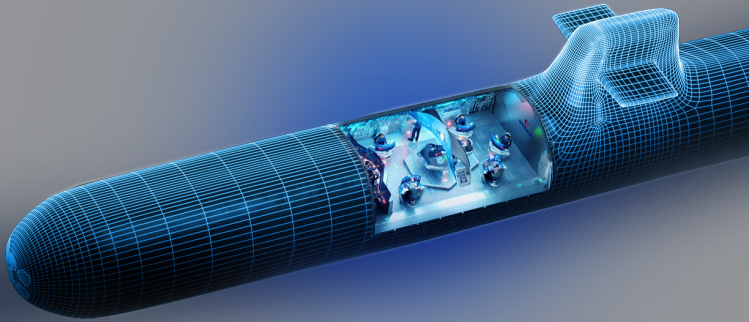# HAVELSAN

SUBMARINE
COMBAT INFORMATION CENTER (CIC)

CONCEPT DESIGN

Product Details:

WHY HAVELSAN CIC CONCEPT DESIGN?

Combat Information Center (CIC) is the brain of the submarine where the operations are managed. CIC contains command and control systems, combat management systems and other subsystems/devices to provide operational and navigational support.

The **personnel-oriented new concept** has been designed to satisfy all types of warfare, engine control and internal management needs of a submarine. The aim with the new design is to increase situational awareness in CIC. In the design forward-thinking yet realistic vision is used.

HAVELSAN pioneering new CIC design is creating new and functional future for CIC/operations centers.

IMPROVED FOCUS OF PERSONNEL & INCREASED CONTROL OF COMMANDER

"Future Submarines" will incorporate a variety of technological features, such as artificial intelligence, machine learning, deep learning, big data, decision support, the internet of things, autonomous systems, robotics systems, augmented and virtual reality, touch, gesture control, and voice activation.

These intelligent software ultimately have to interact with humans. This is where the **human-environment** interaction, which gives life to the CIC design and is as important as the human-machine interaction, comes to the fore.

HAVELSAN concept design was created from a "Realistic-Futuristic" perspective, and "Designing the Future" is fundamental approach.

The Concept has been designed in accordance with human perception/comprehension ability and expectations, in order to reduce personnel errors and increase performance by foreseeing processes in CIC.

HAVELSAN CIC design creates a separate and isolated structure that other activities in other areas in the submarine do not disrupt the main focus of the crew members in the CIC.
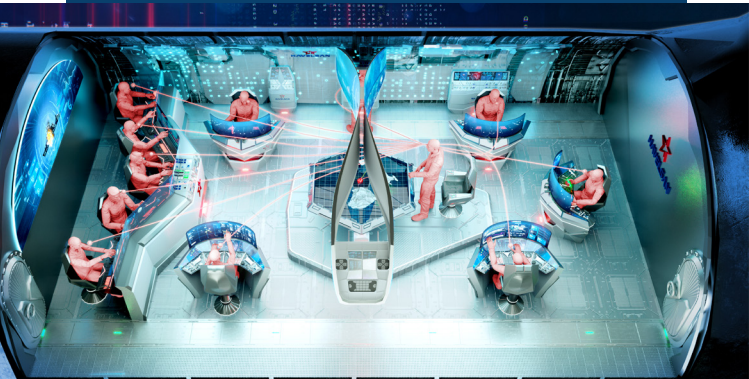
The submarine commander is at the center of the consoles, devices and systems placed in a circular layout, and his/her control over CIC is increased.

A layout compatible with the tasks/responsibilities and business processes of the CIC personnel has been provided.

HAVELSAN CIC
CONSEPT DESIGN

▶ Personnel-Oriented,

▶ Secured and Isolated CIC,

▶ Circular Design,

▶ Commander in the Center,

▶ Continuous and Unblocked Eye Contact,

▶ Easily Seen Main Screens,

▶ Three Main Groups Compatible with
  Tasks and Business Processes,

▶ Central Data Control,

▶ Multifunctional Consoles, Compatible
  with Personnel Requirements,

▶ Reflectable Two-Sided Console Screen,

▶ Simple, Basic and User Friendly Design,

▶ Safety/Physical Conveniences,

▶ Unmanned Submarine Infrastructure,

▶ Applicable to All Operations/Crisis Centers
  on Land and Different Platforms.

HAVELSAN CIC CONCEPT DESIGN GAINS

▶ CIC is secured and isolated from other compartments of the submarine.

▶ Commander, just as an orchestra conductor, is in the center of CIC. All personnel can easily establish eye contact with each other.

▶ Main screens can be seen by all personnel at every angle.

▶ CIC layout is divided into 3 main groups.

    ▶ Operations/Weapon/Navigation Group

    ▶ Command Group

    ▶ Engine Control Group

▶ Data required for weapons/sensors/systems can be controlled centrally.

▶ A horizontal console integrated with the Command Console is placed at the center of the CIC.

▶ The design aims to optimize the layout and to get ready for unmanned submarines.

▶ Design can also be applied to Operation Centers located on different platforms and on land.

HAVELSAN

About Us

HAVELSAN, is the leading Software and Simulation company of Turkey, established in 1982. We provide end to end smart solutions for global needs in the following domains;

▶ Defence

▶ Simulation

▶ Homeland and Cybersecurity

▶ Information and Communication Technologies

We work for technologic excellence and security. We design innovative technologies for more secure, more efficient lives. We develop intelligent systems and produce unique technologies for stronger, faster, superior solutions in all areas which we exist.

For all enquires and details please visit our website.