

Logistics Support Vessel HNoMS Maud

Sung Jin, Lee - DSME
Ian Wakeling - BMT

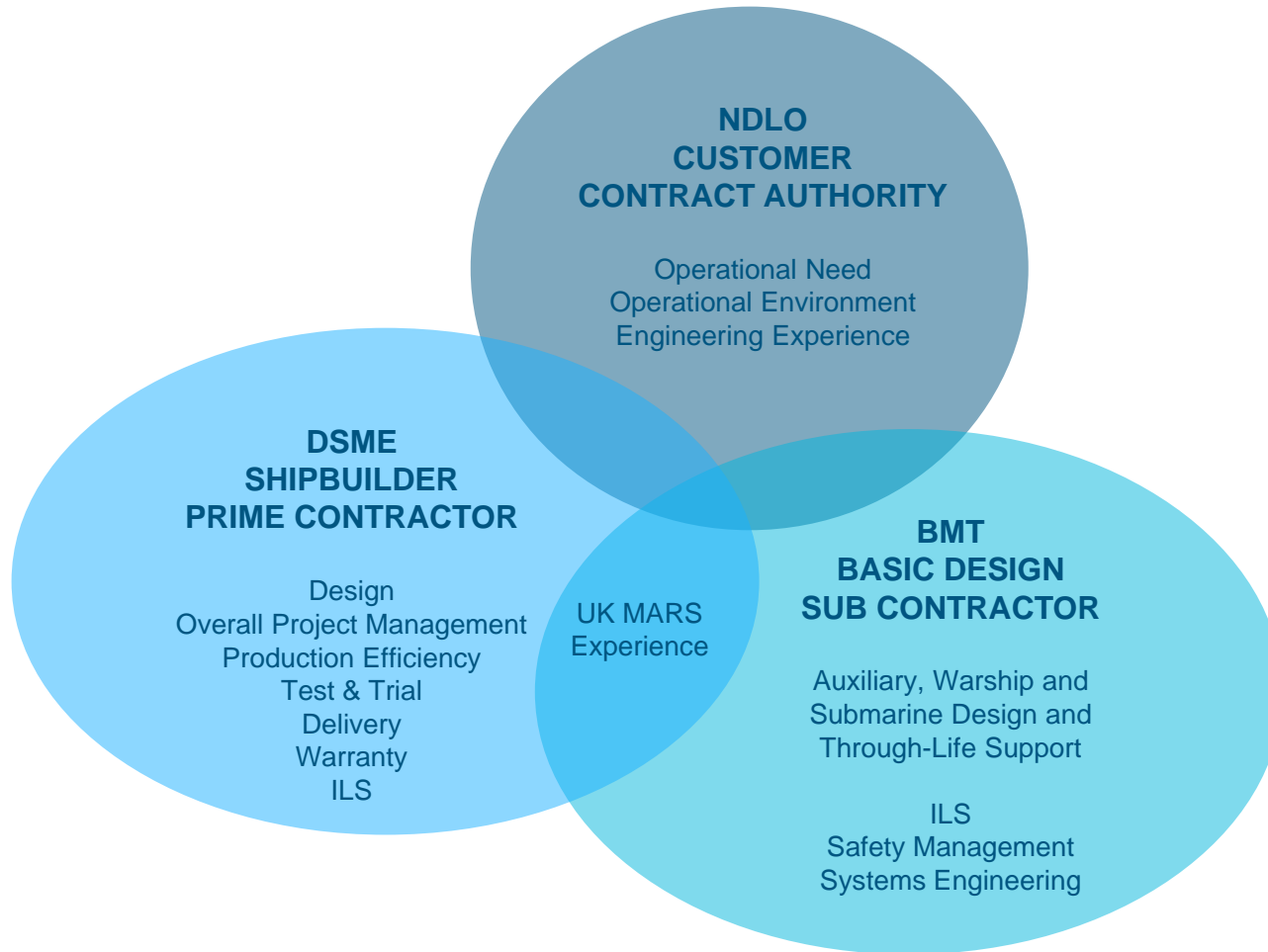


**NORWEGIAN
ARMED FORCES**

- **THE LSV Team**
- **LSV Programme Status**
- **Key Features of the LSV Design**
 - RAS
 - Hospital
 - Aviation
 - Mother Ship
 - C4I
 - Hull Form and Propulsion
- **What Next?**



THE LSV Delivery Team



HOW WE WORK TOGETHER

CONTRACT:

What we will do
How we know its complete

PROCESSES & INFORMATION MANAGEMENT:

Helping us to do it

DDWG's:

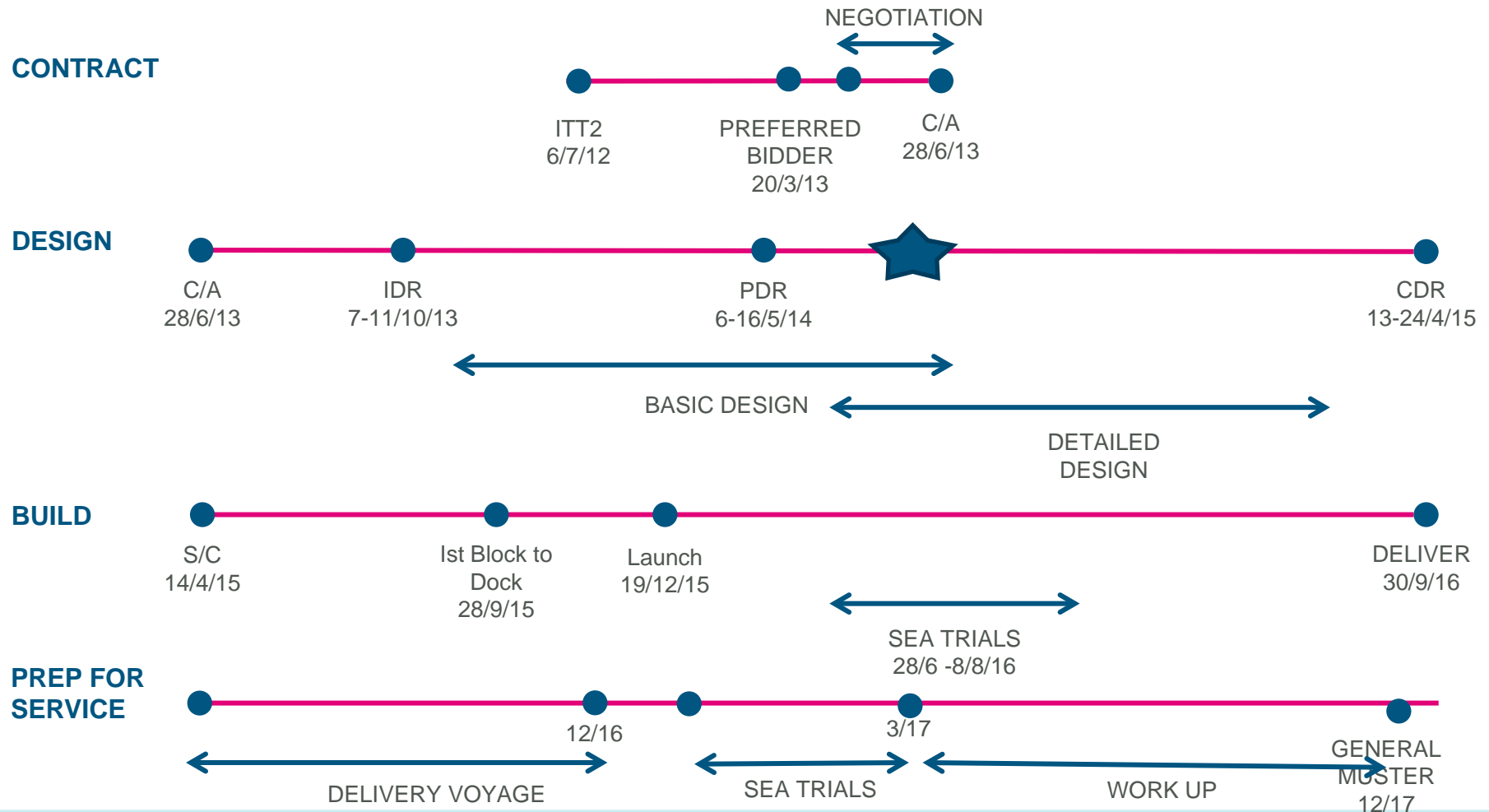
The way we did it

PARTNERING CHARTER:

How we will deliver



Programme Status



LSV Capabilities and Particulars

Highly Flexible Multirole Vessel

- **Replenishment at Sea:** DFM F76, AVCAT F44, Fresh Water, Stores, Ammunition,
- **Support Ship for Norwegian Task Force:** Nansen class frigate, Skjold-class corvettes, Mine countermeasure vessels, Ula-class submarine, Small craft (CB-90)
- **Humanitarian Relief:** hospital, containers
- **Helicopter Operations**
- **Command Platform**
- **Military Support**

Length overall	180.7 m
Beam:	25.9 m
Design draught	8.6 m
Speed	18 knots

Primary fluid cargo capacities:

DFM F76: 7000 te / AVCAT F44: 300 te

Primary solid cargo capacities:

40x TEU / 200 te ammunition or a mix of vehicles and boats.

Dual abeam RAS rigs and stern reel

25 tonne SWL deck crane

Side ramp

Flight deck and hangar for organic NH90

(stowage for 2 x NH90)

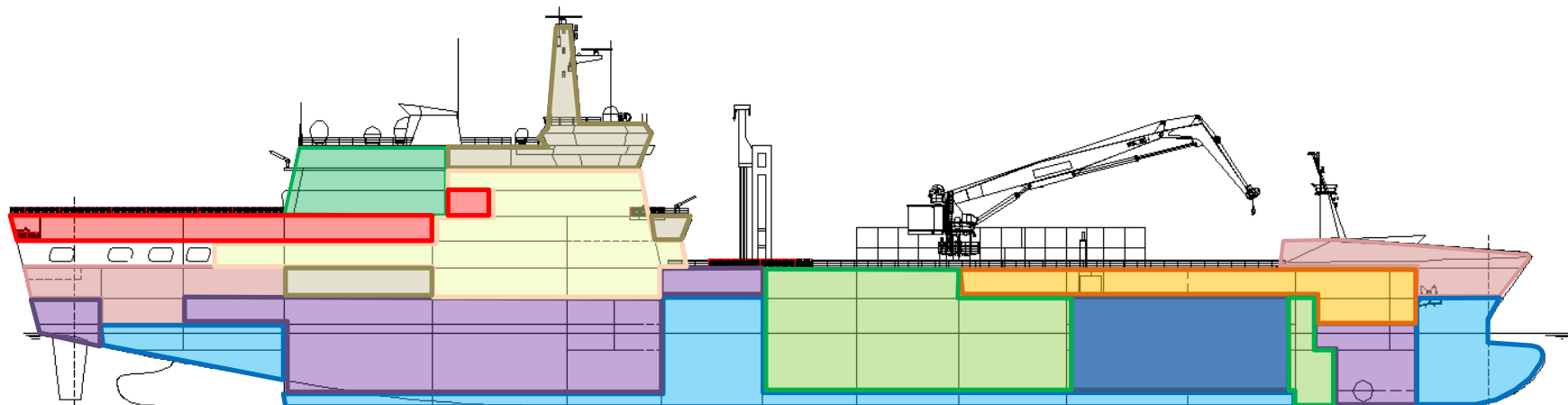
Large medical complex





NORWEGIAN
ARMED FORCES

LSV Arrangement



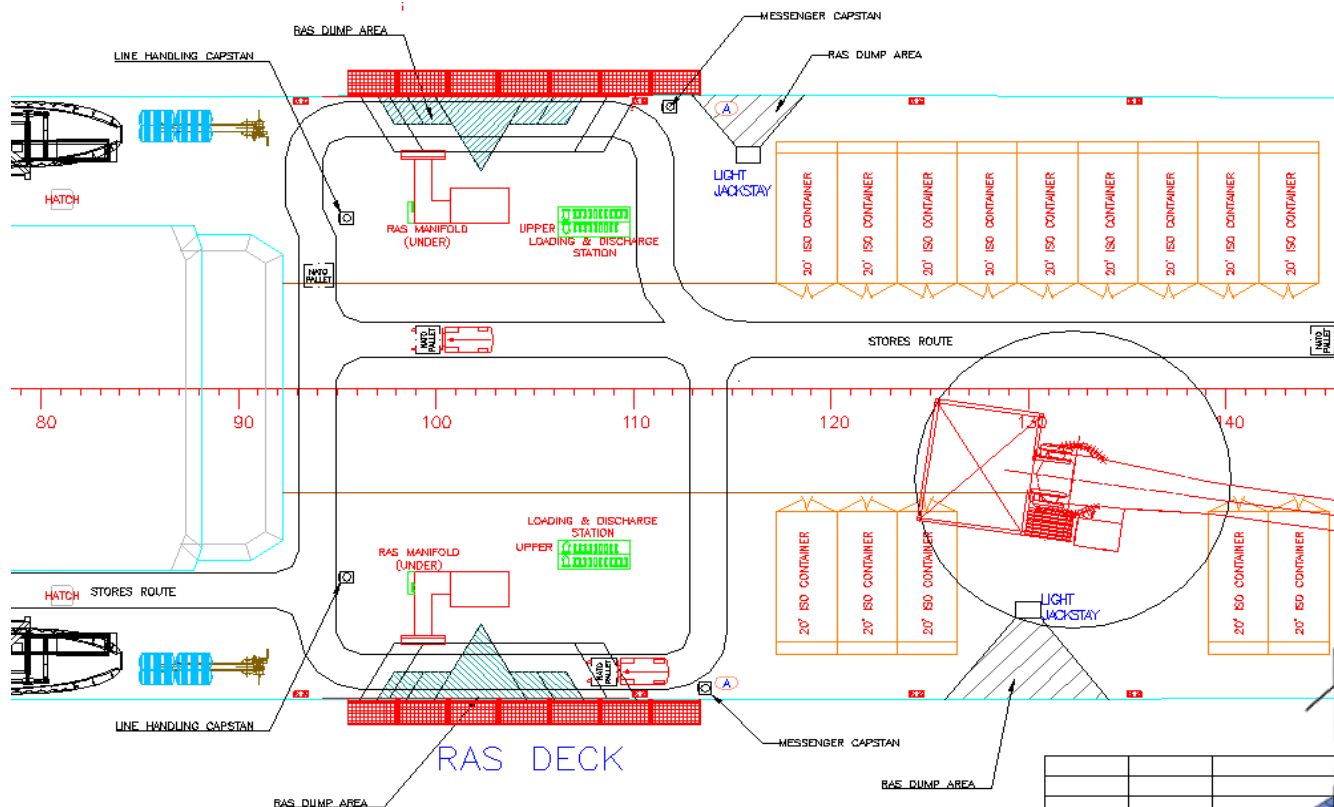
- | | |
|------------------|-----------------------------------|
| Accommodation | Ships Tanks |
| Cargo Fluid | Command, Control and Surveillance |
| Cargo Solid | Machinery |
| Cargo Ammunition | Stores |
| Medical | Aircraft |





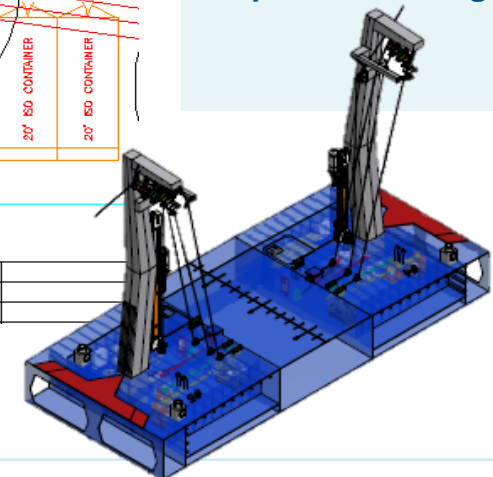
NORWEGIAN
ARMED FORCES

RAS Arrangement & Cargo Handling



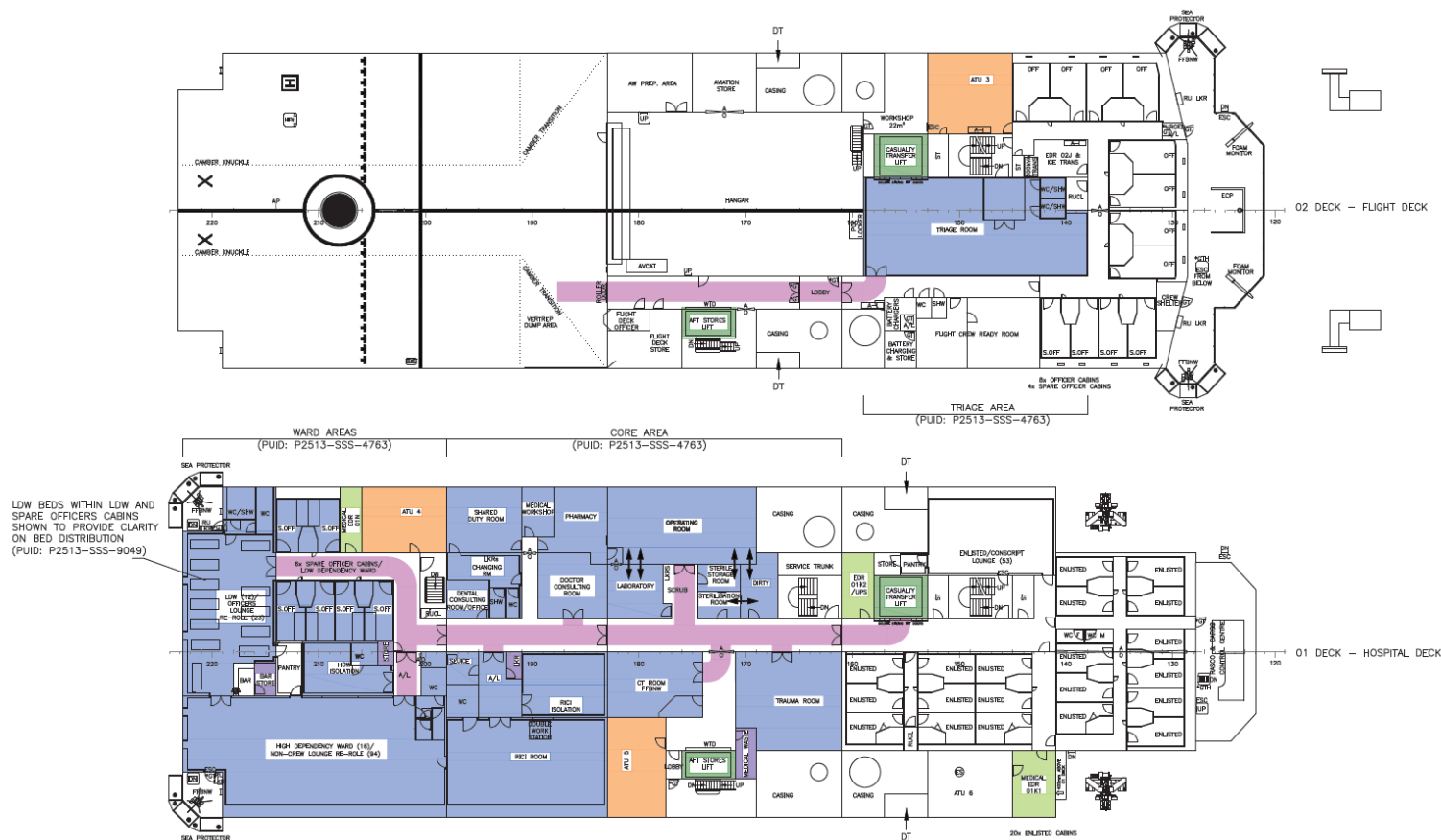
Key Information:

- Two abeam stations
- Clear stores routes
- Below deck equipment
- Anti-icing
- RAS ready room
- Refrigeration container for perishable cargo





Hospital Arrangements





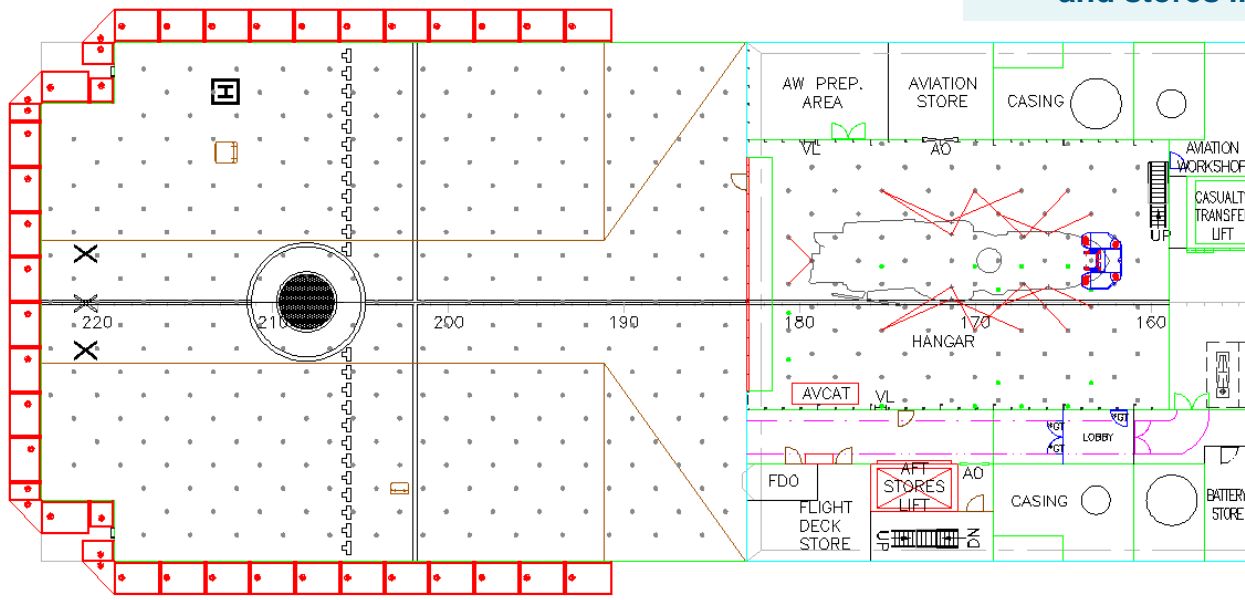
NORWEGIAN
ARMED FORCES

Aviation



Key Information:

- Large flight deck to accommodate NH90, EH-101 Merlin and CH53 Sea Stallion
- Hangar for level 2 maintenance of one NH90 or stowage of one operational and one spare NH90.
- Good access to triage area / medical lift and stores lift





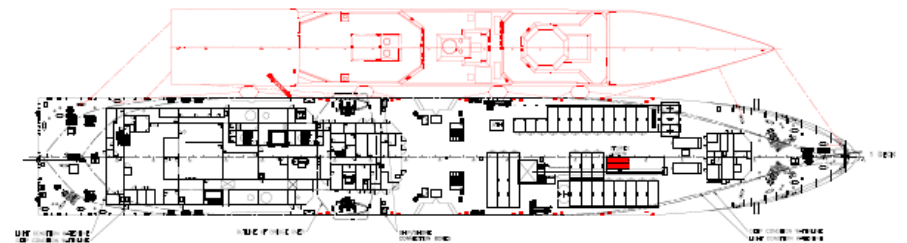
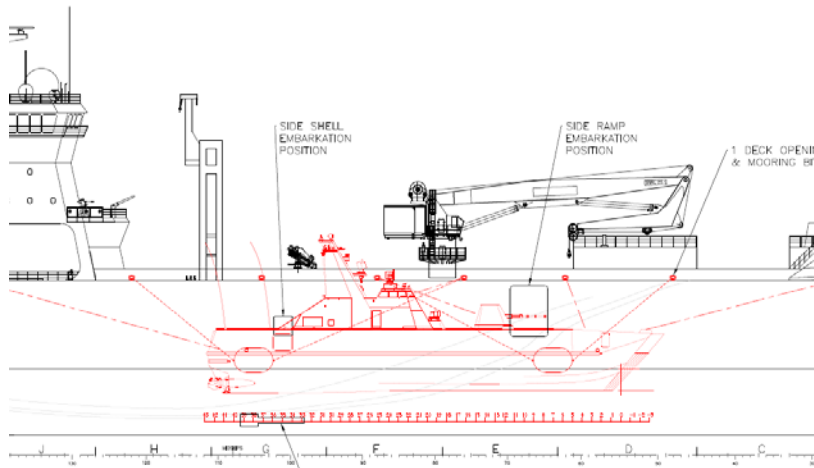
NORWEGIAN
ARMED FORCES

Mother Ship



Key Information:

- Mooring for vessels and submarines alongside
- Side Access Doors
- Support cranes for replenishment
- Hose and Power Connections
- Support for Crews inc. Catering, Gym and Sauna



Integrated Weapon System

Key Information:

Navigation – Integrated Bridge (IBS)

- Full suite

Command & Control Systems

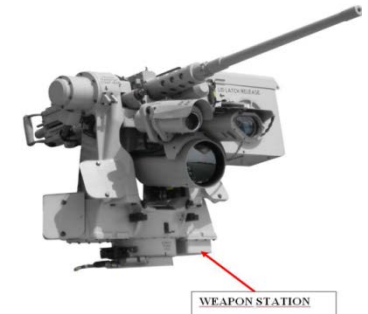
- ECDIS / AIS
- Autopilot

Sensors

- Radars X/S Band and IFF
- Optical Bearing Device (OBD)
- Infra Red Camera
- Log

Integrated Communications System (ICS)

- External Communications
 - Strategic HF & MILSAT
 - Tactical V/UHF
 - Civil GMDSS
 - Security
- Internal Communications
- Information Systems



Operations Room Helicopter Control

- Helo Approach Radar
- Landing Aids

Weapons & Countermeasures

- 4 x Sea Protector (Future Installation)
- Small Arms

Integrated Platform Management System (IPMS)

- Damage Control



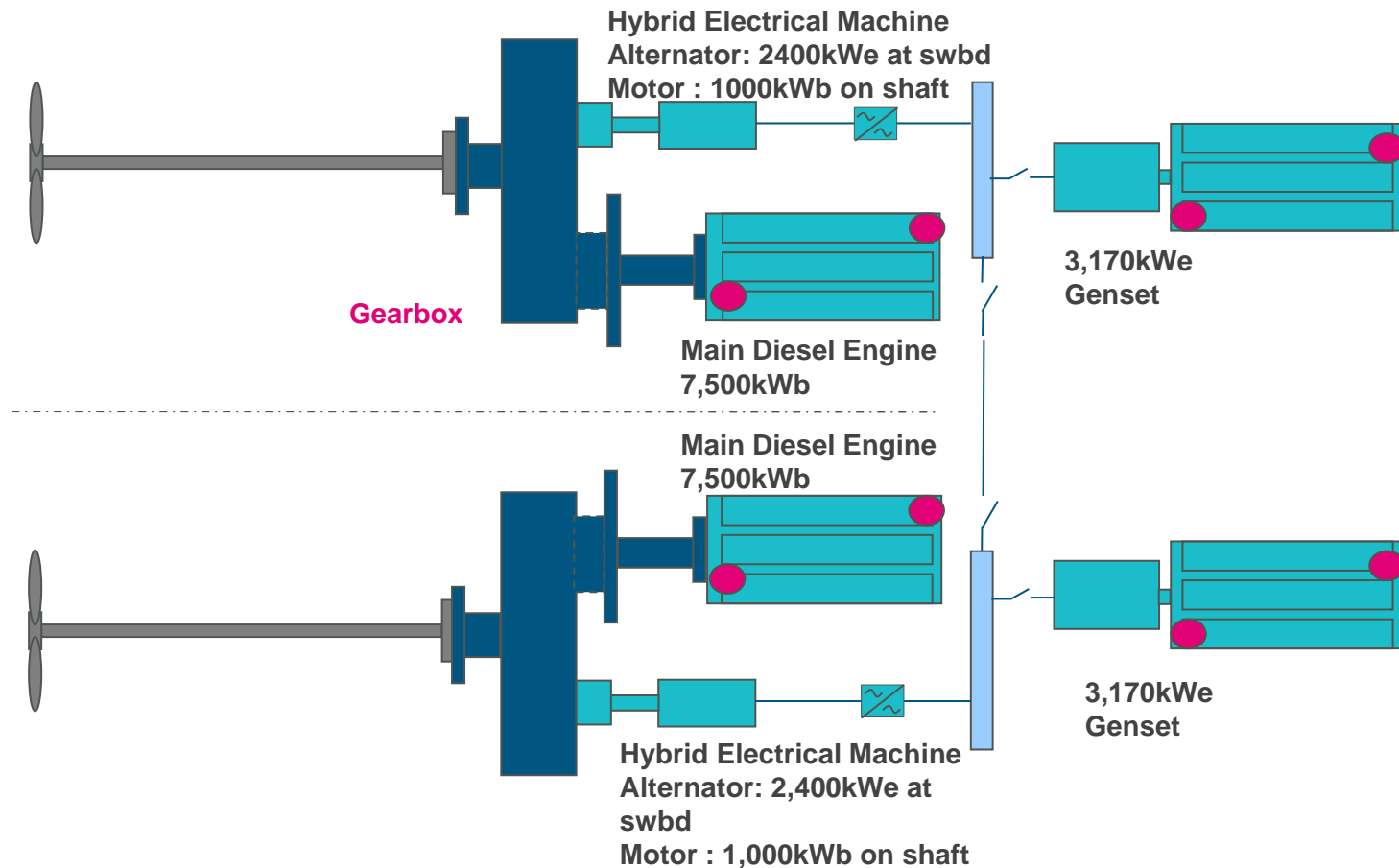


NORWEGIAN
ARMED FORCES

Hybrid Power and Propulsion Solution



Combined Diesel Electric or Diesel (CODLOD) – Flexible Operation, Low Life Cycle Cost



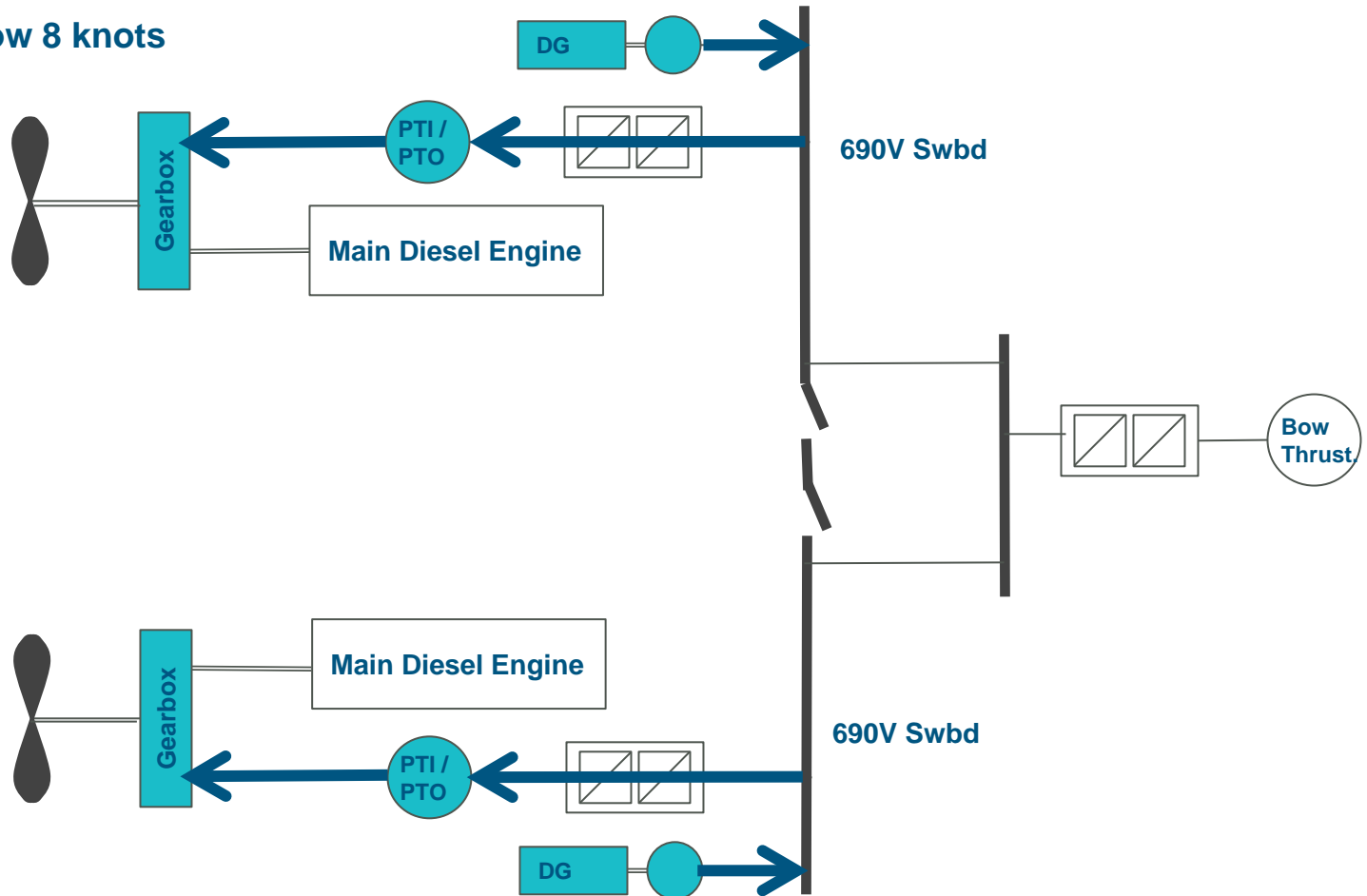


NORWEGIAN
ARMED FORCES

Modes of Operation: Transit (Electric)



Operation below 8 knots



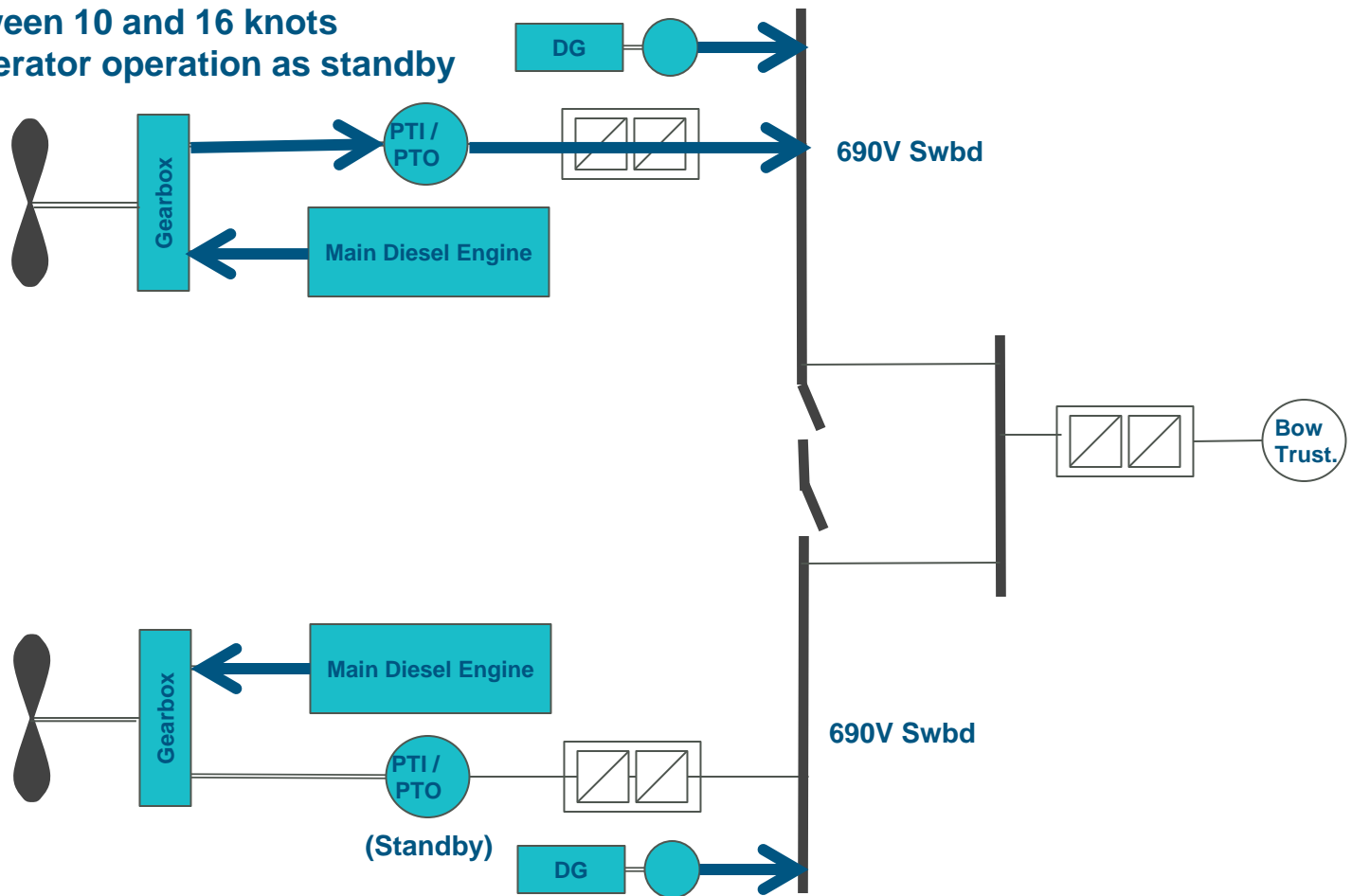


NORWEGIAN
ARMED FORCES

Modes of Operation: RAS Operations



Operation between 10 and 16 knots
One Shaft Generator operation as standby



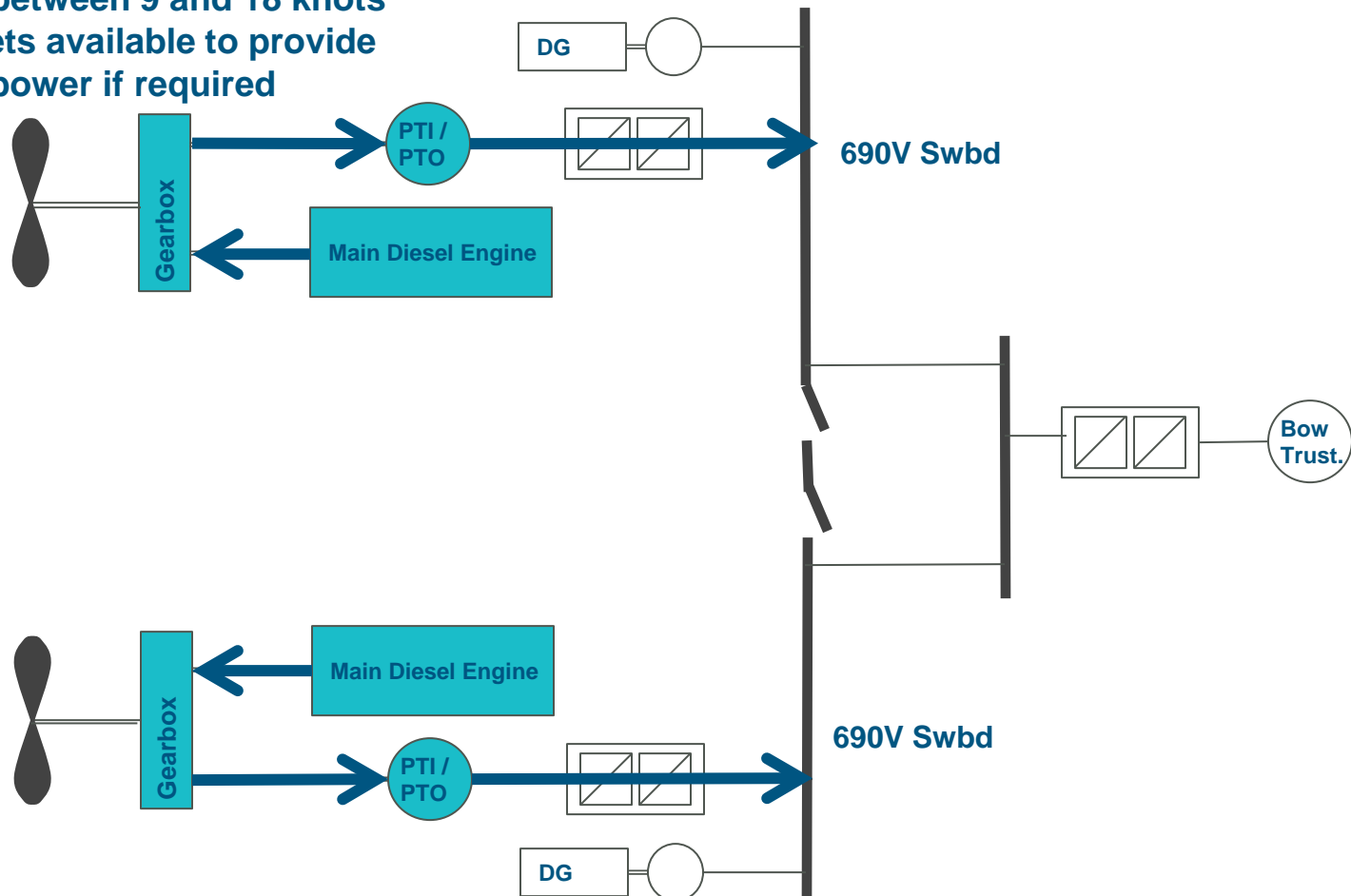


NORWEGIAN
ARMED FORCES

Modes of Operation: Transit ME



Operation between 9 and 18 knots
Main DG sets available to provide
additional power if required



What Next for LSV?

- Detailed Design
- Build
- Inspection, Tests and Trials
- Delivery
- Warranty – With Support
- In Service Technical Support
 - Design Management
 - Equipment Management
 - Maintenance Management
 - Spares Management
 - Safety Analysis



What Next for DSME

- **The Next Auxiliary Project**
 - Modified Design for Australia
 - New Zealand
 - Other Countries
- **Combatant and Non-combatant Ships**
- **Submarines**
- **In Service Support**



Patrol Vessel – BMT design



Thank you !!

