NORWEGIAN ARMED FORCES
Norwegian Defence Logistics Organisation

P2513 Logistikk og Støttefartøy

for

SMS fagseminar for bedriftsmedlemmer

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Kommandørkaptein
PL P2513

16 oktober 2013

Agenda

NORWEGIAN ARMED FORCES
Norwegian Defence Logistics Organisation

Bidders Conference 5 September 2012

DSME, HHI, Damen, Bergen Group, Navantia, Fincantieri

Kontraktsignering 28 juni 2013

NORWAY (Far North)
-
Europe

”Norge”

South Korea (Far East)
–
ASIA

”Taehan-min’guk”

KONTRAKTSFORHANDLINGER
9 april – 28 juni

DSME (BMT) – P2513

Kontraktssignering 28 juni 2013

Milepæler

– Contract Award	: 30 June 2013
– PDR	: April 2014
– CDR	: April 2015
– Start Steel Cutting	: May 2015
– Start Block Erection in Dock(Keel Laying)	: November 2015
– Float Out from Dock	: February 2016
– Launch Ceremony	: February 2016
– Complete Harbour Trials	: June 2016
– Complete Sea Trials	: June 2016
– Deliver Ship	: 30 September 2016

Industriavtale (ICA)

- Inngåelse av ICA ligger som en forutsetning fra FD for inngåelse av kontrakt.
- 4 juni 2013 OK
- 100% av kontraktsummen

P2513 Logistikk og Støttefartøy

DSME konsept

Kontrakten innfrir Effektmål 1 og 2

- Effektmål 1:
  - Sikre understøttelse av maritime styrker under operasjoner og øvelser nasjonalt og internasjonalt
  - Gi deployeringsevne og begrenset sjøbasekapasitet for maritime strukturelementer
  - Ivareta nødvendig logistikkstøtte slik at Norwegian Task Group kan ha en utholdenhet på minimum 30 dager

- Effektmål 2:
  - Kapasiteten skal kunne tilføre transport- og logistikkstøtte til Hæren, Luftforsvaret og Heimevernet, samt sivile beredskapsmyndigheter, **basert på fartøyets iboende kapasitet**

The LSV Delivery Team

NDLO – P2513 LSV

DSME (Prime contractor)

(H7048)

- **World Leading Shipyard**
- Deliver 60 ships per year
- **On Time Commercial Vessels, Warships, Submarines, Offshore**

BMT Group (Basic design + ILS)

- Aegir 18NR & XR design (2013)
- **Independent Engineering Design company**
- **Warship, Submarine, Auxiliary Design and Through Life Support**

Delivering the UK MARS Tanker Project

OKPO YARD LAYOUT

Dry Dock Capa. : Max. DWT
Floating Dock Capa. : Lifting Capacity

YARD SIZE

4,900,000 m²

TOTAL AREA

Covered Shop : 560,000 m²
Open Working Area : 1,470,600 m²
Total Outfitting Quay : 8,746.7 m

40000 mann jobber på selve verftet

	DRY DOCKS		HEAVY ZONE		FLOATING DOCKS				FLOATING CRANE
	No.1	No. 2	G1	G2	RD-3	RD-4	RD-5	U/B	
Capacity (ton)	1,000,000	630,000	-	-	80,000	120,000	150,000	26,000	
Length(m)	529	539	320	313.5	336	408	408	221.5	
Width(m)	131	81	80	205	59.2	66.6	68.2	47.9	
Depth(m)	14.5	14.5	-		21.0	23.5	25.3	20.5	
Crane	G1 x 900 tons J1 x 200 tons J4 x 60 tons T1 x 60 tons	G1x 900 tons J4 x 60 tons T1 x 70 tons	G1 x 900 tons	G1 x 900 tons	J 2 x 35 tons	J 2 x 50 tons	J2 X 50 tons	Quay Crane	2 x 3,600 ton

① Drydock 1 ② Drydock 2 ③ Heavy Zone ④ RD-3 ⑤ RD-4 ⑥ RD-5 ⑦ Launching Barge ⑧ Floating Crane

LSV Consept

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:** Skjold-class corvttes, Mine countermeasure vessels, Ula-class submarine, Small craft (CB90) and Nansen class frigates
- **Humanitarian Relief:** hospital, containers
- **Helicopter Operations**
- **Command Platform**
- **Military Support**
- Range(nm @ 16 knots) 10000 nm
- Crew 43+116+48 = 207

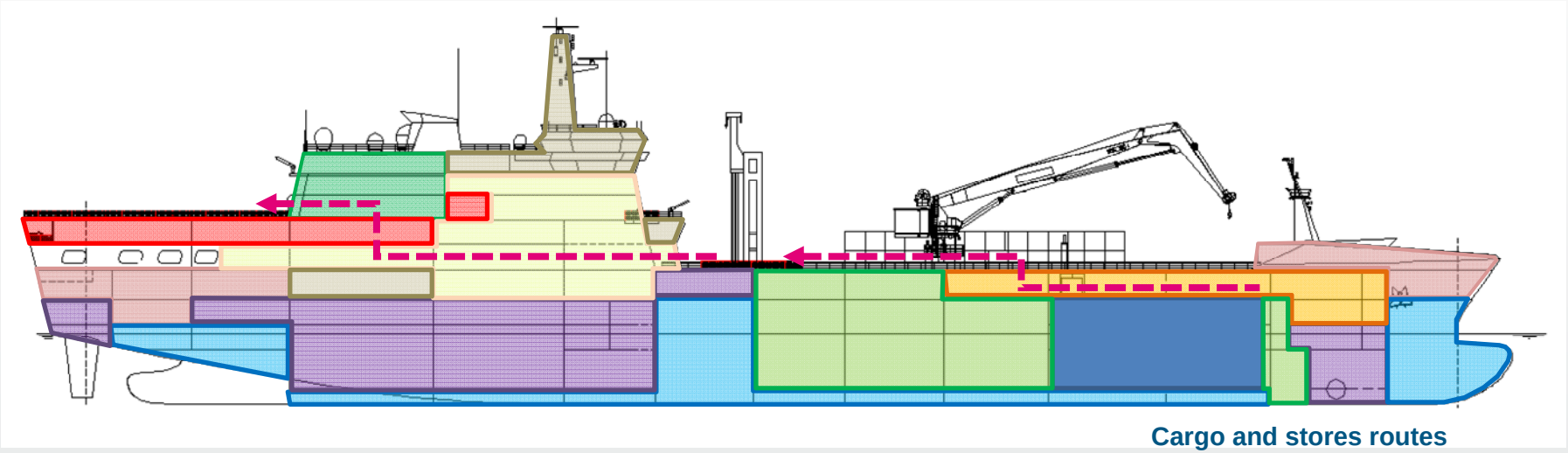
Length overall	**180.7 m**
Beam:	**25.9 m**
Design draught	**8.46 m**
Speed	**18 knots**
Displacement	**26260 tons**

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

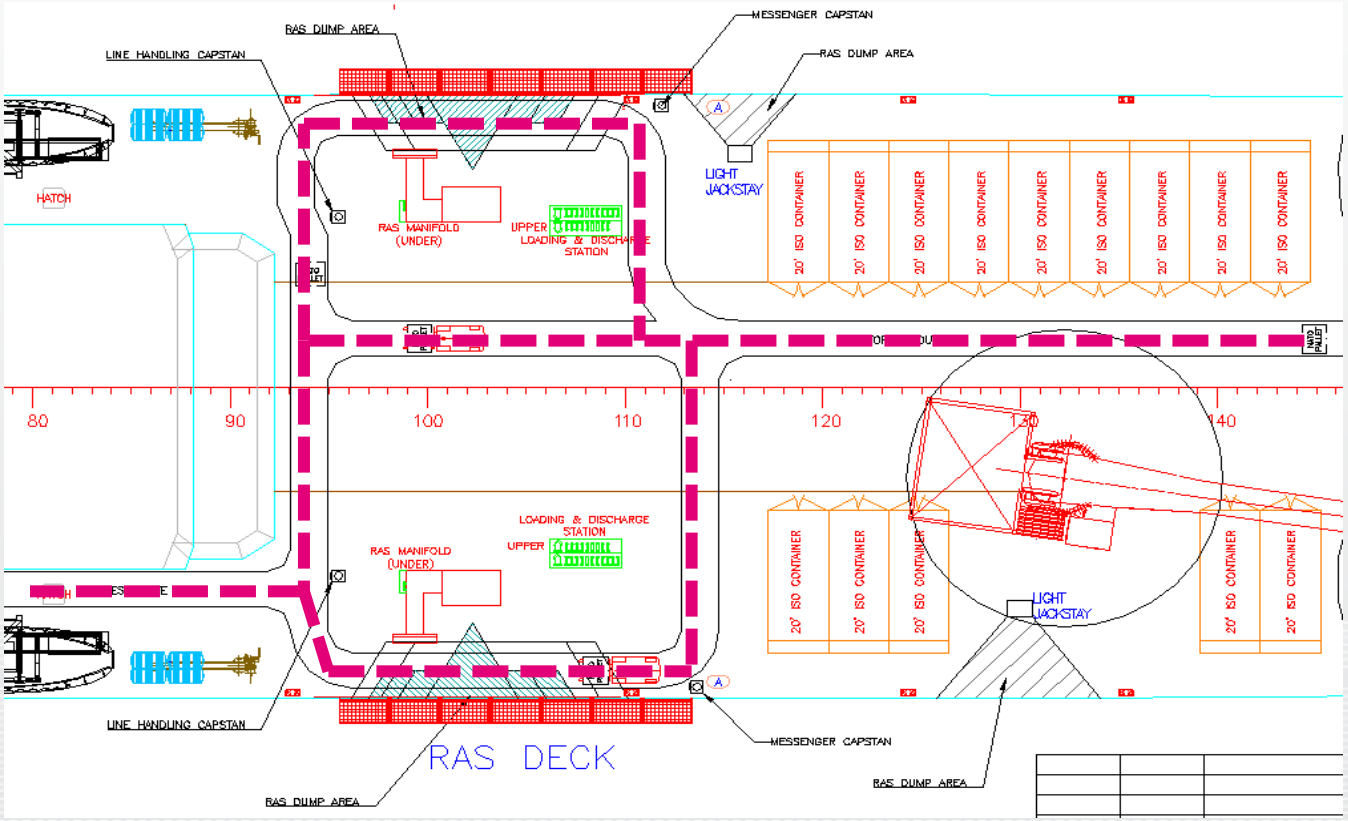
LSV Arrangement



Cargo and stores routes

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

RAS Arrangement & Cargo Handling

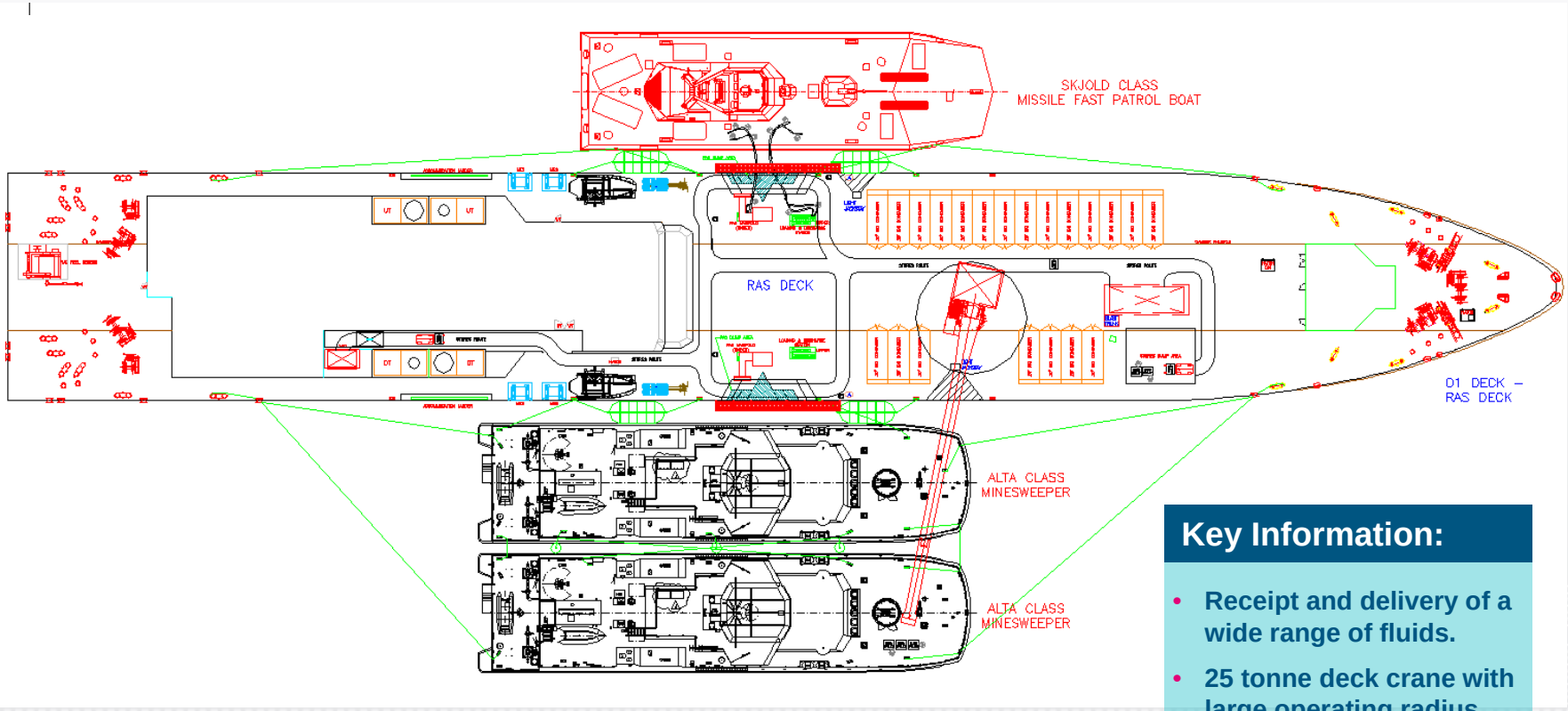


Key Information:

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

RAS Arrangement & Cargo Handling

Solid and Liquid stationary RAS with Alta Class and Skjold Class:

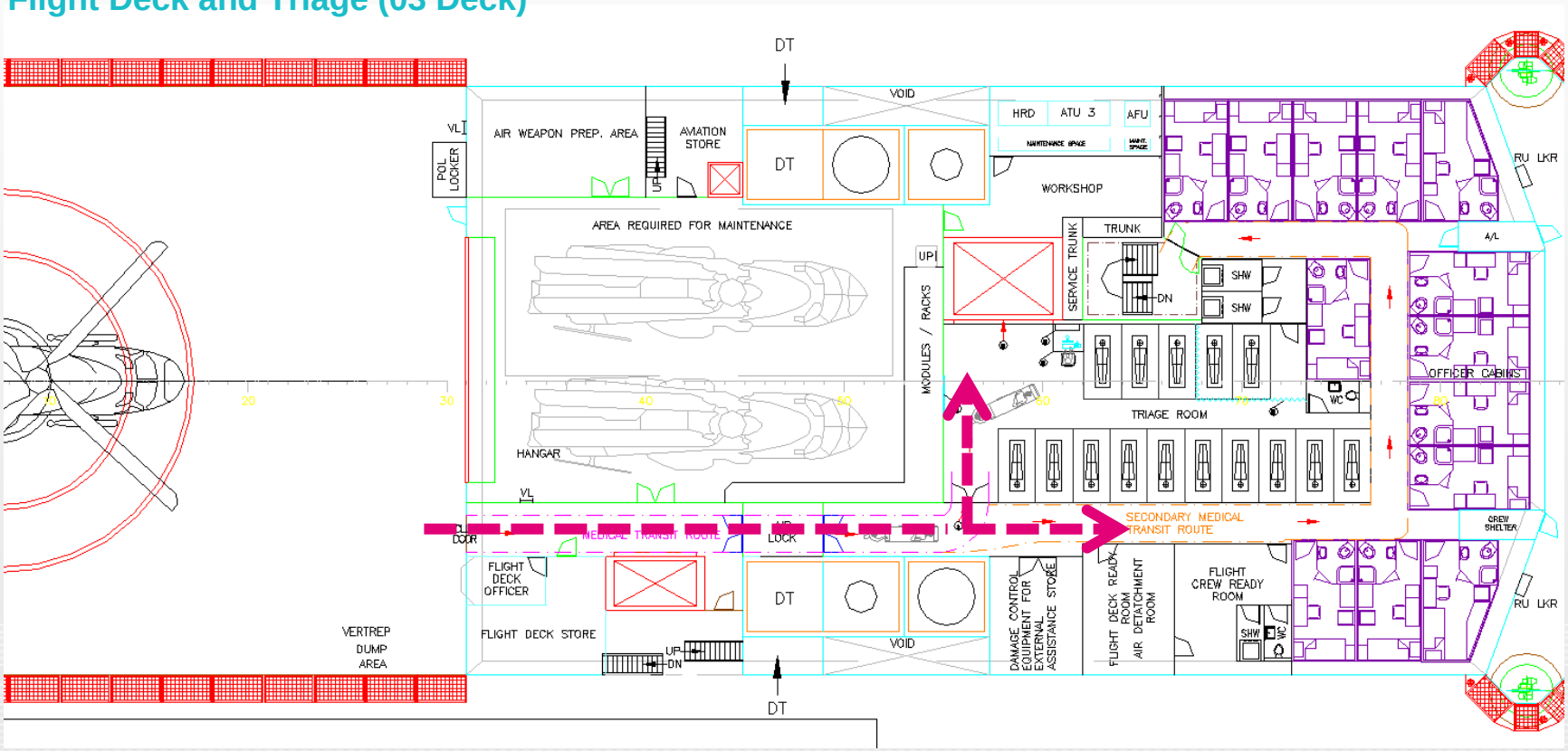


Key Information:

- Receipt and delivery of a wide range of fluids.
- 25 tonne deck crane with large operating radius allows solid replenishment to smaller vessels alongside.

Hospital Arrangement

Flight Deck and Triage (03 Deck)



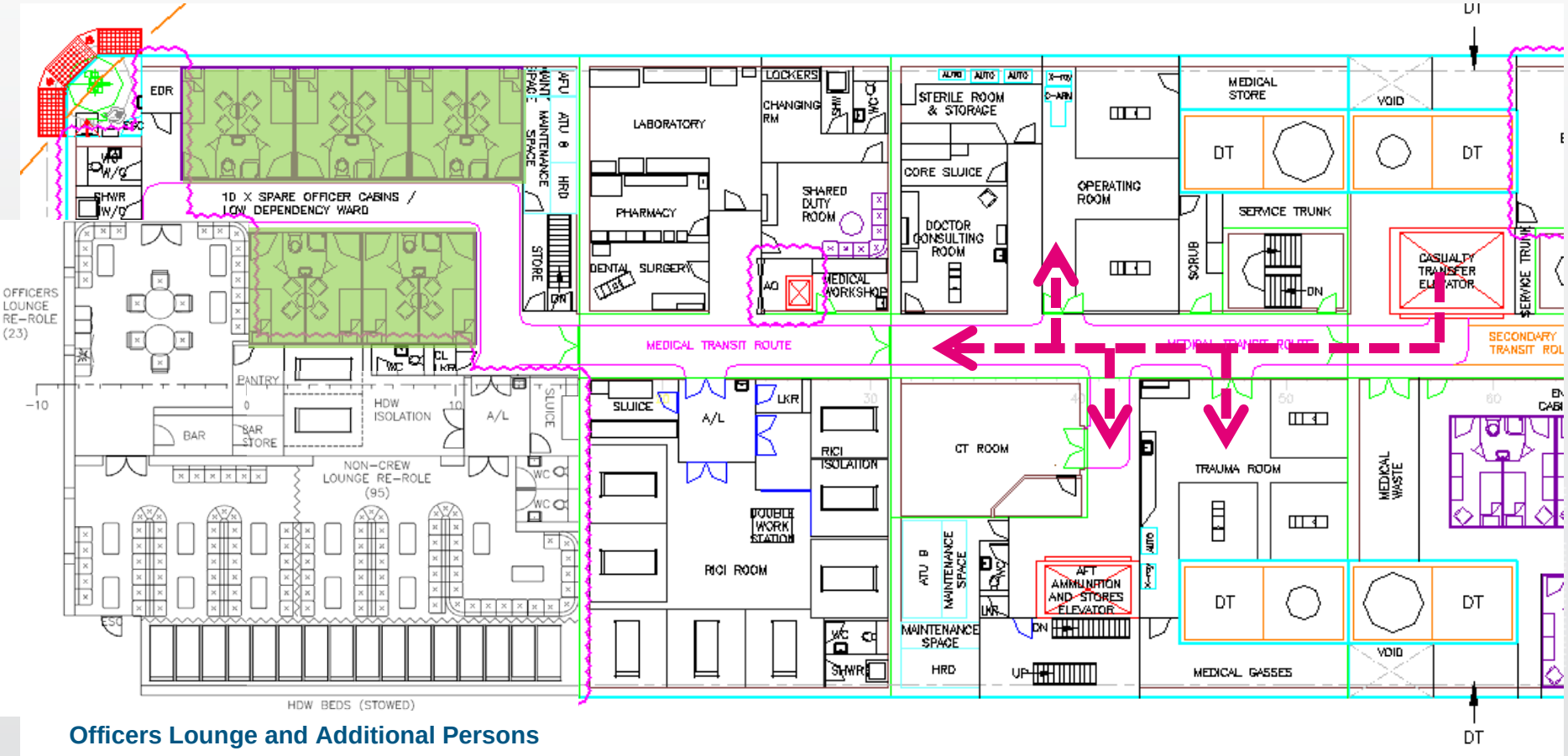
Key Information:

- Casualties embarked via flight deck.
- Triage adjacent to flight deck with dedicated casualty elevator down to the hospital.

Hospital Arrangement

Hospital Core and Ward Areas (02 Deck)

Reconfigurable Areas

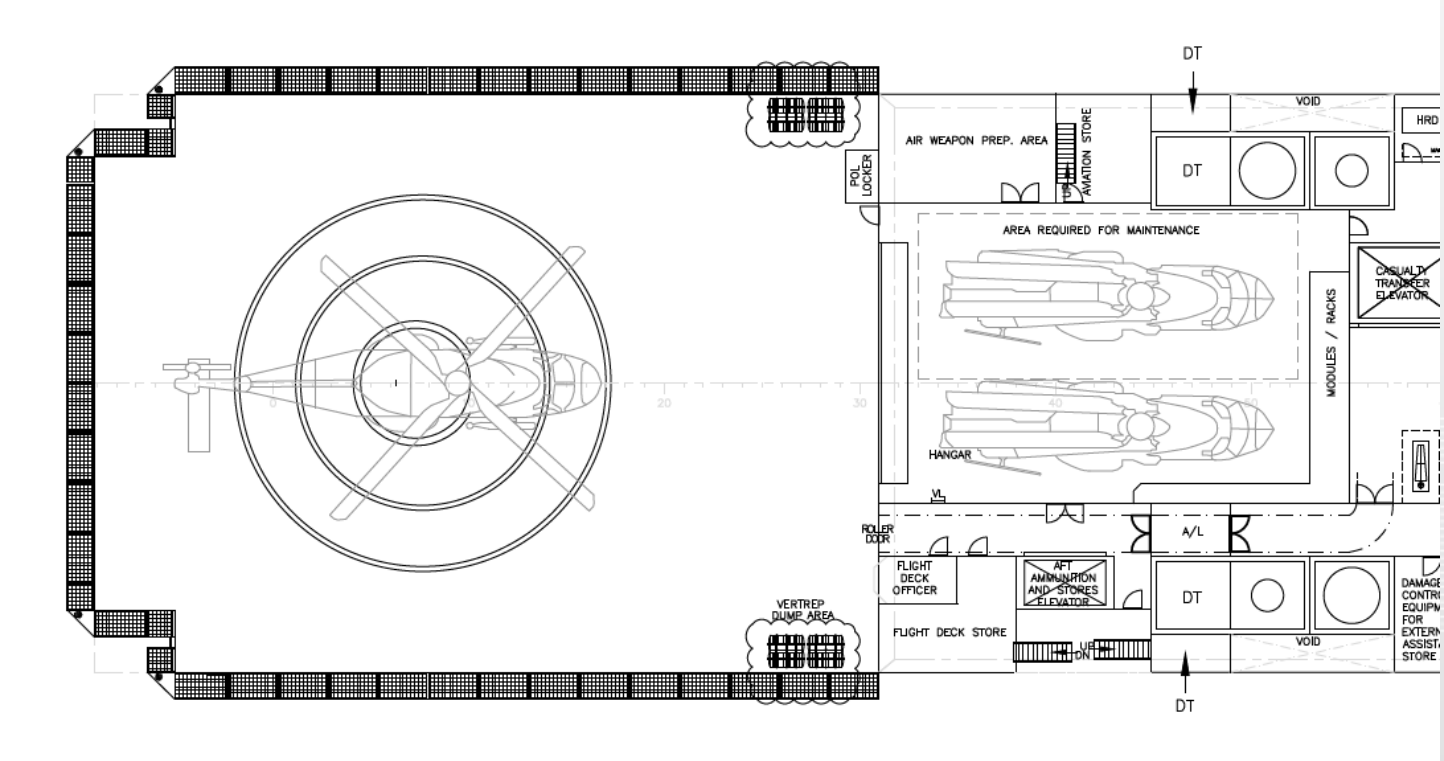


Officers Lounge and Additional Persons Lounge (before re-role)

Flight Deck & Hangar Arrangement

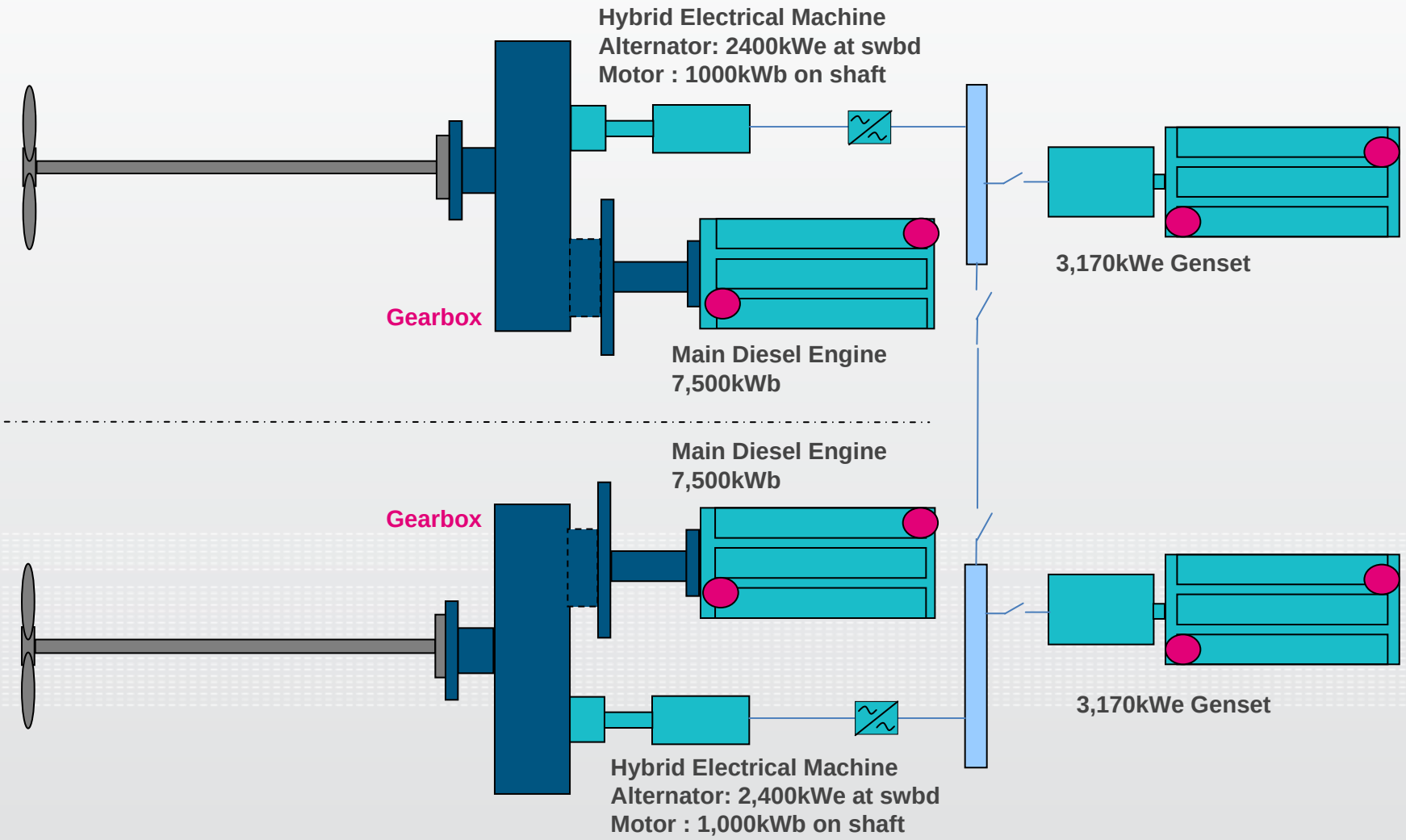
Key Information:

- Large flight deck to accommodate full range of specified aircraft.
- Hangar for level 2 maintenance of NH90 or stowage of two NH90.



Hybrid Power & Propulsion Solution

Combined Diesel Electric or Diesel (CODLOD)



Integrated Weapon System

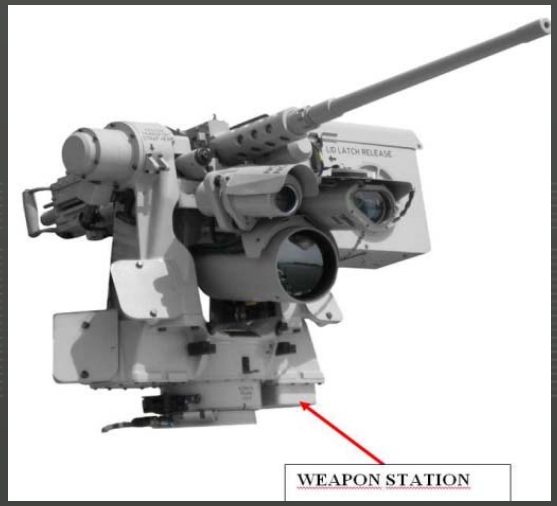
Key Information:

Command & Control Systems
- ECDIS / AIS

Sensors
- Radars X/S Band and IFF
- Helo Approach Radar
- Optical Bearing Device (OBD)
- Infra Red Camera

Integrated Communications System (ICS)
- External Communications
- - Strategic HF & MILSAT
- - Tactical V/UHF
- - Civil GMDSS
- - Security
- Internal Communications
- Information Systems

Weapons & Countermeasures
- CIWS 4 x Sea Protector (Future Installation)



LCC

- Fuel kostnad opp ca 20% pga fartøyets størrelse
- Bemanning ned 15-25% etter revidert bemanningsstudie
  - Konseptet vurderes å kunne driftes innenfor bemanningsstudiens rammer
- Stor grad av COTS gir slakk mht vedlikeholdskostnader
- Konklusjon: LCC godt innenfor «budsjett-estimat»

Vedlikehold og forsyning

- Klasses for å bedre driftsikkerheten
- Følger Sjøforsvarets standard for vedlikeholdsnivåer
- Fokus på vedlikeholdsvennlighet
- Tilstandsbasert vedlikehold
- Bruk av Cots (hyllevare)
- Reservedelslager ombord
- Bortsetting av drift

P2513 – Driftskonsept

- Vedlikeholdsplan/ reservedeler
  - Et Integrert vedlikeholdstyringssystem blir levert for fartøyet. Dette blir levert tilpasset Sjøforsvarets driftsløsning
  - Reservedeler blir levert med et omfang tilpasset de 2 første års forbruk
  - Det er i tillegg avsatt midler til ytterligere reservedels-anskaffelser
- Initiell opplæring/kurs for besetning og FLO personell
  - Opplæringspakker (kurs) er kontraktsfestet