INTRODUCTORY SPECIFICATION
for
DG-55M/400T ASW PATROL BOAT

PLATFORM :

- Length OA = 54,70 mts
- Length BP = 50,00 mts
- Breadth mld = 8,25 mts
- Depth to main deck = 5,00 mts
- Design draft (fully loaded) = 2,22 mts
- Displacement (100% loaded) = 390 mt
- Speed maximum = 33,0 knots
- Speed service = 25,0 knots
- Speed at continuous patrol = 18,0 knots
- Speed sonar = 12,0 knots
- Range = 2000 n-miles
- Accommodation = 34 (3 officers + 9 petty officers + 19 ratings)

OTHERS :

- Low RCS
- Low IR signature
- Low underwater acoustic signature
- High sea keeping performance and maneuverability
- High survivability
- 100% redundancy with two fully independent engine room and control systems

MAIN PROPUSLION and ELECTRİC SYSTEM :

- 2 x 3500 kW high speed diesel engines
- 2 x FPP (dia about 2000 mm) with shaft line
- 2 x 250 kW aux-diesel gen-sets + 1 x 99 kW emergency gen-set

SENSORS and NAVIGATION AIDS :

- 25 kW X-bang radar with ARPA/ECDIS capability
- Electro-optic low-weight, multi-purpose, thermal imaging sensor for pilot age/navigation, surveillance, search and rescue, automatic tracking, target classification and targeting
- Low frequency Sonar,
- Optical Gyro compass with INS capability
- Echo sounder with two transducers
- Electromagnetic log
- Meteo sensor
- DGPS
- WECDIS

WEAPONS :

- 1 x 40mm Oto-Melara twin compact gun
- 2 x 12,7 mm stabilized machine gun with IR imaging and remote control capability
- ASW rocket launcher
- Depth charges

In accordance with the mission definition, PB is considered to operate in shallow waters.

PB will comply with the rules of the following organizations: NATO, IACS member International Class Organization, CE, NAVSEA, BV, NES, ISO, DIN, VG, VDE, IEC, IMO, SOLAS, MARPOL, and COLREG, and the national state.

PB will be registered by a IACS member Class as a High Speed Boat.

COMBAT SYSTEM CAPABILITIES (DEFENSE AND ATTACK) :

In the Combat Information Center of the ship, there will be 2 (two) consoles allocated to E/O Director and Sonar and, 1(one) domestically designed and manufactured DRT Plotting Table, and near to the armchair of the Commanding Officer, with the best visibility, an LCD panel to be able to select and monitor either one of the navigational radar(at the bridge), E/O Director's console, Sonar console. All of this configuration shall make up the Combat Information Center (COC) of the ship.
Combat system of the ship will have the capability to search, identify, classify and engage capabilities the air, surface and underwater targets without loss of performance.
Combat system of the ship shall fulfill reconnaissance, monitoring, patrolling at the straits / naval bases and ports, and shore waters and shall also provide anti-submarine warfare mission functions.
All the systems shall completely fulfill their functions at Sea State 5 (five) and at lower conditions.
Necessary combat systems and equipments which shall fulfill the above defined missions will be installed to the ship.

SURFACE WEAPONS AGAINST AIR TARGETS :

In the engagement against air targets, main gun and the machine guns installed at starboard and port side of the ship will be used .

SURFACE WEAPONS AGAINST SURFACE TARGETS :

In the engagement of short and medium range surface targets, main gun and the machine guns installed at starboard and port side of the ship will be used .

UNDERWATER WEAPONS AGAINST UNDERWATER TARGETS :

In the engagement against underwater targets, according to target information obtained from sonar system, anti-submarine rockets and depth charges will be employed.

SURFACE DETERRENTS :

It will have self-defense capabilities, by means of main gun and machine guns on the starboard and port side, against supersonic/ subsonic guided missiles and guided bombs and, air and surface targets.

UNDERWATER DETERRENTS :

It will have the capability to execute anti – submarine warfare, by using bow launched ASW rockets and depth charges.

COMMAND / CONTROL / COMMUNICATION / COMPUTER / INTELLIGENCE :

Internal and external communication capabilities shall exist in the combat configuration and will be carried out in open and crypto modes as CW, data, voice communication at HF/VHF/UHF bands.
Internal communication system of the ship will be consisted of; distributed user's stations and, internal communication systems and sub-systems that provide the connection between the stations.
Internal communication system of the ship will have the capability of station- to-station internal communication between the stations on the vessel, conference call, external communication, alarm circuit and public announcement circuit.
Alarm system, public announcement system, ship entertainment system (TV and central broadcasting system) , S/P telephone system, ship telephone system, LAN(Local Area Network) will be considered within the internal communication system of the ship.
External communication of the ship will be consisted of external communication system and sub-systems which will provide safe and fast voice and data communication.
External communication system of the ship will be consisted of Communication Control System (CCS), Message Processing System(MPS), Communication Receivers, Transmitters and Receiver-Transmitter sub-systems.
There will be 1 (one) underwater telephone in the configuration of Underwater Communication System.
The vessel has an ECDIS System fully capable of representing the operational data in S-57/63 format and also Additional Military Layers.

SEARCH / RECONNAISSANCE :

Air and surface observation and reconnaissance will be conducted with E/O director.
Secondary sensor for reconnaissance and observation will be the navigation radar of the ship .
Medium range underwater reconnaissance will be conducted by means of hull mounted sonar of the ship.

The sensor and weapon suites may be changed regarding the users requests.