



**Interceptor Boats  
for  
Coastal Surveillance**

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# Indian Coastal Security

- Vast coastline of 7517 km
- ICG needs minimum 150 Ships / Boats & 100 aircraft for securing coast and maritime interests to reasonable levels
  - **By 2018**
- Desirable levels is 154 ships, 126 boats and 139 aircraft
  - **By 2028**



Ref : Public Accounts Committee (2015-16)



- **Interceptor Boats an optimal solution for enhancing coastal surveillance**
  - **High speed**
  - **Low cost**
  - **Small crew**
  - **Ease of maintenance**
  - **Low construction cycle time**



# Interceptor Boats: Role & Functions

## Role

**Day & Night Coastal Patrol**

**Surveillance**

**High Speed Interception**

## Functions

**Patrol/interdiction ops with sea-air units**

**Anti-smuggling, Anti-piracy and Anti-drug trafficking & surveillance**

**Launch & recovery of boarding/landing force**

**SAR and disaster relief operations**



# Indigenous Interceptor Boats

- L&T has in-house designed and constructed a series of Interceptor Boats indigenously for Indian Coast Guard
  - **54 Boats on Order**
  - **28 delivered so far**







## Requirements

Hull form for quick take off speed

Light weight

High Speeds

Stable operations in high Sea States

Excellent Maneuverability

Shallow water Operations

## Indigenous IB

Optimized Planing Hull with take off speed @ 30 Kt

Hull - Marine Grade AA 5083/6082  
Equipment – Compact/light weight

Speeds > 45 Kt

Excellent Seakeeping; can operate up to SS - 3 & survive up to SS - 6

WJ cum Steering buckets offer excellent maneuverability

Max Draft between 1.3 – 1.4 m only



# Sea Keeping

**Excellent Sea Keeping & Maneuvering**





# Propulsion, Steering & Controls

## Requirements

Engines capable of delivering adequate power for High Speeds

Propulsion for Quick Accelerations & Agility

Maximum Range & Endurance

Economical Speeds with low fuel consumption

## Indigenous IB

Twin High Speed Engines of 2x2720 kW –High Power/Wt ratio

**Option 1** –Water jet propulsion & Hydraulic controls

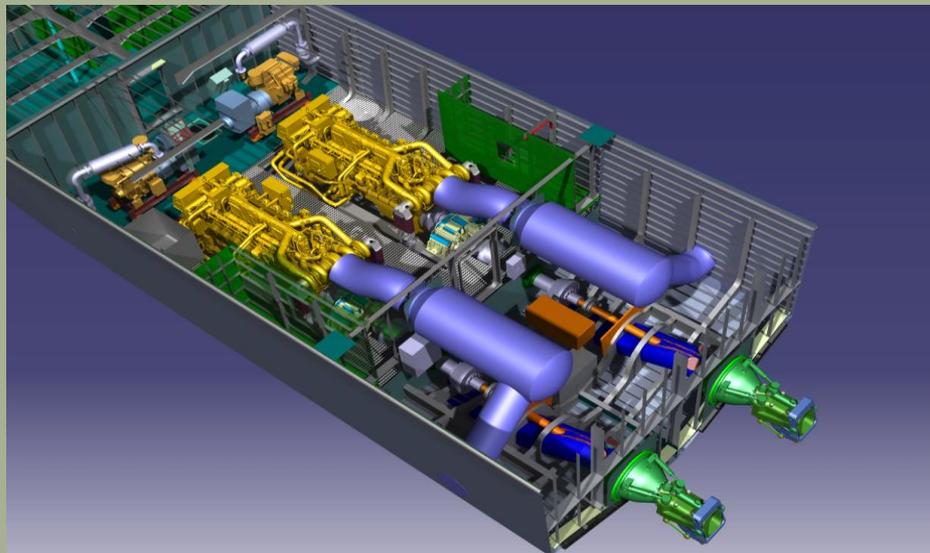
**Option 2** – Fixed Pitch Propeller & shafting offer for export customer

IB Range > 500 nm &  
Endurance > 72 h

Engines with low SFC @ 20 Kt



# Propulsion, Steering & Controls



**Ergonomically Designed Engine Room & Water Jet Compartment**

**Integrated Bridge Console for Machinery, Steering & Alarms for Operational Ease**





# Accommodation & Facilities

## Requirements

Comfortable Accommodation for Officers & Sailors

Humidity & Temperature controlled compartments



## Indigenous IB

Ergonomically designed accommodation for 02 Officers & 11 Sailors

Closed circuit HVAC system for Bridge, Accommodation spaces





# Interception / Surveillance

## Requirements

Surveillance

Day & Night Vision Capability

## Indigenous IB

- Stabilized High resolution Electro-optic Camera
- Thermal Imaging Camera
- Night Vision Goggles
- Hand held FLIR cameras





# Navigation Equipment

## Requirements

Appropriate Navigation Aids

## Indigenous IB

X – Band radar with ARPA tracking

- Quick Settling Gyro
- EM Speed Log
- Digital GPS
- ECDIS with color plotter & AIS
- Navigational lights





## Requirements

Reliable High Fidelity communication

Distress Equipment for contingencies

## Indigenous IB

- Fleet Broad Band with data/video conferencing
- High Frequency Tx/Rx 6020
- Medium Frequency/HF Tx/Rx
- V/Ultra High Frequency HF Tx/Rx

- Electronic Position Indicating Radio Beacon (EPIRB)
- Search & Rescue Transponder (SART)
- Mobile Satellite Services (MSS) Tx/Rx



# Search & Rescue Operations

## Requirements

Quick Launch & Recovery for Search & Rescue (SAR) Ops

## Indigenous IB

- 4.7 m SOLAS approved high speed SAR boat with powerful OBM
- Life rafts for 110% of Crew on each side
- SOLAS approved inflatable Life Jackets for twice crew strength





# Offensive Capabilities

## Requirements

Suitable weaponry

Protective Clothing onboard

## Indigenous IB

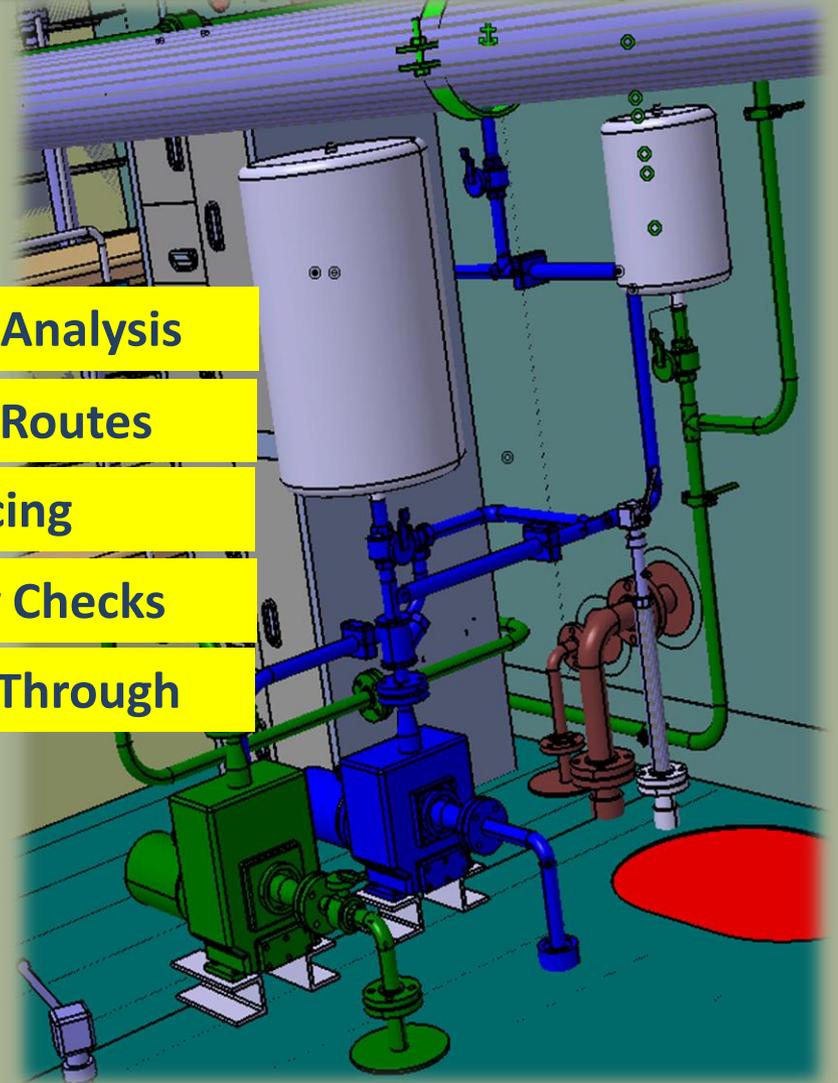
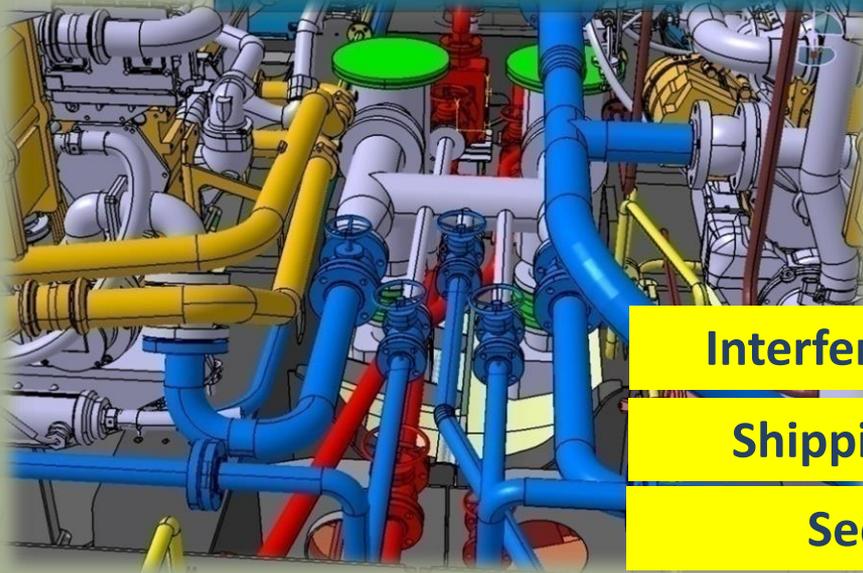
- Guns
  - 1 x 12.7mm HMG
  - 1 x 7.62 LMG
- Bullet Proof Jackets & Helmets





# Total Digital Solution

## 3D Modeling of Structures, Equipment, Piping, Cabling



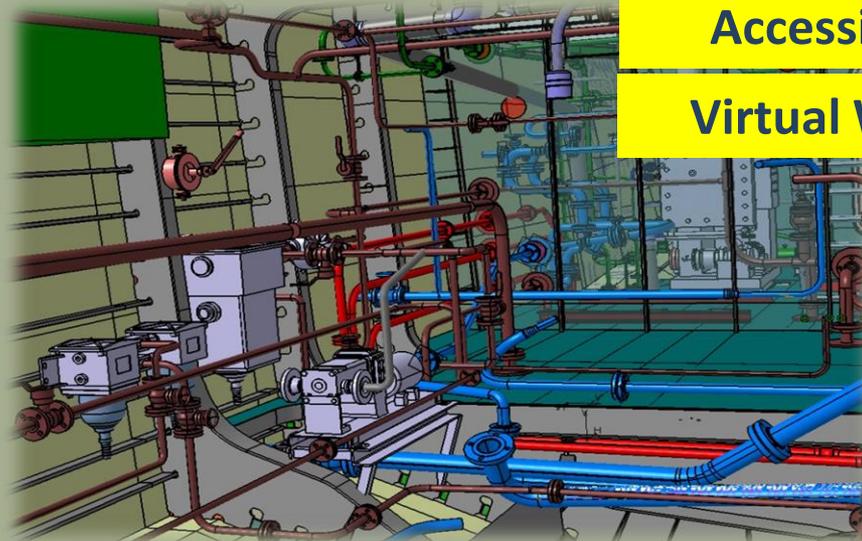
**Interference Analysis**

**Shipping in Routes**

**Sequencing**

**Accessibility Checks**

**Virtual Walk Through**





# Optimal Compartment Layouts

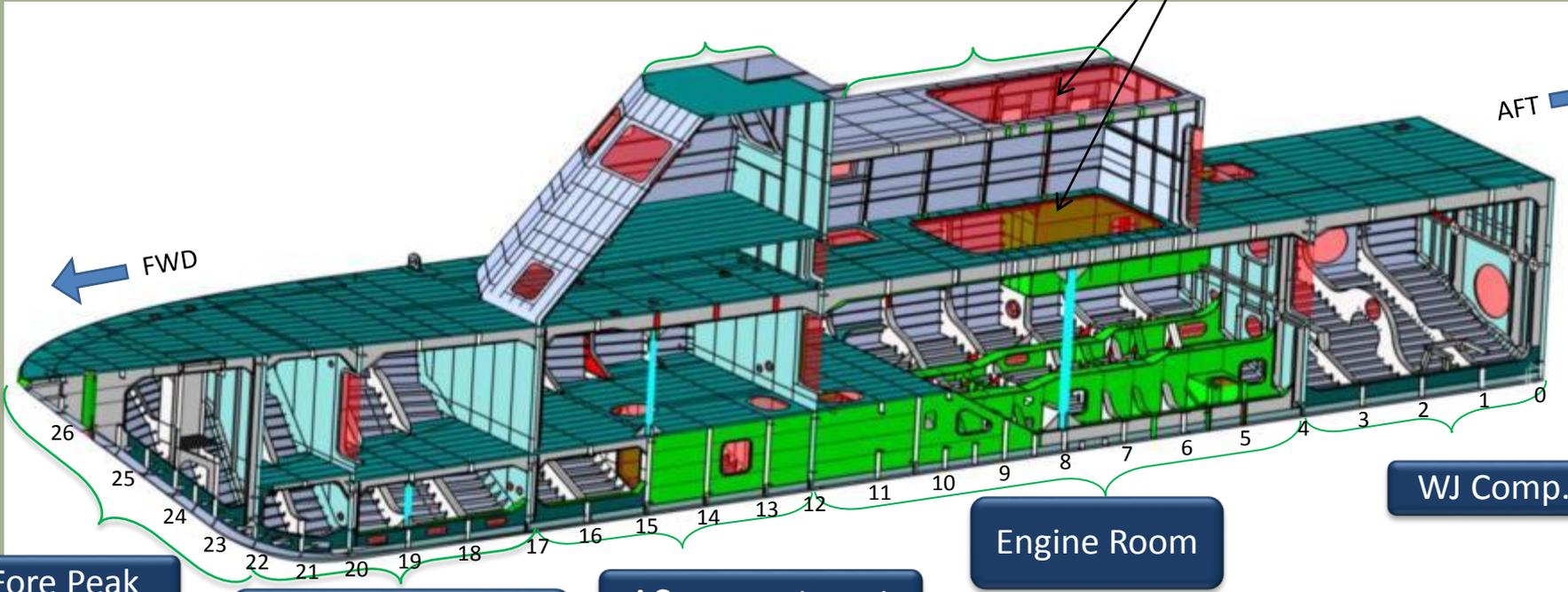
Wheel House

Galley & Mess

Soft Patch

Weather Deck (Fwd)

Weather Deck (Aft)



Fore Peak

Accommodation area

AC compartment

Engine Room

WJ Comp.



**Indigenous Interceptor Boats : An Excellent Product  
Exemplifying  
Make In India to Serve The World**

# Thank You

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