

Update on New Dr. Fridtjof Nansen, and New 6000m ROV Ægir 6000

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IRSO 2015, La Jolla

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INSTITUTE OF MARINE RESEARCH
HAVFORSKNINGSINSTITUTTET

R/V Dr. Fridtjof Nansen (1-3)



1861-1930



Dr. Fridtjof Nansen
(2016 – 2050?)

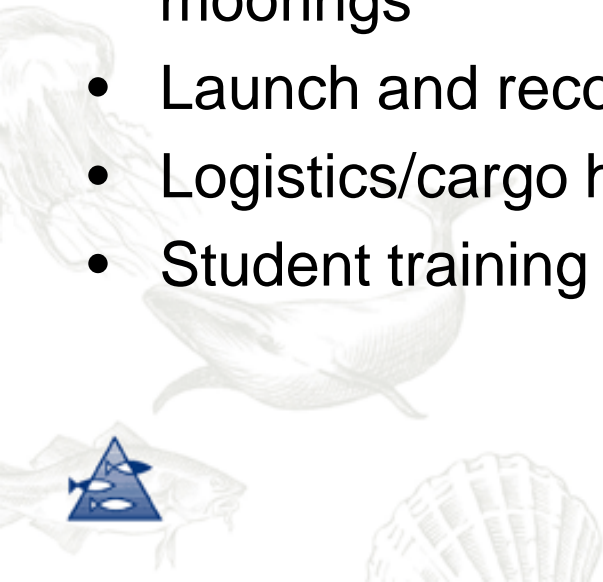
Dr. Fridtjof Nansen
(1974 – 1993)

Dr. Fridtjof Nansen
(1993 – 2016)



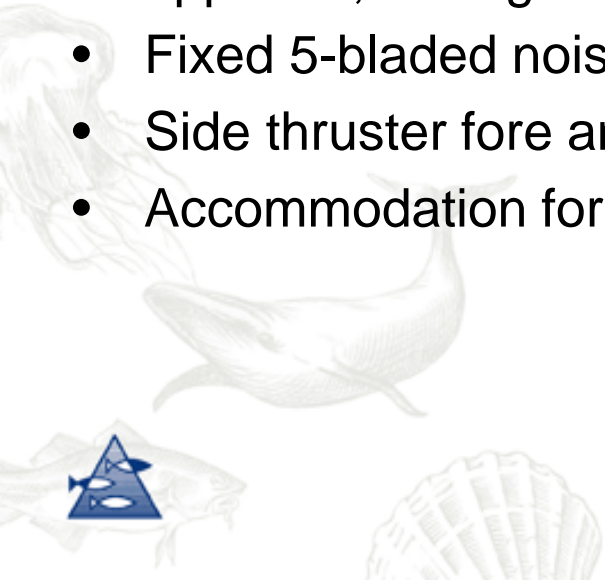
Vessel functions

- Oceanography
- Hydrography
- Marine Biology, - Geology, - Geophysics, - Chemistry, - Physics
- Demersal and Pelagic Trawling
- Bottom Coring and Grabbing
- ROV and AUV operations
- Launch and recovery of buoys, landers, observatories and moorings
- Launch and recovery of different kinds of towed vehicles
- Logistics/cargo handling operations
- Student training



Technical details

- DNV + 1A1, E0, Ice-C, SPS, DYNPOS-AUT, NAUT-AW, COMF-C(2)V(2), BWM-T, TMON, Recyclable
- Length over all (LOA): 74.10m
- Length between p.p. 66.10m
- Breadth moulded 17.40m
- Depth Main deck 8.60m
- Design draft 5.40m
- Main propulsion: Diesel/electric (AC), (3 gensets and 2 AC motors) approx 4,5MW genset effect and approx 3MW thruster effect.
- Fixed 5-bladed noise reduced propeller.
- Side thruster fore and aft, azimuth thruster forward.
- Accommodation for 45 persons in 32 cabins.



Under construction at Astilleros Gondan in Castropol, Asturias, Spain

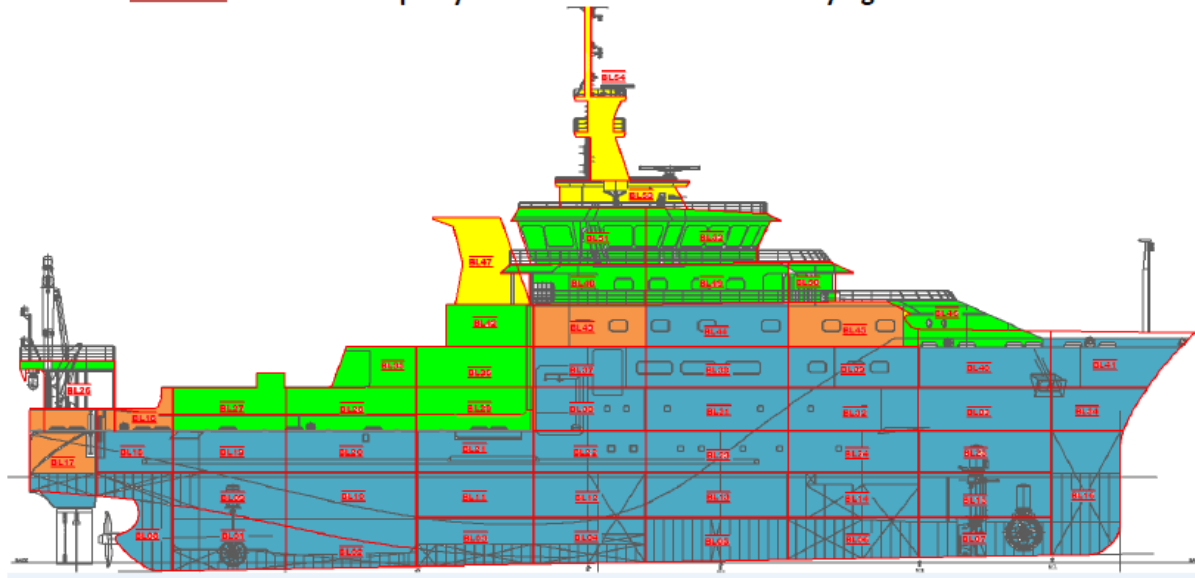
Dr. Fridtjof Nansen Replacement – Block construction

AG-460 – Hull build progress – Update by 30th Sept 2015

- Steel cutting
- Under construction
- Blocks ready to place on slipway
- Blocks on slipway

First steel cut: 13.01.2015

Keel Laying: 23.04.15



PLANNED BUILDING SEQUENCE OF BLOCKS– ref. Master plan Rev. 03

1	2	3	4	5	6	7	8	9	10
06 – 100%	05 – 100%	07 – 100%	14 – 100%	15 – 100%	04 – 100%	13 – 100%	03 – 100%	16 – 100%	12 – 100%
11	12	13	14	15	16	17	18	19	20
25 - 100%	02 – 100%	11 – 100%	01 – 100%	10 – 100%	09 – 100%	24 - 100%	08 - 100%	23 - 100%	22 - 100%
21	22	23	24	25	26	27	28	29	30
21 – 100%	20 – 100%	19 – 100%	18 – 100%	32 – 100%	17 – 80%	31 – 100%	33 – 100%	30 – 80%	34 – 100%
31	32	33	34	35	36	37	38	39	40
39 – 100%	38 – 100%	40 – 100%	37 – 100%	41 – 100%	29 – 70%	28 – 60%	36 – 70%	27 – 30%	26 – 30%
41	42	43	44	45	46	47	48	49	50
35 – 30%	44 – 100%	43 – 80%	42 – 30%	45 – 80%	46 – 80%	47 – 100%	49 75%	48 - 70%	50 - 70%
51	52	53	54						
51- 25%	52 - 25%	53 - 100%	54 - 100%						

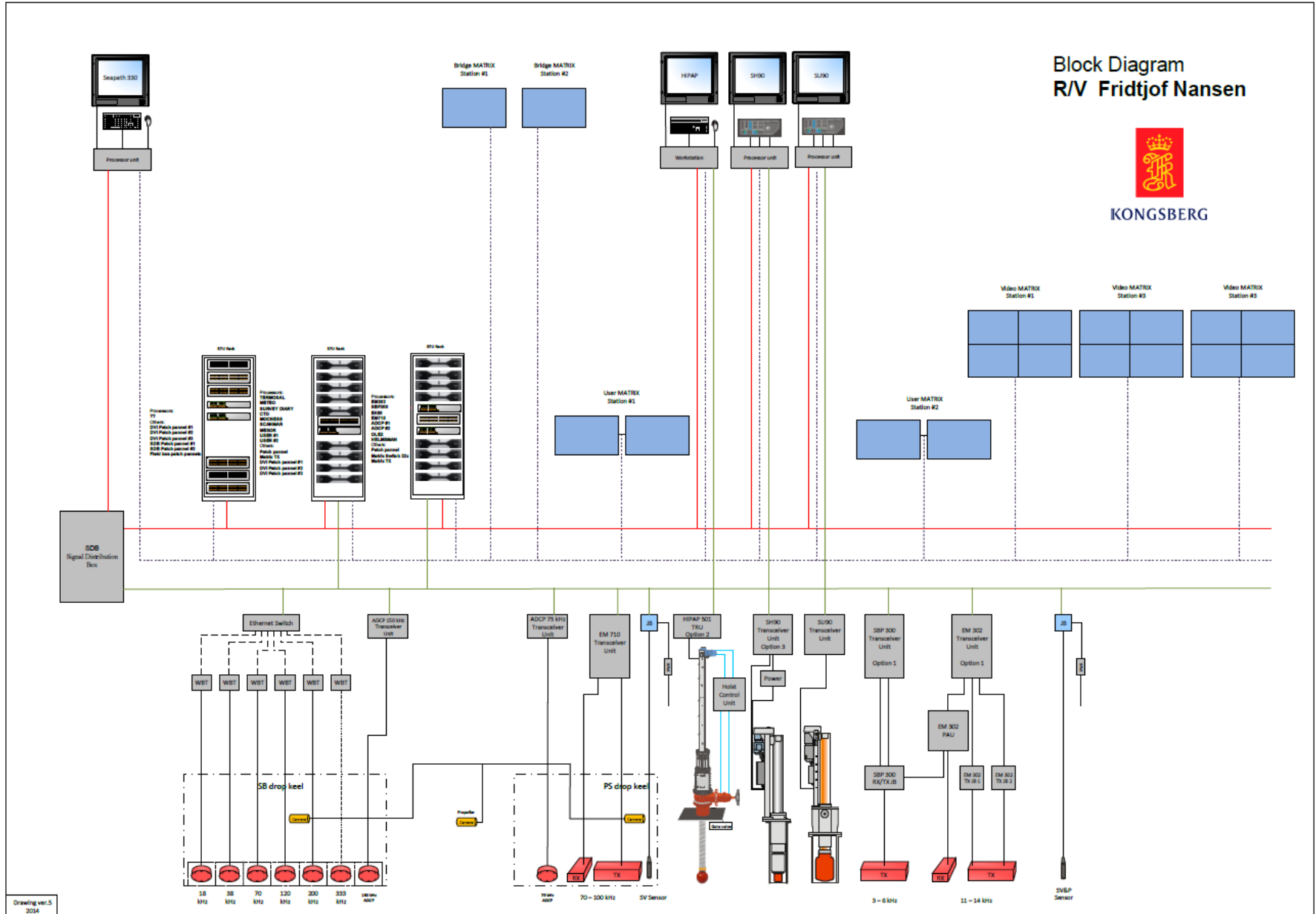
NOTE! Blocks are defined as 80% completed when ready to put on slipway - 100% when positioned on slipway.

Hydroacoustic system

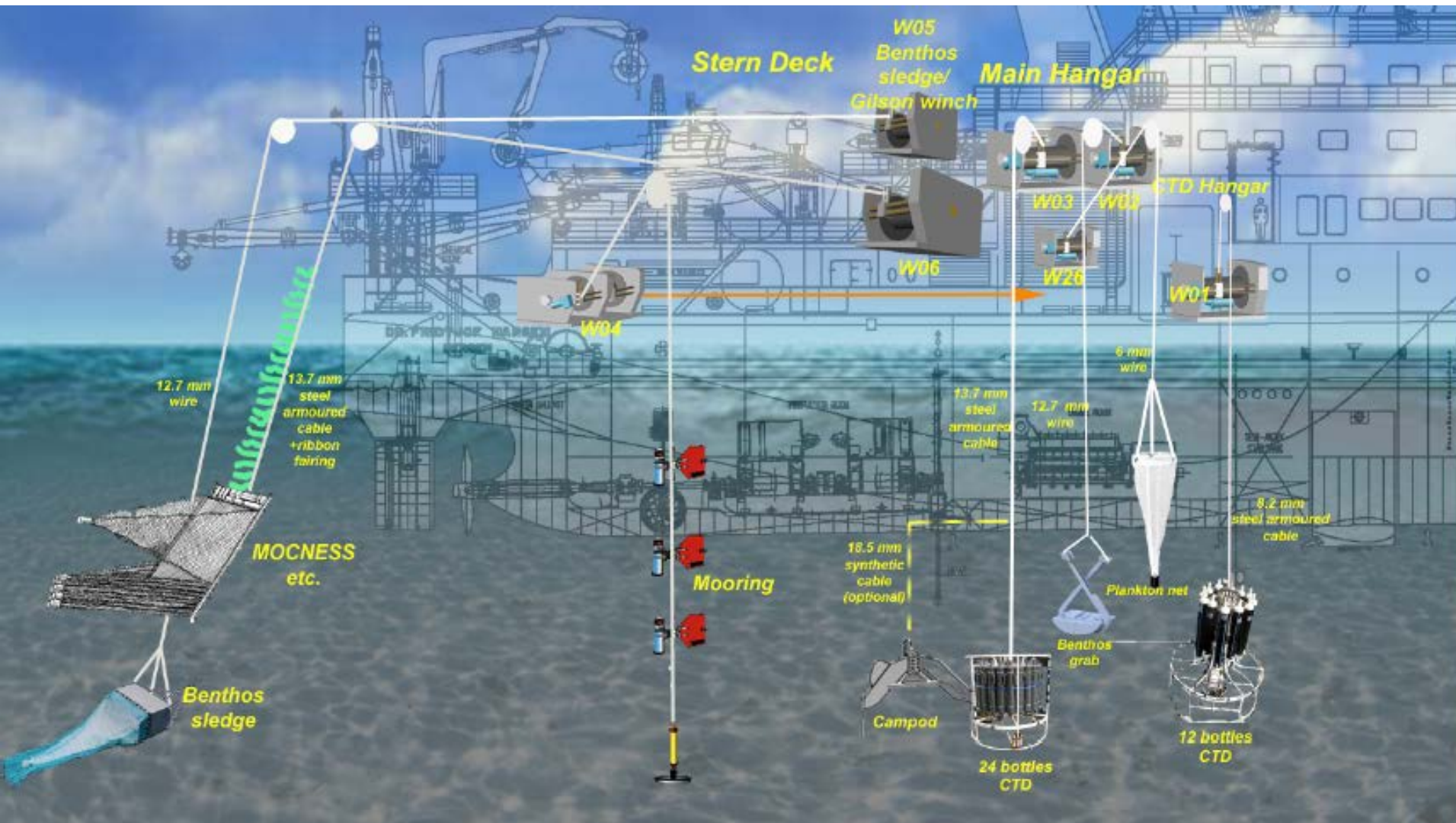
Block Diagram
R/V Fridtjof Nansen



KONGSBERG



Scientific winches



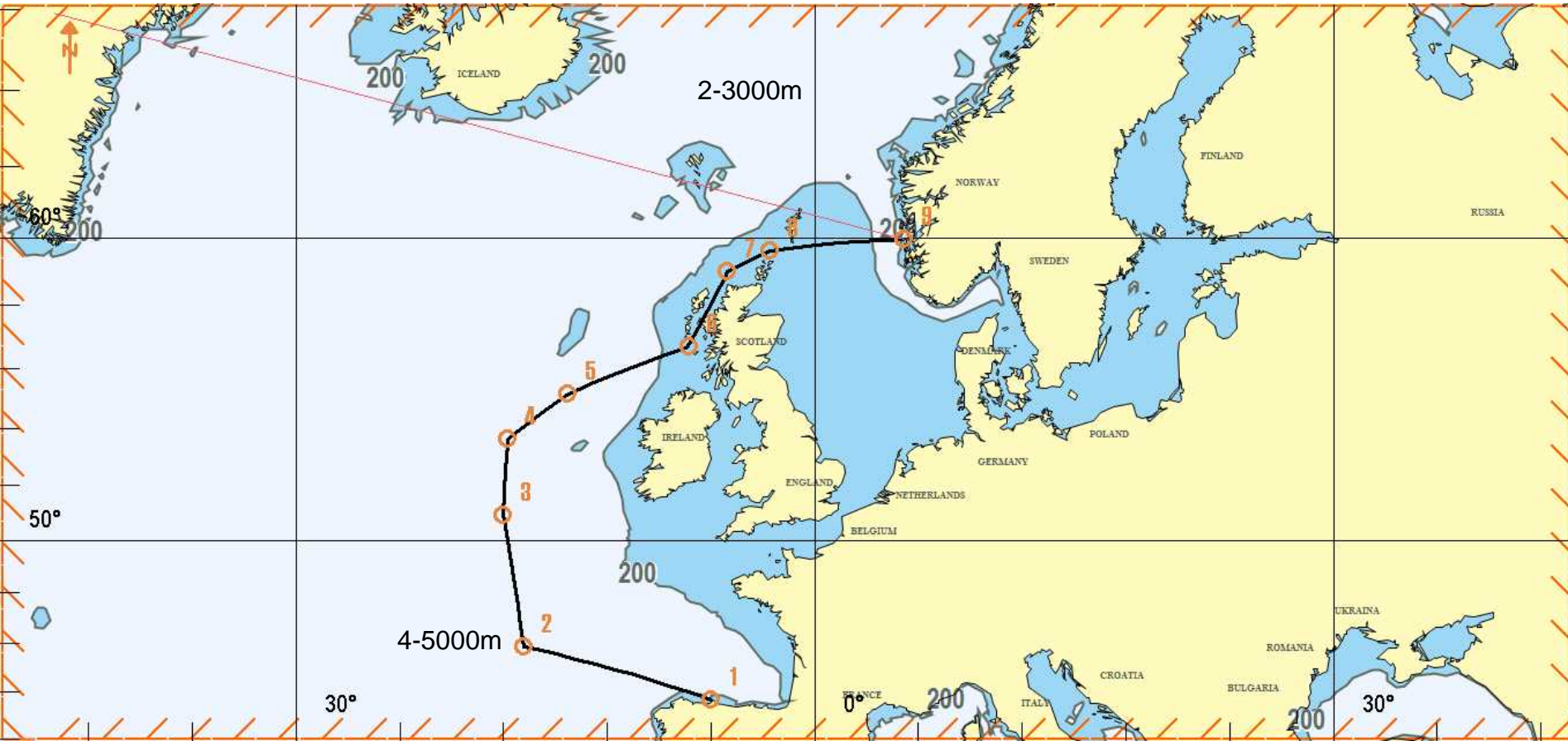
**36 blocks placed and assembled
on slipway by 30.09.15**



Revised progress plan

Activity	Planned	Actual/Revised plan
Start steel cutting	12 December 2014	12 January 2015
Start section building	22 January 2015	19 January 2015
"Keel laying"	23 March 2015	23 April 2015
Start piping	10 April 2015	05 June 2015
Start thruster and motor installations	4 May 2015	29 June 2015
Start outfitting	6 July 2015	02 September 2015
Start painting	27 July 2015	14 October 2015
Start electrical cabling	15 September 2015	16 September 2015
Launching	14 October 2015	25 November 2015
Start accomodation/interior	25 November 2015	7 October 2015
Start installation scientific equipment	27 July 2015	31 August 2015
Start dockside trials	21 April 2016	27 May 2016
Stability test	16 June 2016	06 July 2016
Start sea trials	27 June 2016	21 July 2016
Official trials	1 July 2016	?
URN tests	09 August 2016	?
Echosunder tests	11 August 2016	?
Delivery	22 August 2016	22 August 2016

Transit/deep water testing



1900 nm = 8 days sailing.

Included 4-6 days of testing = 12-14 days





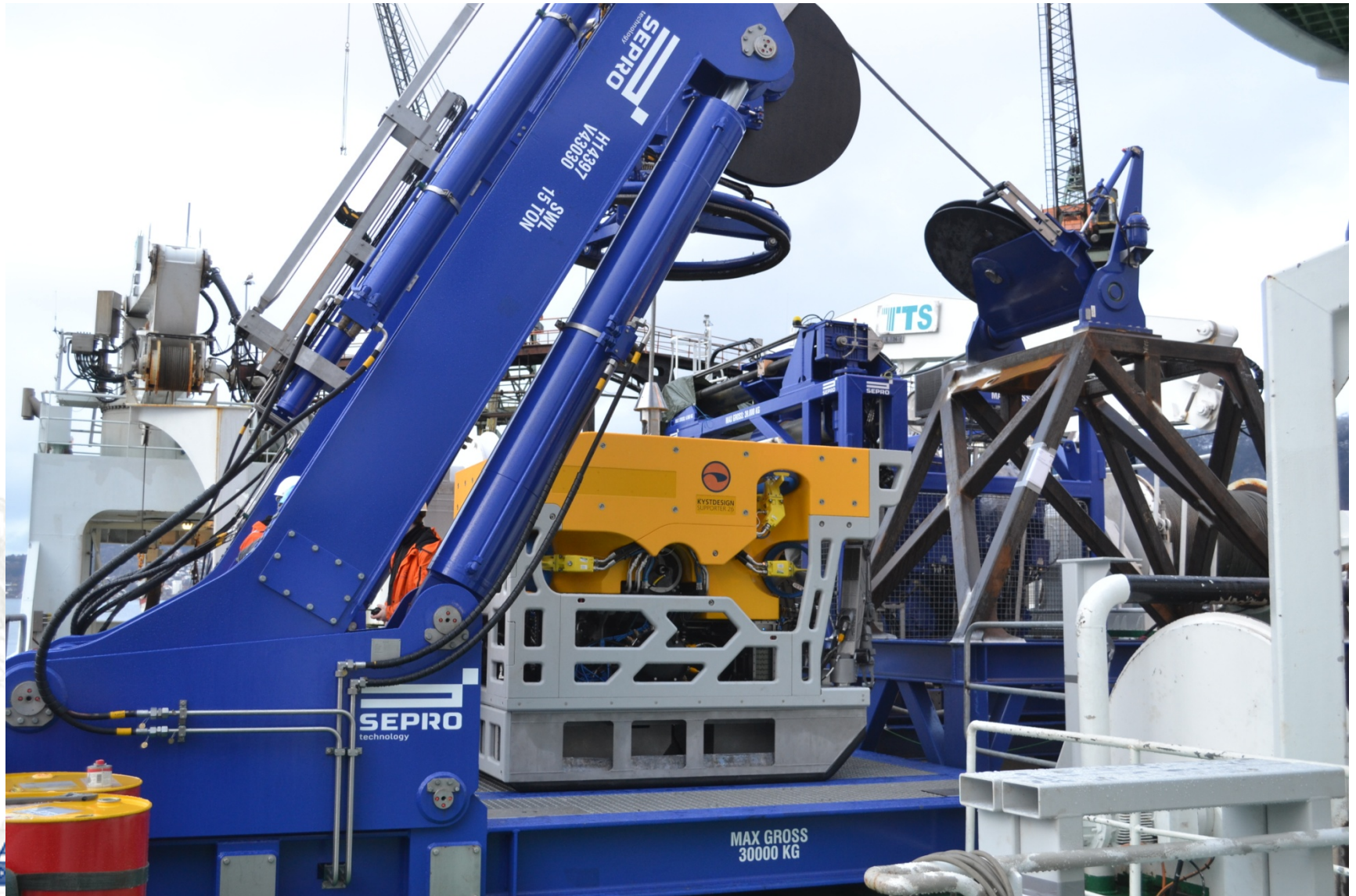
ROV "Ægir 6000"



First operational cruise in July 2015 on board "G.O. Sars"



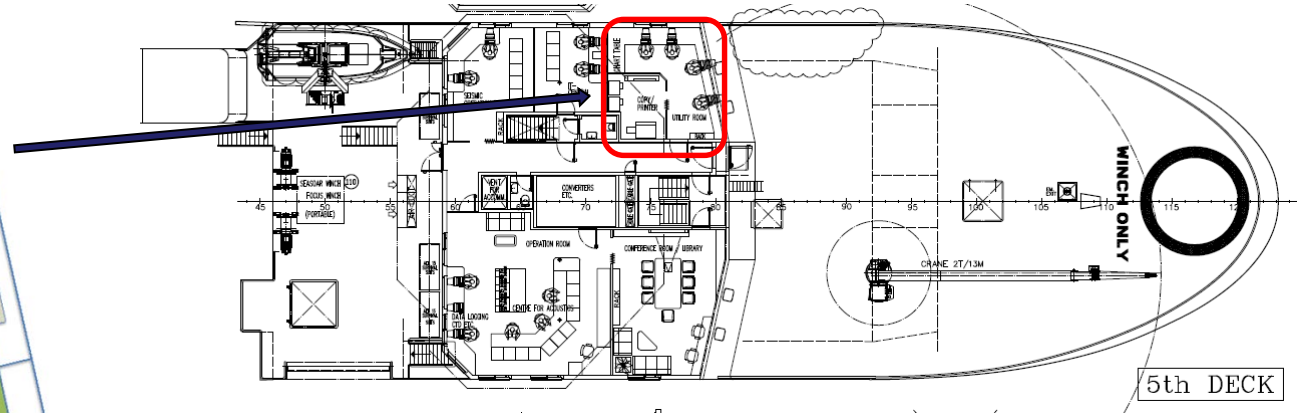
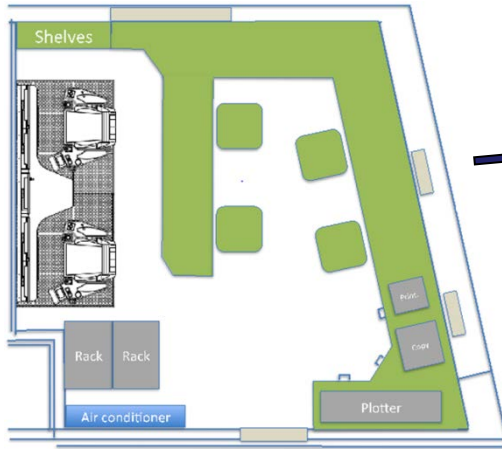
ROV installation G.O. Sars



ROV installation G.O. Sars



Opsroom on deck 5 - "G.O. Sars"





Questions?

