



OGS

Laura Bassi, report on the latest
Antarctic expedition

.... the new installations on board

Riccardo Codiglia

26th ERVO Annual Meeting



Just a step back....

2023 – the year of the record

SCIENZA

Rea
maLa nav
Progra

Nave Lau

Italian Reachi



staff @M_Fedriga
@staff_M_Fedriga · Follow

Mai nessuna nave prima d'ora c'era riuscita. Grande giornata per la Laura Bassi, la nave rompighiaccio dell'@OGS_IT, che nel corso della 38ª spedizione @ItaliAntartide - #PNRA, ha toccato la il punto più a sud mai raggiunto da una nave.



4:25 PM · Jan 31, 2023

[Read the full conversation on Twitter](#)

20



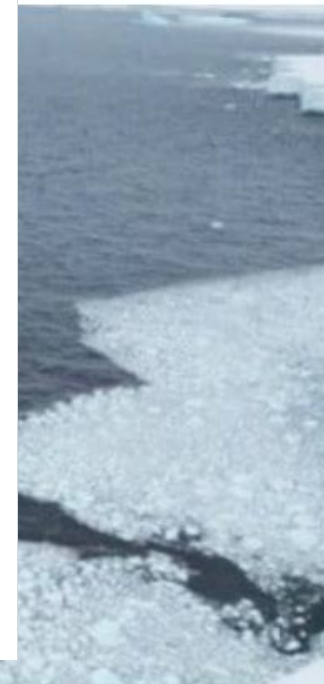
Reply



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Record South



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to be set



**78° 44.280' S,
Bay of Whales**

Laura Bassi traveled to the further point south in the Ross Sea in Antarctica (OGS photo)

PUBLISHED FEB 1, 2023 5:48 PM BY **THE MARITIME EXECUTIVE**



.... but still there was criticalities already identified 2 years before (and unfortunately some of these are still there!!!)

- The scientific activities needed several improvements



BALTIC ROOM for water sampling

A-FRAME for bottom sampling operation

- We still was not compliant with Polar Code to operate at -20 MDLT



New davit and lifeboats

New integrated bridge system

- Satellite data communications was disastrous



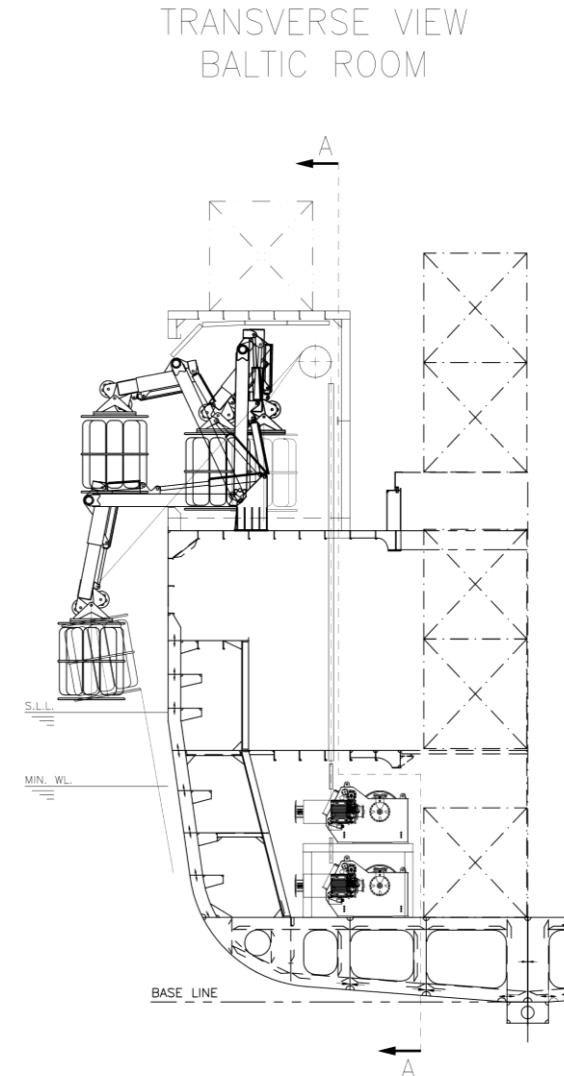
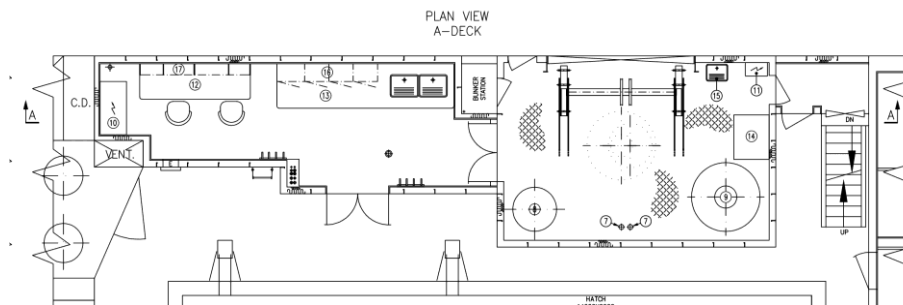
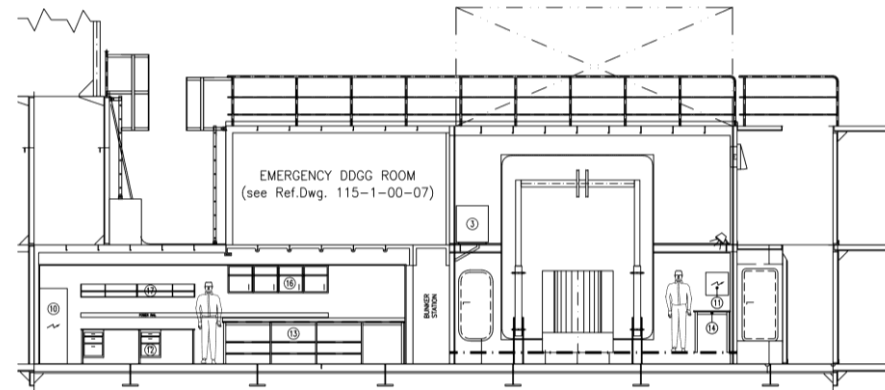
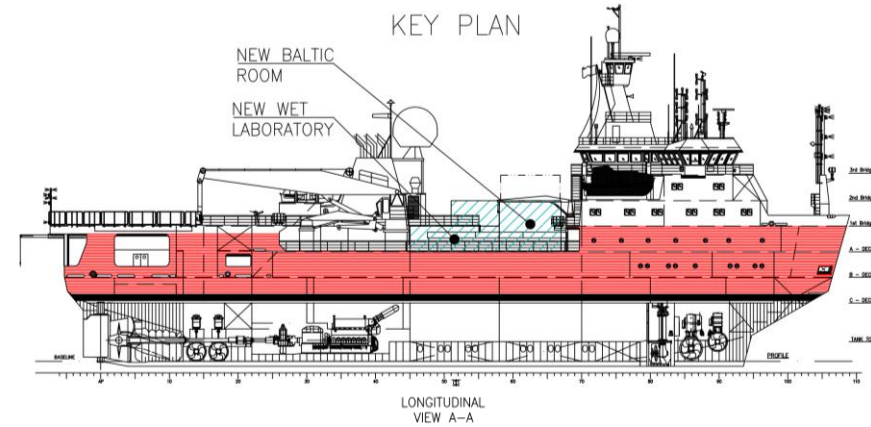
New technologies as LEO



The Baltic Room

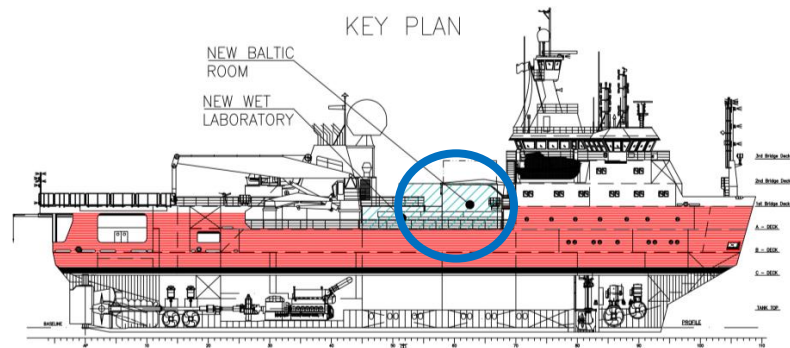
started in 2022...

- Goals:
 - Reduce motions
 - Increase distance from propellers
 - Straightforward deployment in air conditioned room
- Constraints:
 - Keep load capacity
 - Add a clean rosette





The Baltic Room



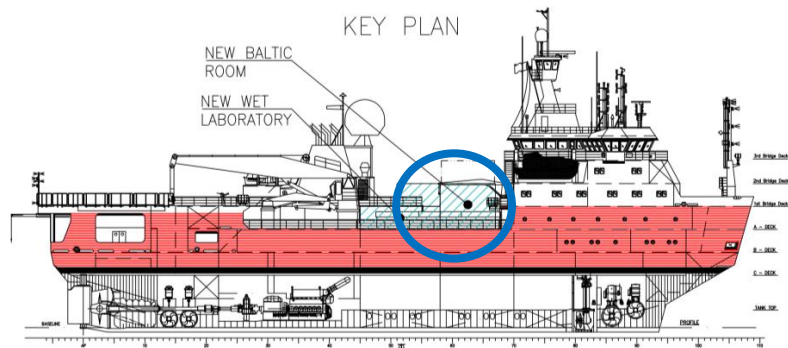
Phase I, started in 2022



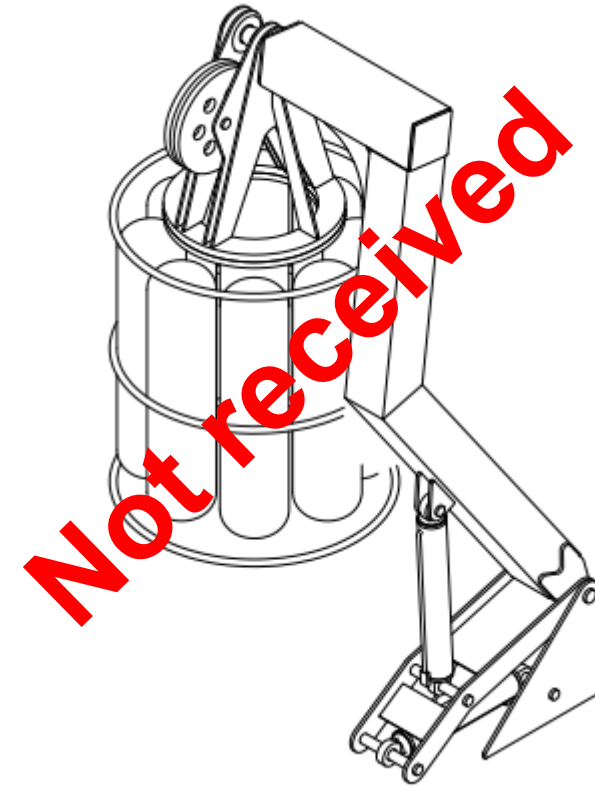
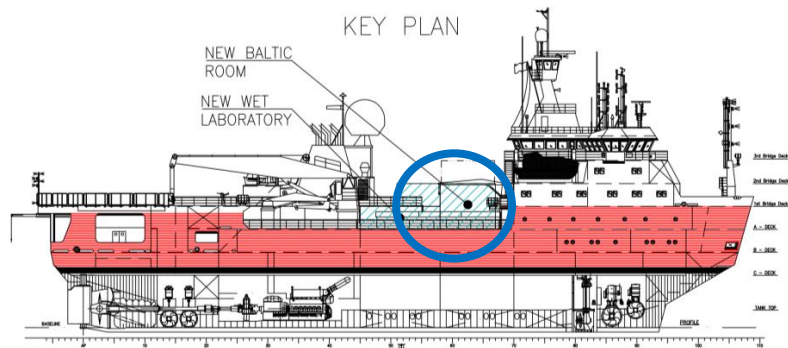


The Baltic Room

Phase II, 2023



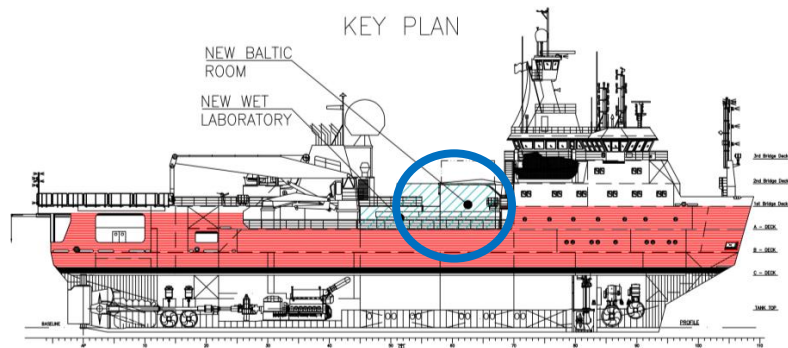
The Baltic Room



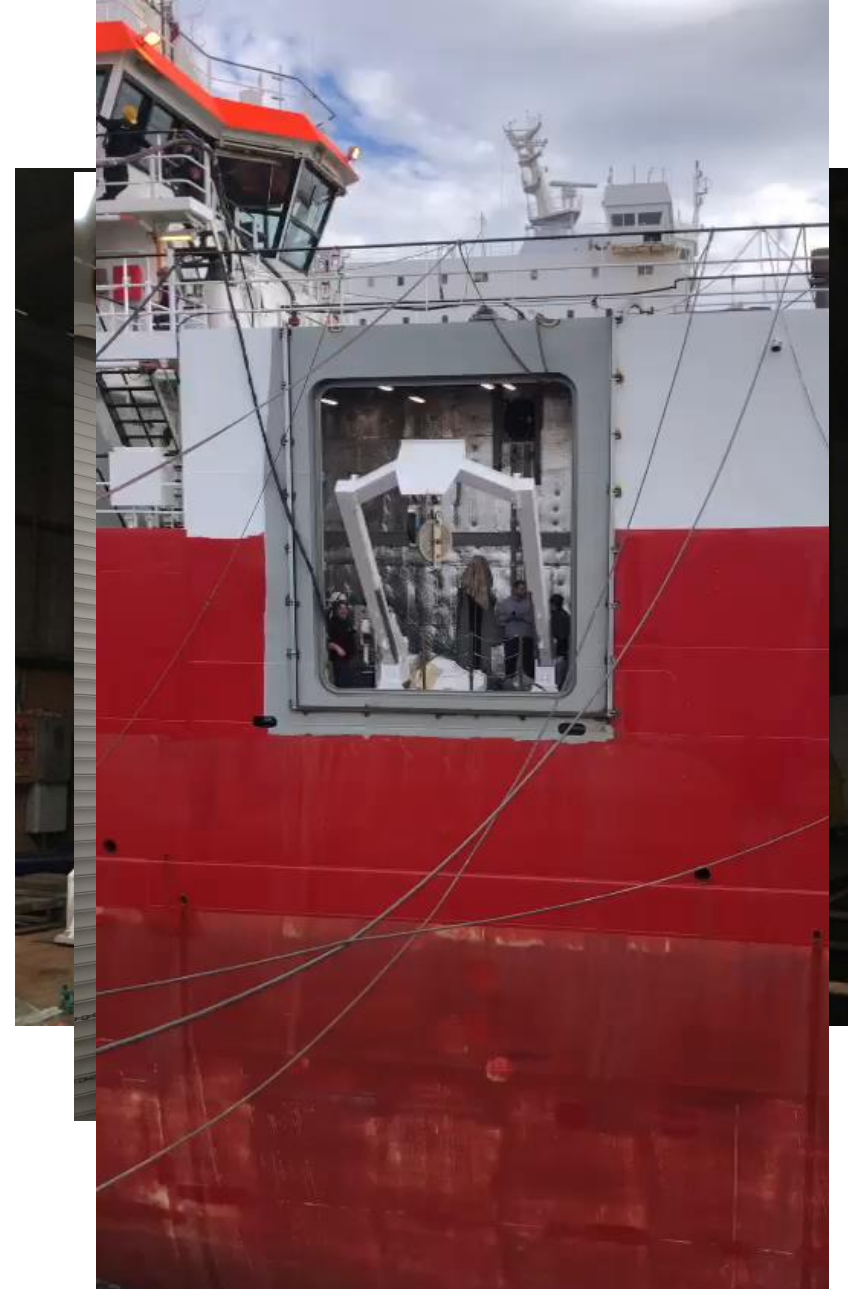
What was missing....



The Baltic Room

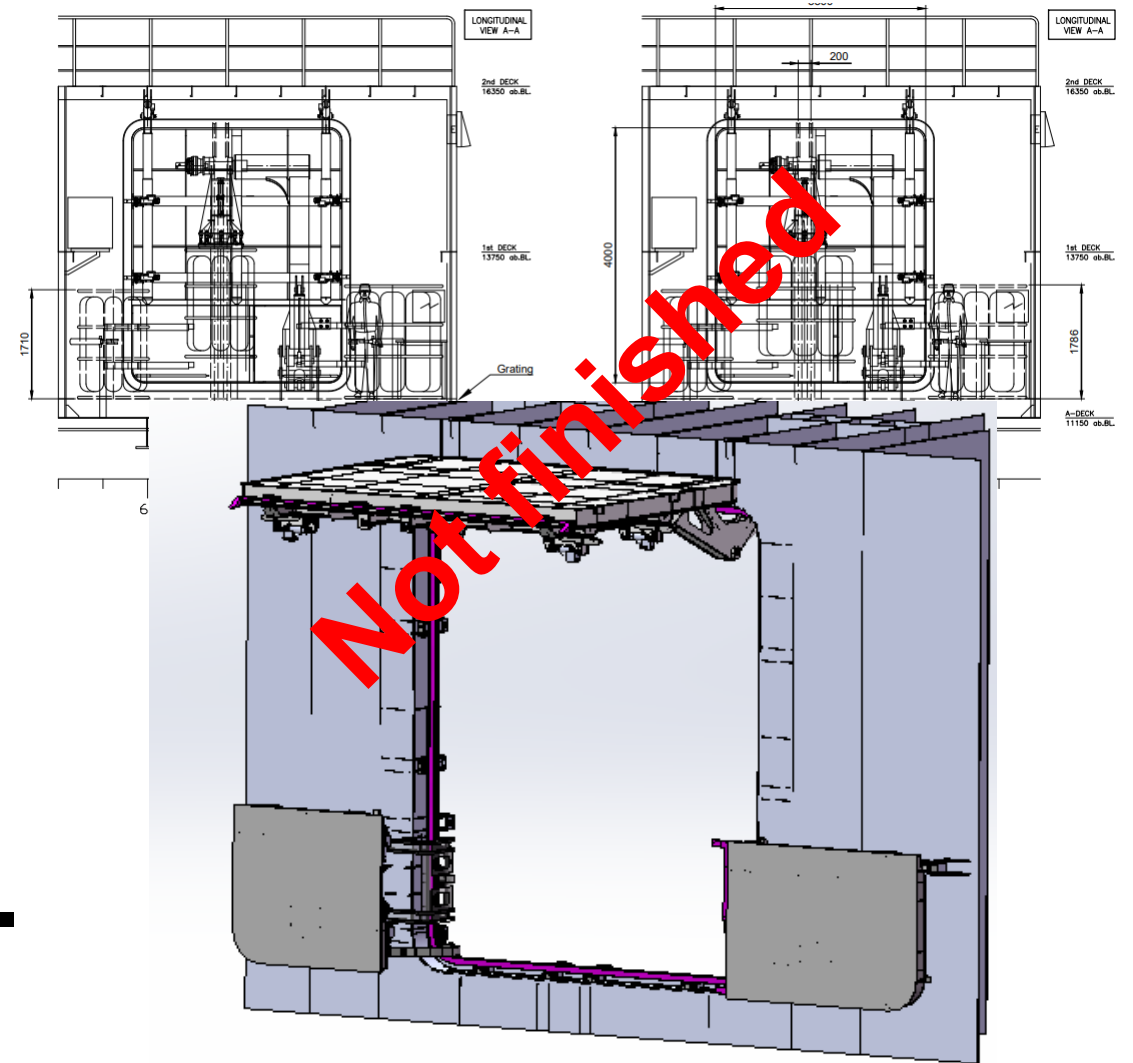
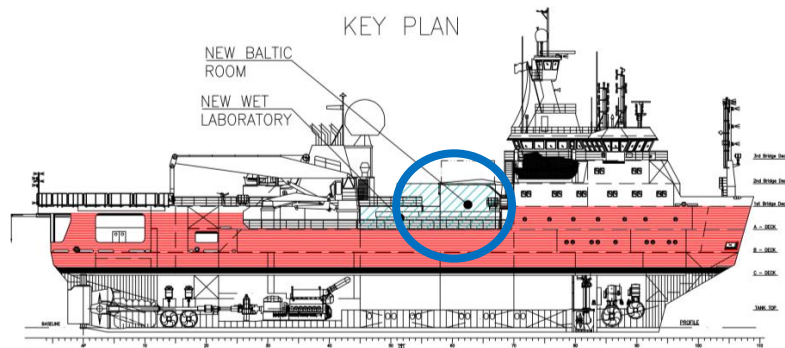


....and the backup plan





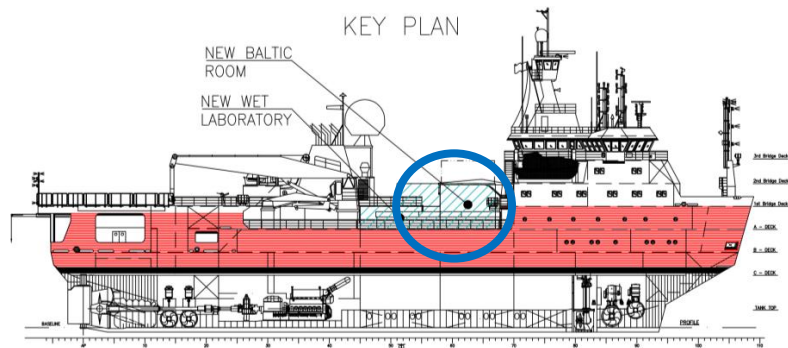
The Baltic Room



What was missing....



The Baltic Room

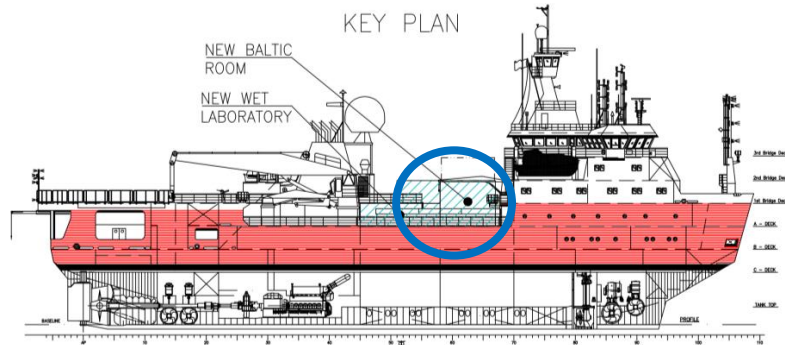


....and the backup plan





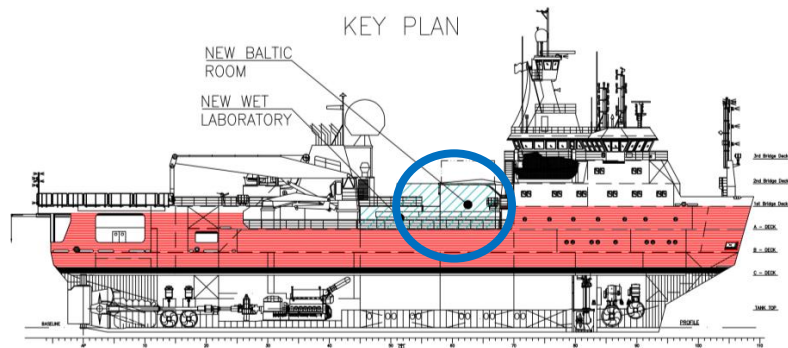
The Baltic Room



What was missing....



The Baltic Room

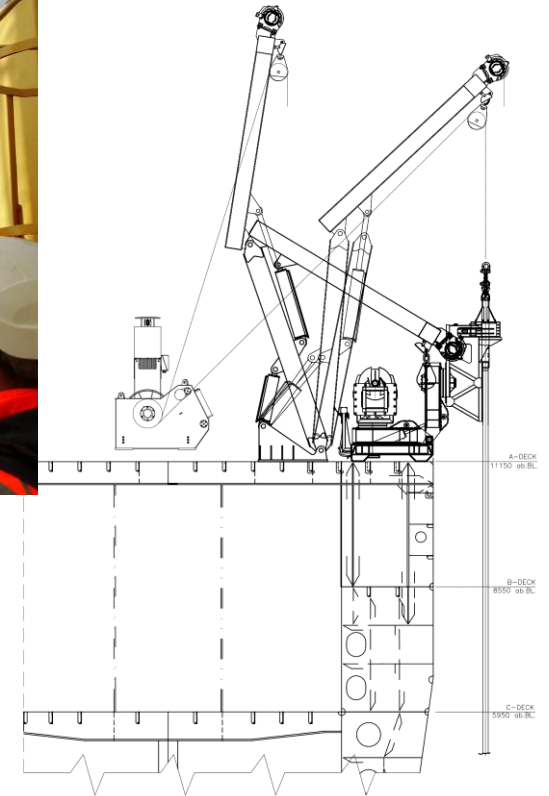
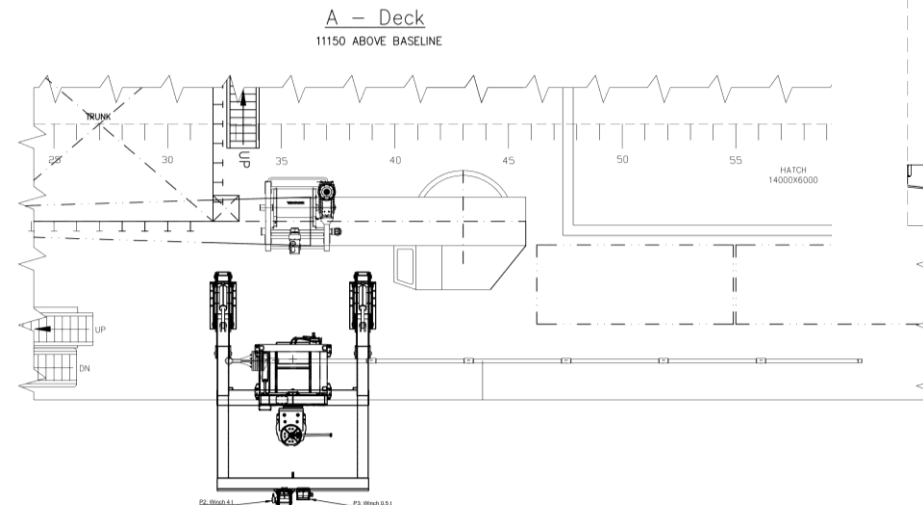


....and the backup plan

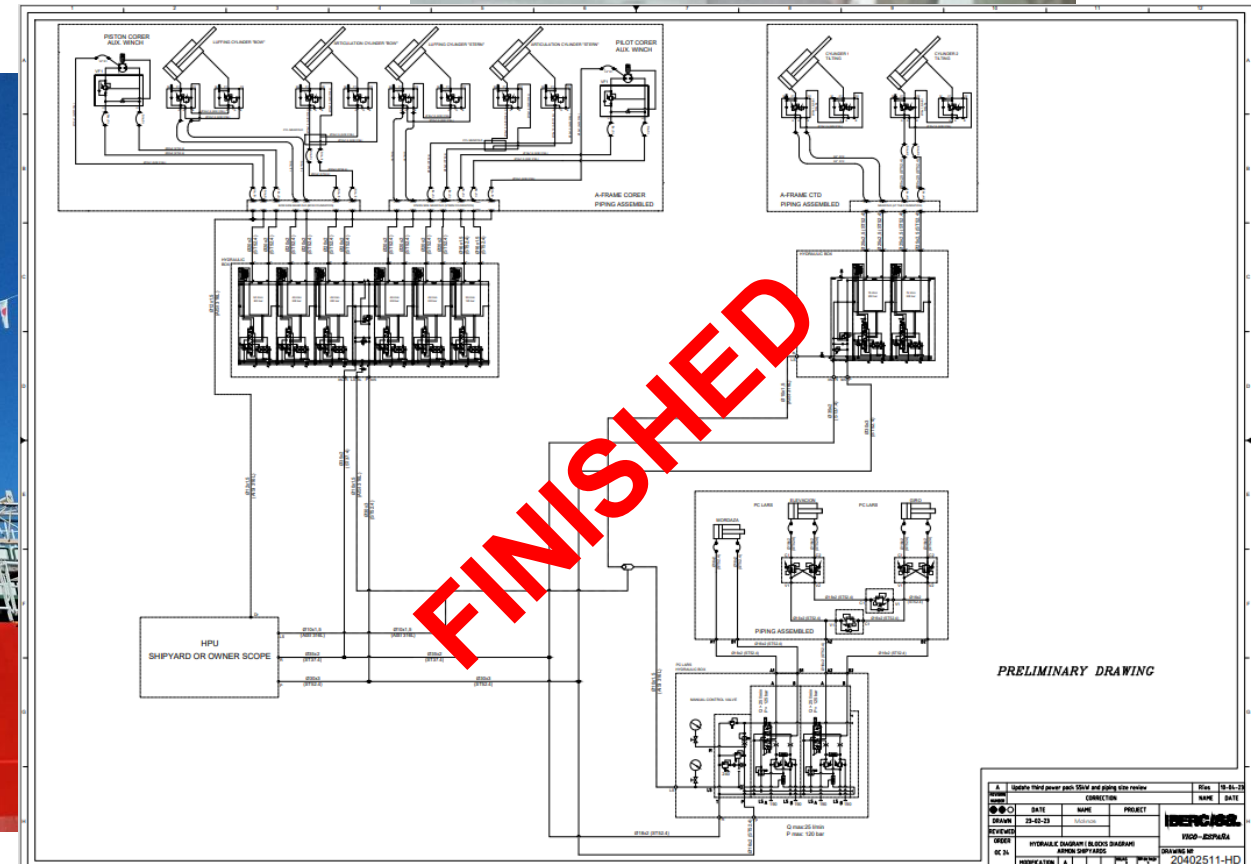


Coring and bottom sampling

- Goals:
 - Lower resting position
 - Improve deployment
- Constrains:
 - Try to keep the crane
 - Allow for deployment of box-corer and multi-corer

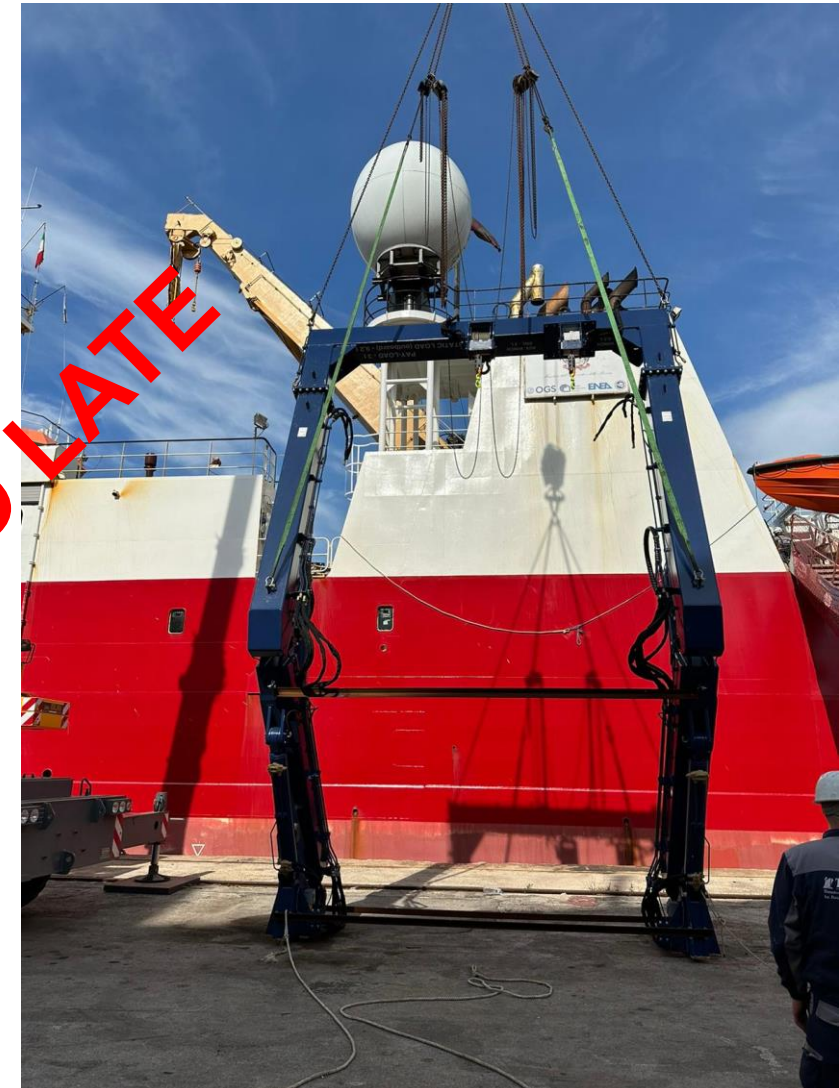


Coring and bottom sampling before the departure



Coring and bottom sampling

what was missing



Coring and bottom sampling

what was missing



....and no backup plan!

RESULTS of the expeditions...





.... but still there was criticalities already identified 2 years before (and unfortunately some of these are still there!!!)

- The scientific activities needed several improvements



BALTIC ROOM for water sampling

A-FRAME for bottom sampling operation

- We still was not compliant with Polar Code to operate at -20 MDLT



New davit and lifeboats

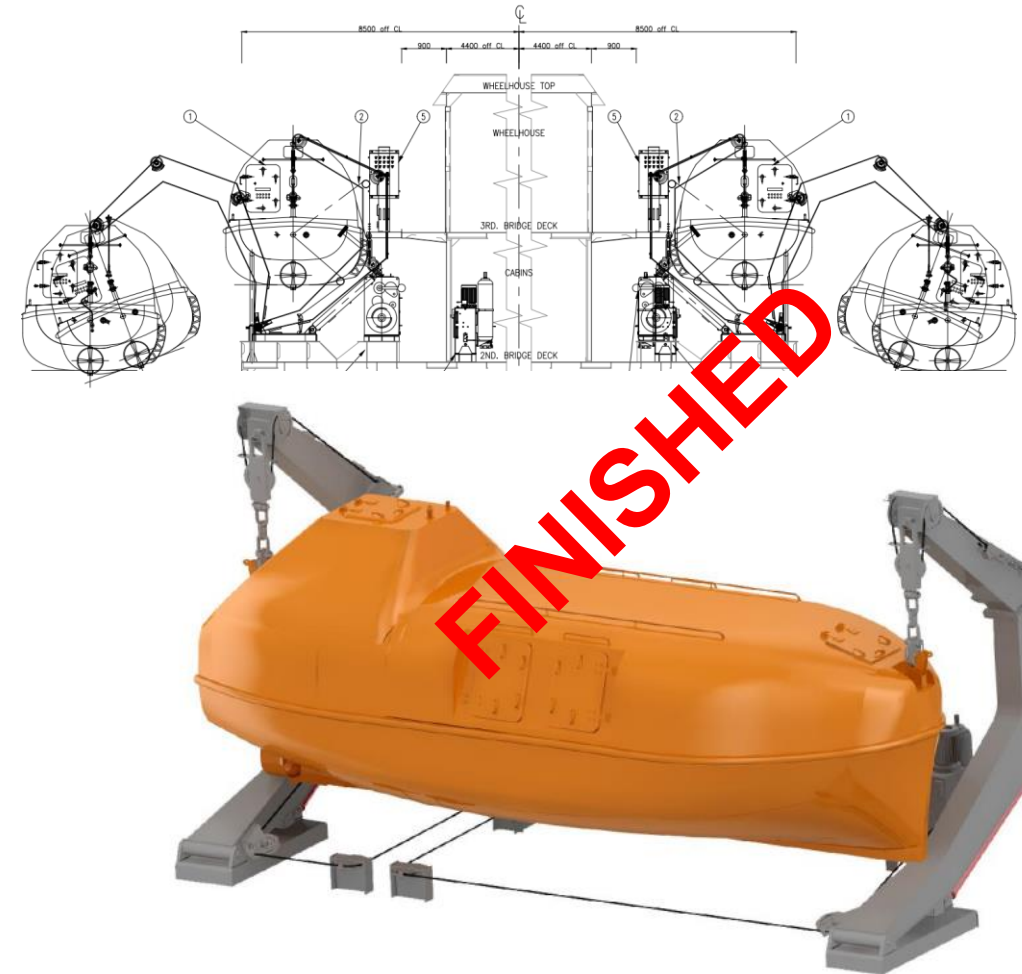
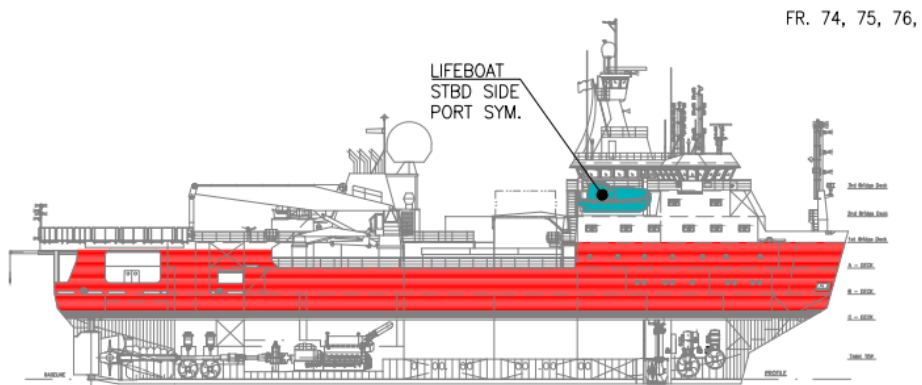
New integrated bridge system

- Satellite data communications was disastrous



New technologies as LEO

New lifeboat and davits installation



Before the departure



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New technologies as LEO

The VSAT Ku band twins antennas



Some number and result....

- ✓ 1 Hydrographic project of MM (Italian Navy)
- ✓ 5 Research projects funded by PNRA
 1. TENORE (physical and chemical oceanography)
 2. SIGNATURE (physical and chemical oceanography)
 3. MORSEA (permanent ocean observatories)
 4. ISOBATA (underway data acquisition)
 5. BOOST (morphobatimetry)
- ✓ 1 NZ reasearch project by NIWA (oceanography, marine biology, fischery)
- ✓ 1 reserach project OTAGO (geology, marine geophisics)



Some number and result....

Two legs

60 days non stop on sea

65 people onboard

More than 40% women

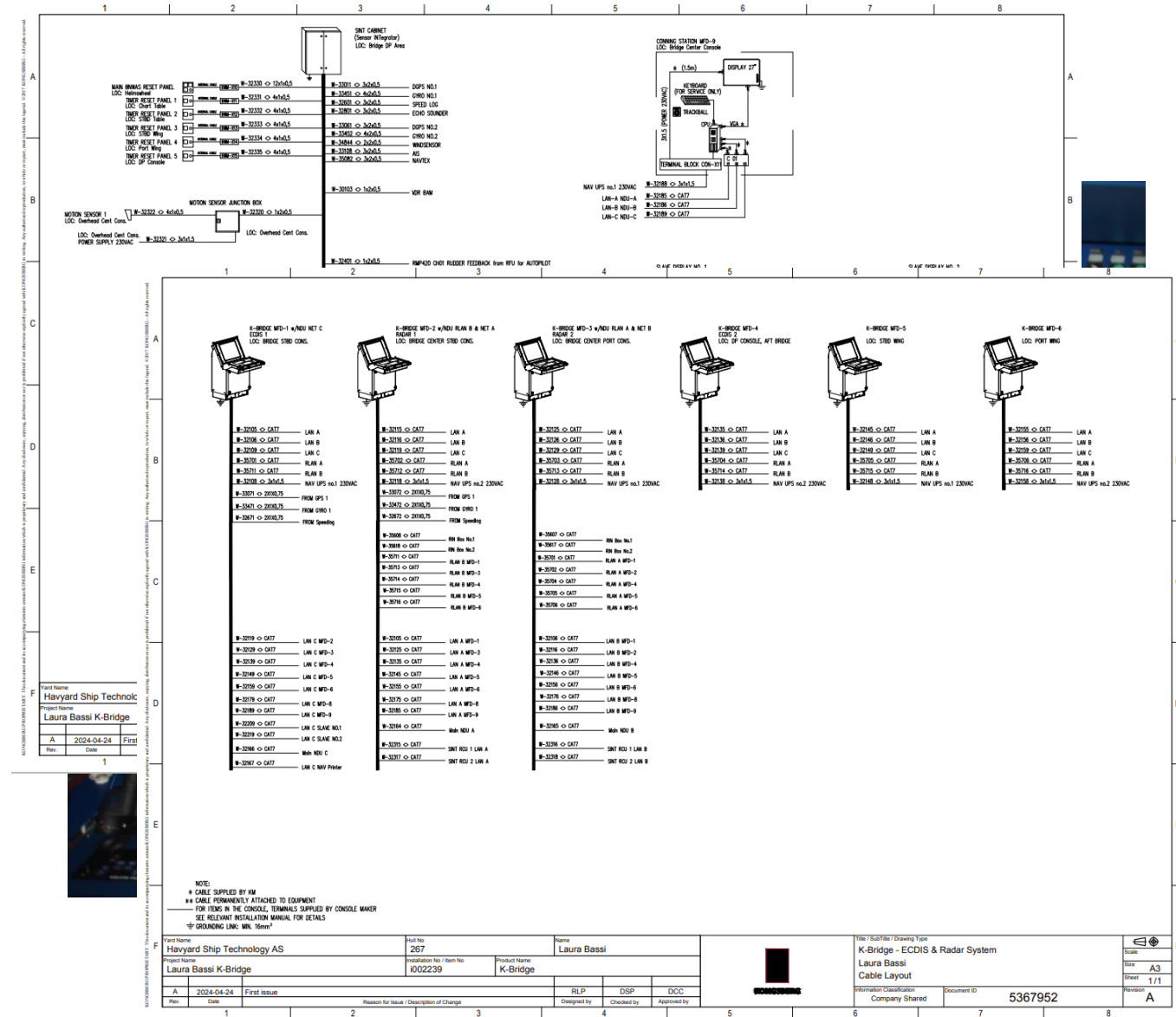




Next year.....

New Integrated bridge system by KONGSBERG

Update DP II system by KONGSBERG



Next year.....

A- frame and LARS for coring operations are ready for the commissioning



Next year.....

CTD LARS for water sampling operations is ready for the commissioning

HVAC To be tested!!!!



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- Thank you!

