

# News from IMR on vessels and equipment

The background image shows three large offshore supply vessels, likely used for oil and gas operations, sailing in a harbor. The vessels are white with dark hulls and have complex superstructures with multiple decks and antennas. The harbor is surrounded by a city with colorful buildings and a large mountain in the background under a cloudy sky.

OFEG-TECH meeting Brest October 6<sup>th</sup> 2022

Dag Hellesnes



# IMR's research vessel fleet



Kronprins Haakon

NP



Dr. Fridtjof Nansen

NORAD



G.O. Sars



Johan Hjort



Kristine Bonnevie



Hydrograf

Kartverket



G M Dannevig



Hans Brattström

UiB



Prinsesse Ingrid Alexandra



# «Prinsesse Ingrid Alexandra»

New Coastal Research Vessel



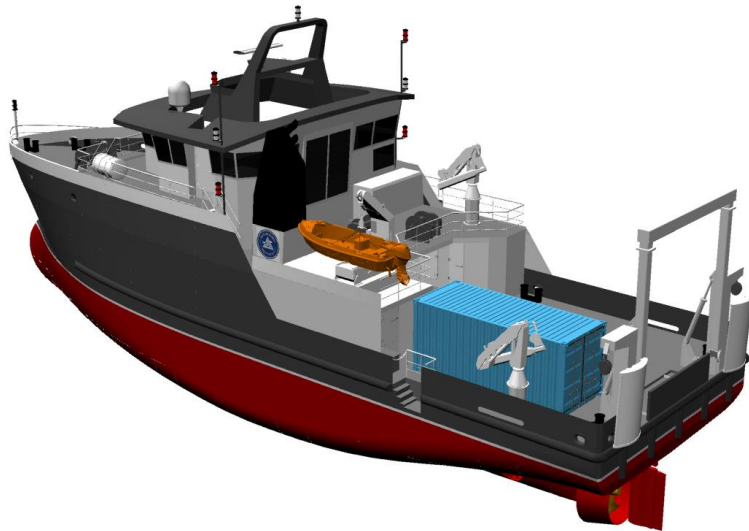


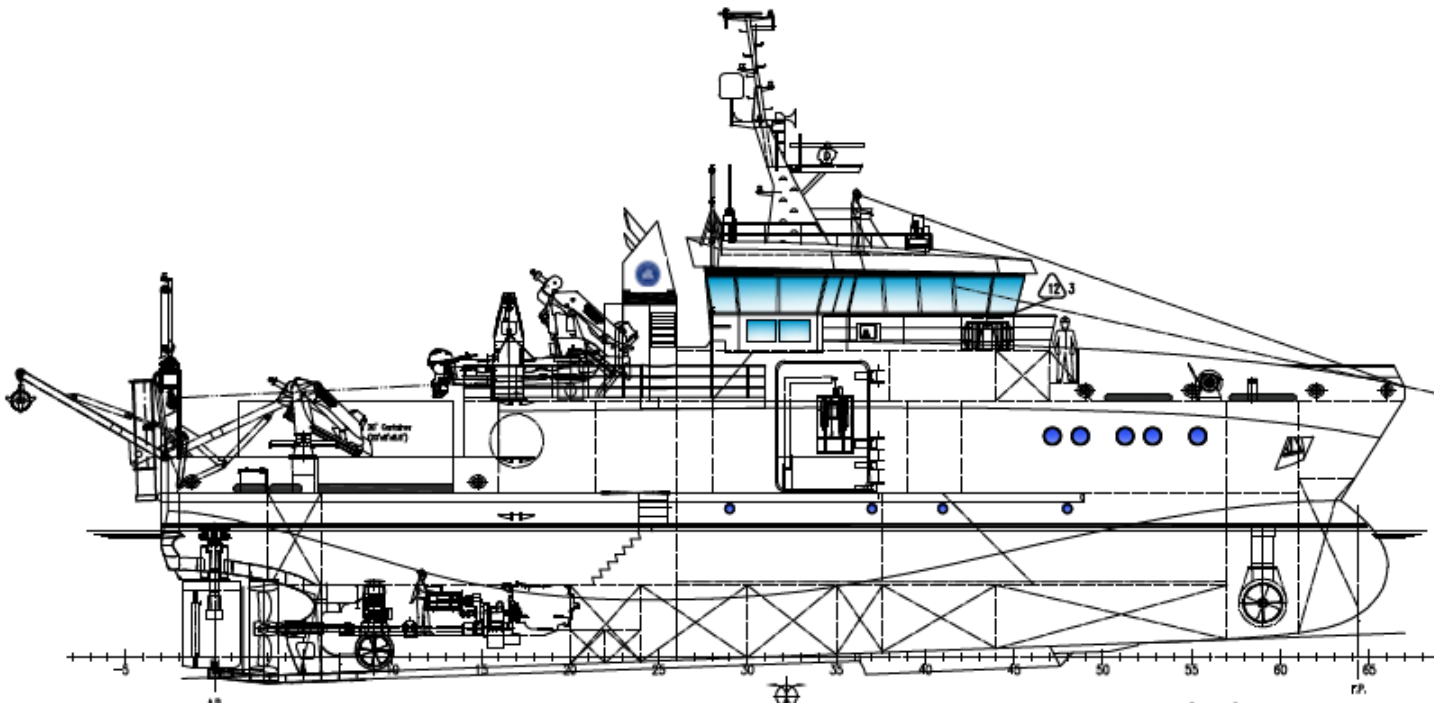
# «Prinsesse Ingrid Alexandra»

- Yard:



- Contract signed March 16<sup>th</sup> 2021
- Steel cutting and keel draft started August 2021
- Planned delivery in Bergen January 16<sup>th</sup> 2023



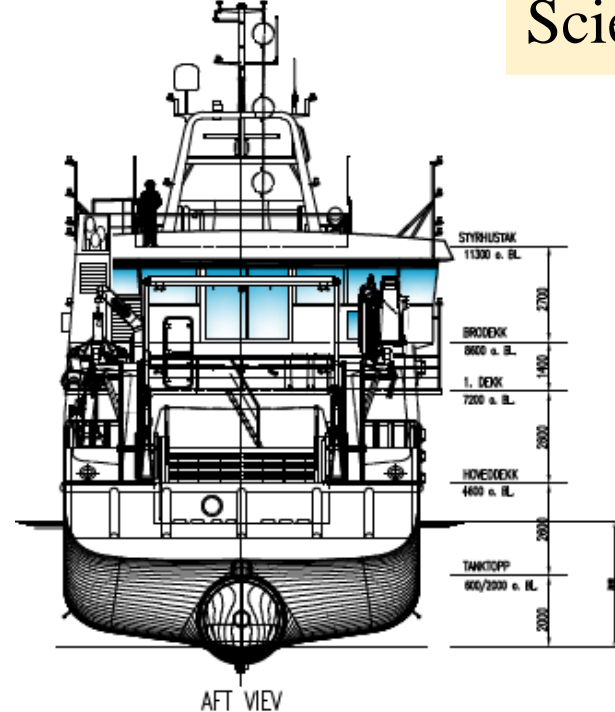
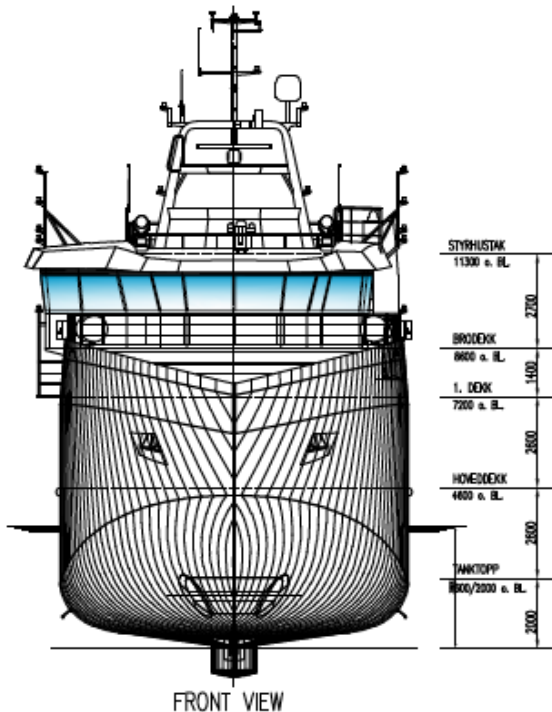


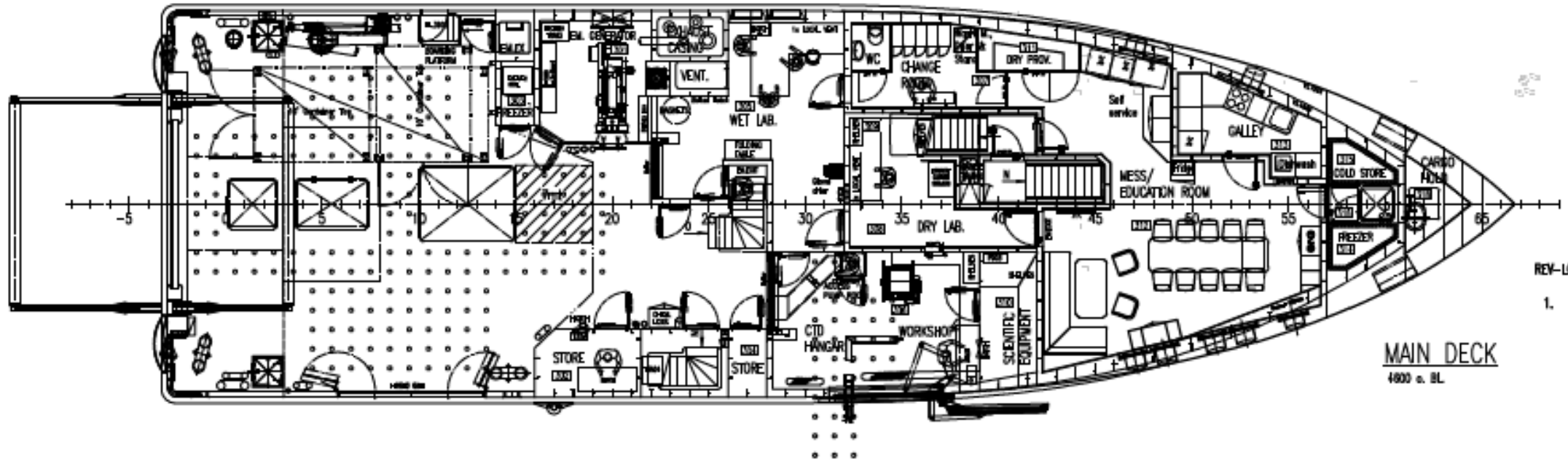
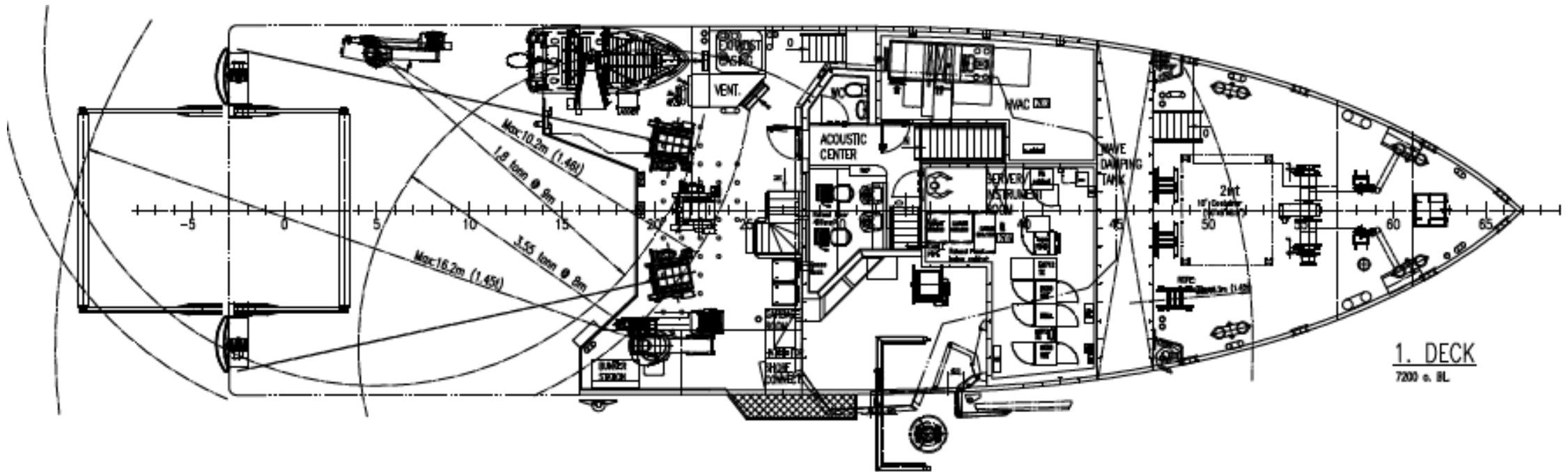
## Main characteristics

Length over all: 35 meter  
 Breadth moulded: 10 meter  
 Design draft: 4.6 meter  
 Gross tonnage: <499 GRT

## Accommodation

Accommodation for 14  
 Crew 4  
 Scientists 10 (dual cabins)

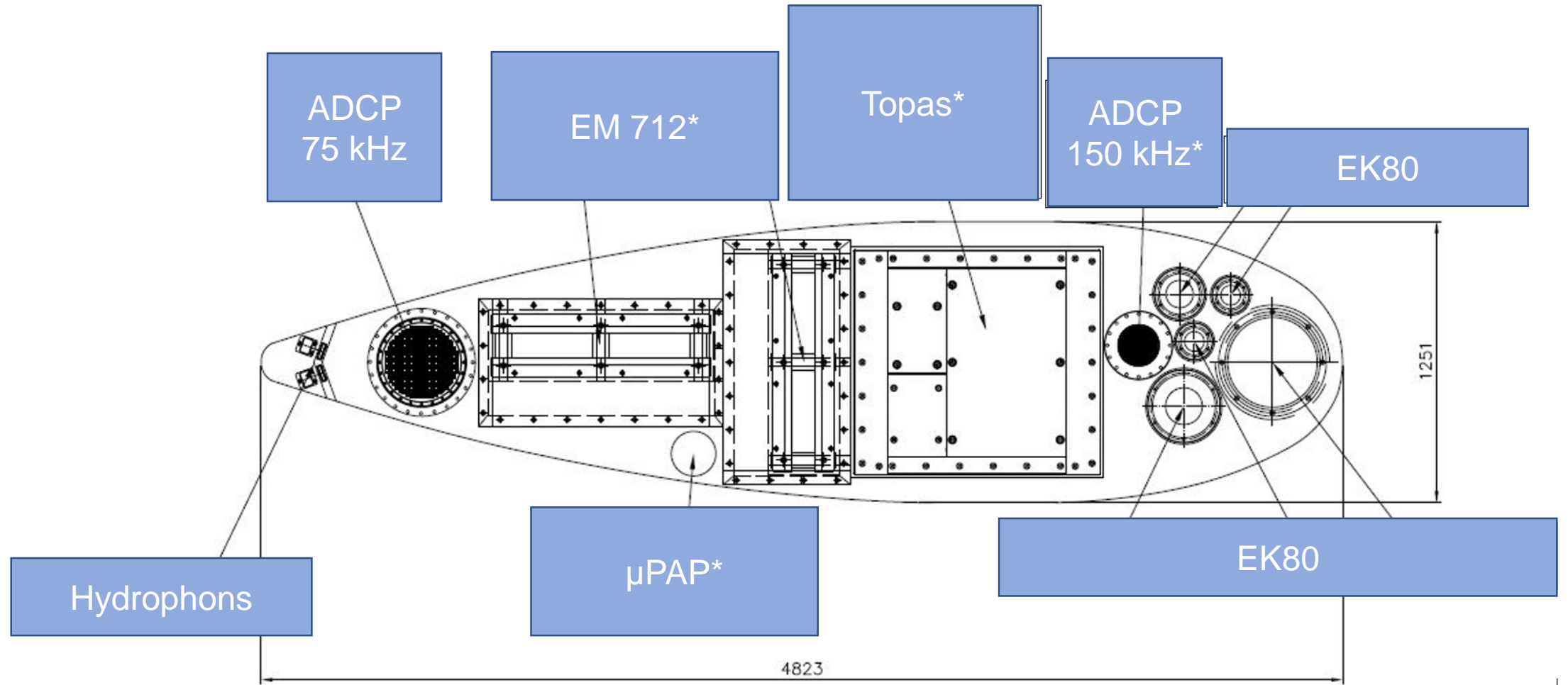




REV-LOG  
1. M



# Hydro Acoustic transducers







PRINSESSE INGRID ALEXANDRA

S

48  
6  
4  
2  
40  
8  
6  
4  
30  
8  
6  
4  
2  
20

EVELINE







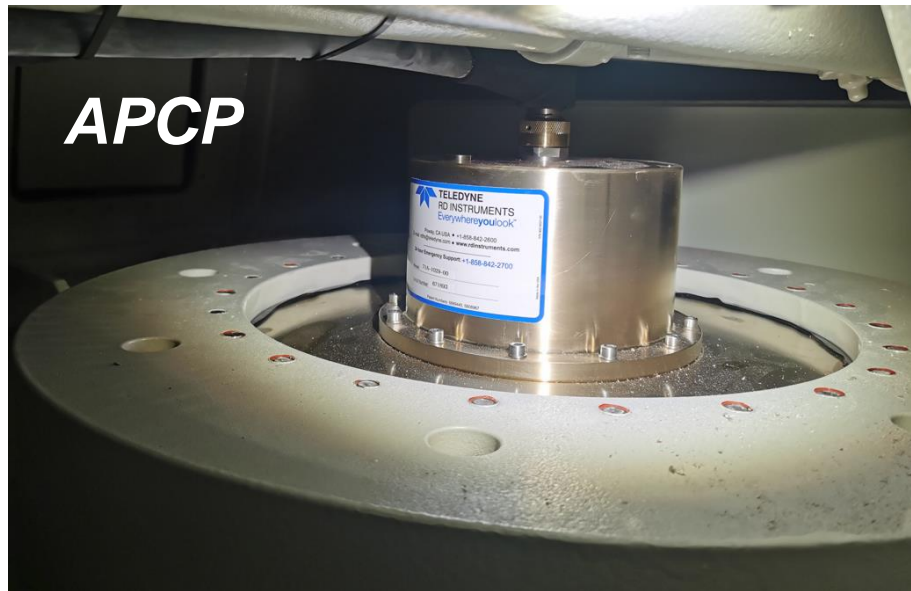


PRINSESSE INGRID ALEXANDRA  
TRONHEE

PRINSESSE INGRID ALEXANDRA







*APCP*



*EK80  
transducers*





# MS «Hydrograf»

Since January 2022 IMR is responsible for operation of Norwegian Hydrographic Service vessel MS «Hydrograf» and the two motorboats «Lomvi» and «Havelle».

The Norwegian Mapping Authority's Hydrographic Service is responsible for preparing and updating nautical charts and covers all marine and coastal waters in Norway and around Svalbard, as well as Norwegian areas in the Antarctic.



Built 1985

Length over all 43 meter

Breadth moulded 10 meter

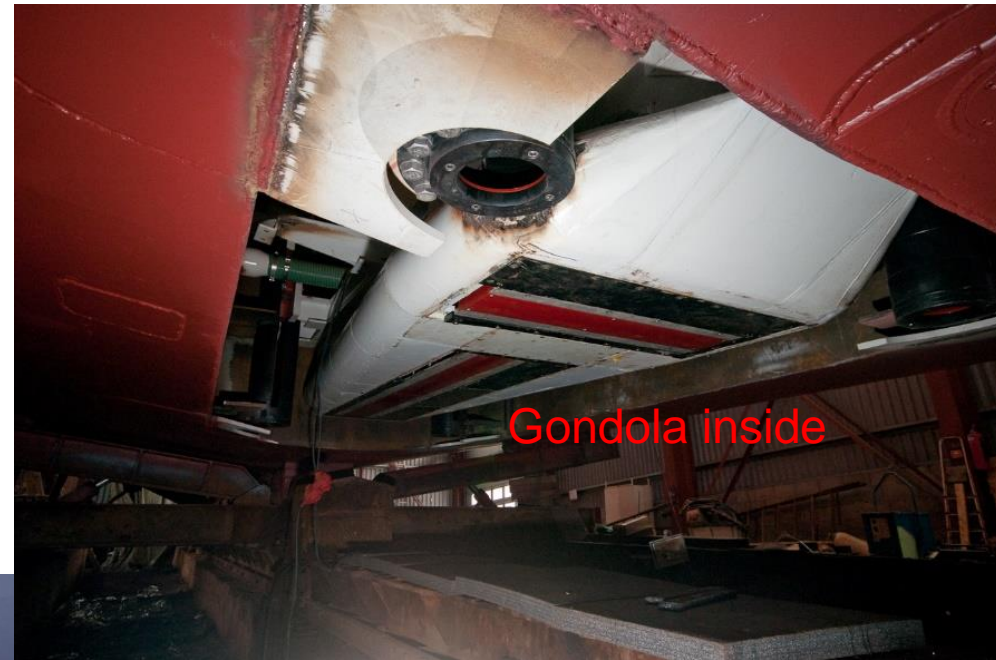


MB «Lomvi»

MB «Havelle»

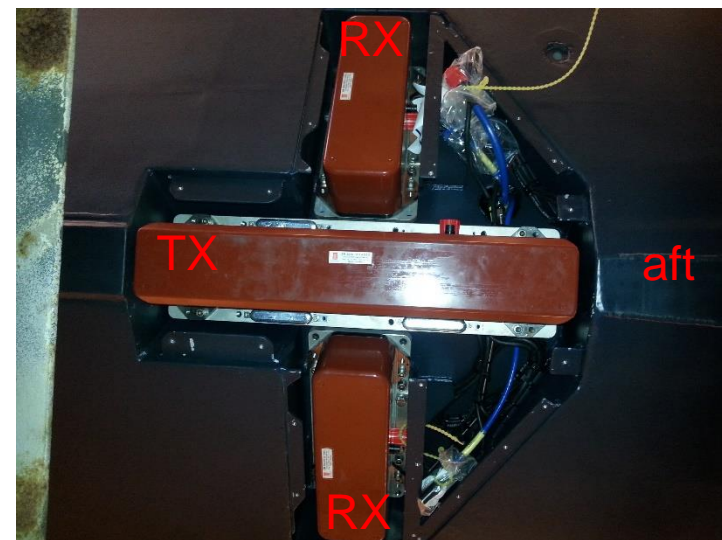


# EM710 multibeam echosounder in Gondola

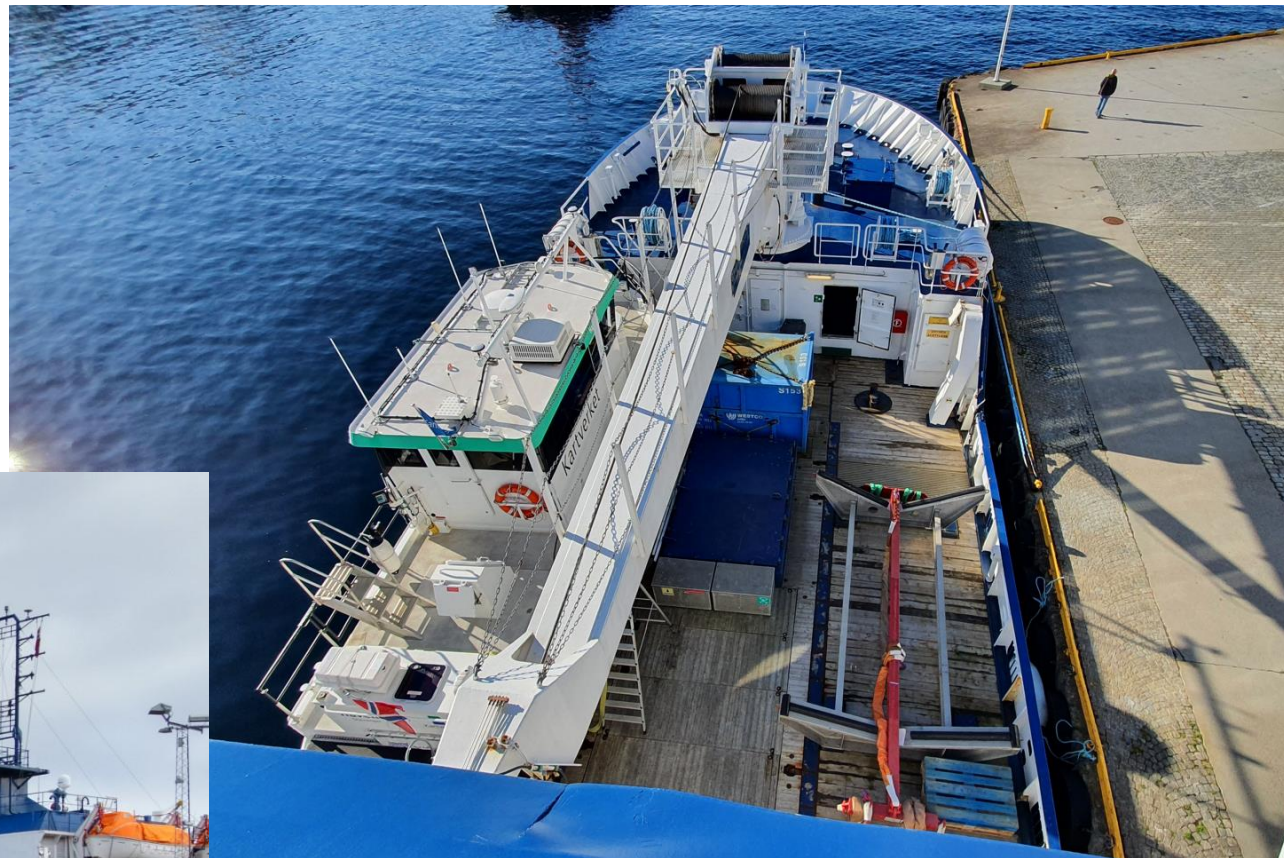




# Hull mounted EM2040 multibeam echosounder «Havelle» and «Lomvi»









# IMR start to use Marine Facilities Planning (MFP)

MAAS Software Engineering (MAS-SE) in cooperation with National Oceanographic Center (NOC) in Great Britain and Royal Institute for Sea Research (NIOZ) in the Netherlands.

Used by 15 research vessel operators in 10 countries (The Netherlands, UK, Germany, Australia, Spain, Saudi-Arabia, USA, Belgium, Finland and Japan)



A wide-angle photograph of a large body of water, possibly a fjord or bay, with a large blue and white ship on the left. The background features dark, forested mountains under a heavy, overcast sky with some light breaking through the clouds. In the foreground, a long orange buoy line stretches across the water, with a black cylindrical object and a vertical black post visible. The text "New equipment" is overlaid in the center in white.

**New equipment**





KONGSBERG

# New Autonomous Vehicle at IMR



**AUV - Autonomous Underwater Vehicle**



**USV - Unmanned Surface Vehicle**



# Sounder



## Technical data

Hull: Glass-reinforced plastic (GRP)

Producer: VIKING Norsafe (Norway)

Length: 8 meter

Weight: 5000 kg

Engine: 110kW/145bhp Steyr diesel engine

Survey speed: 4-8 knots (13 knots max)

Range: 20 days @4 knots (2x400 liter fuel capacity)

Operated autonomous or remote controlled



Delivery July 2023

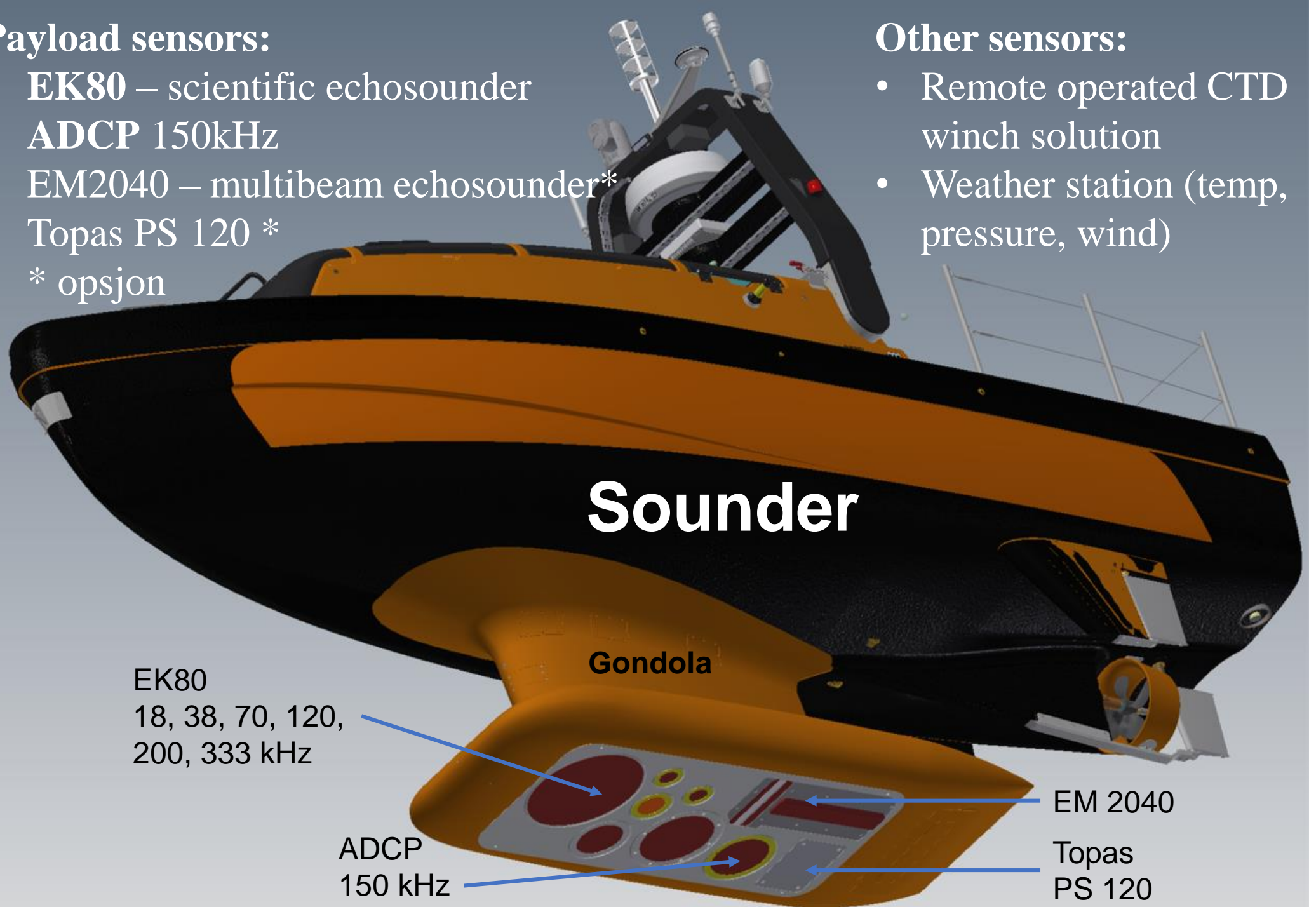


## Payload sensors:

- **EK80** – scientific echosounder
- **ADCP** 150kHz
- **EM2040** – multibeam echosounder\*
- **Topas PS 120** \*
- \* opsjon

## Other sensors:

- Remote operated CTD winch solution
- Weather station (temp, pressure, wind)



EK80  
18, 38, 70, 120,  
200, 333 kHz

Gondola

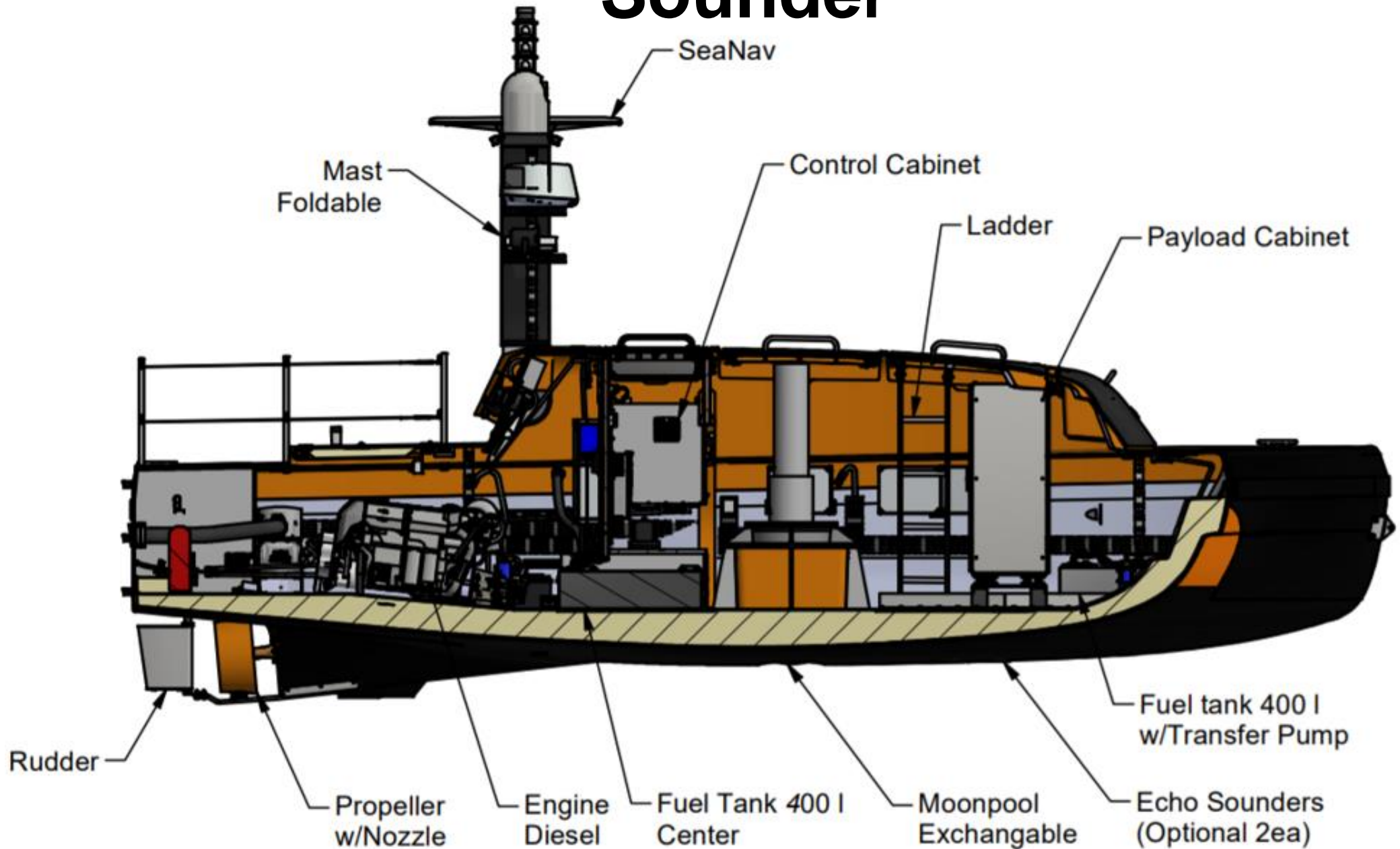
ADCP  
150 kHz

EM 2040

Topas  
PS 120



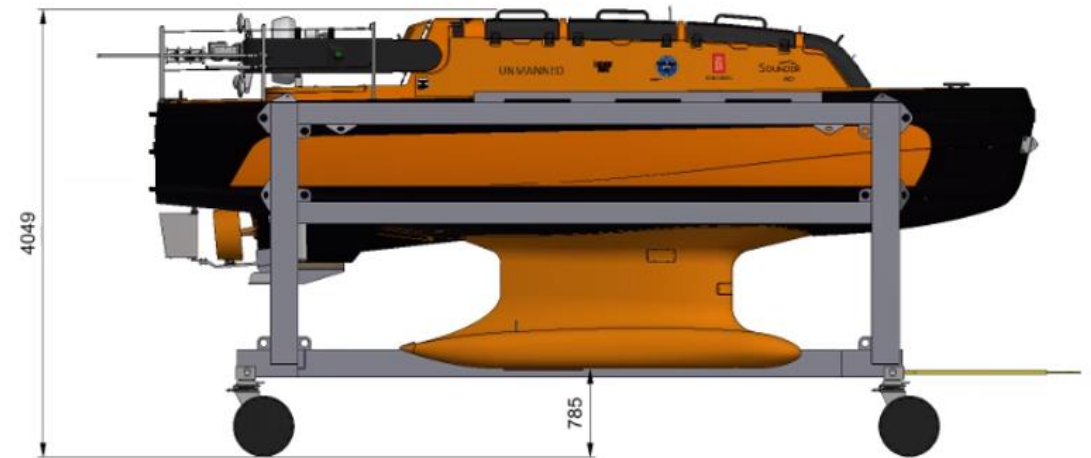
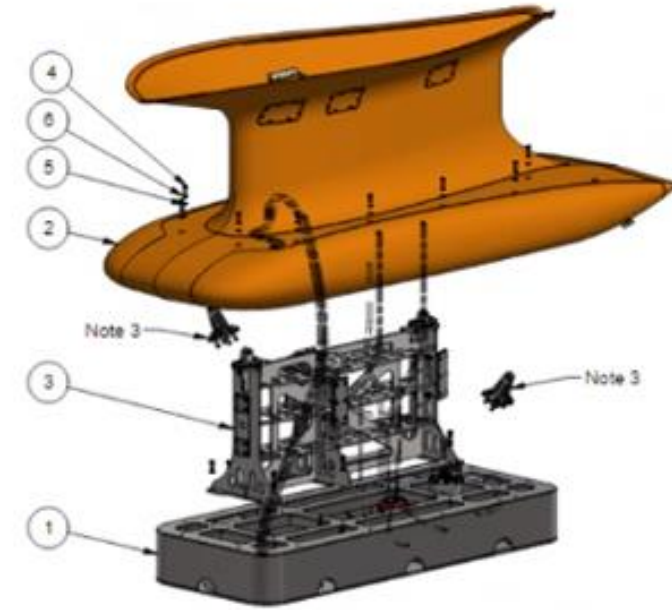
# Sounder





# Transportation and storage

## Gondola



# ROV and Crewed Submersible

REV Ocean

## Short Overview of Capabilities

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Subsea Manager  
REV Ocean

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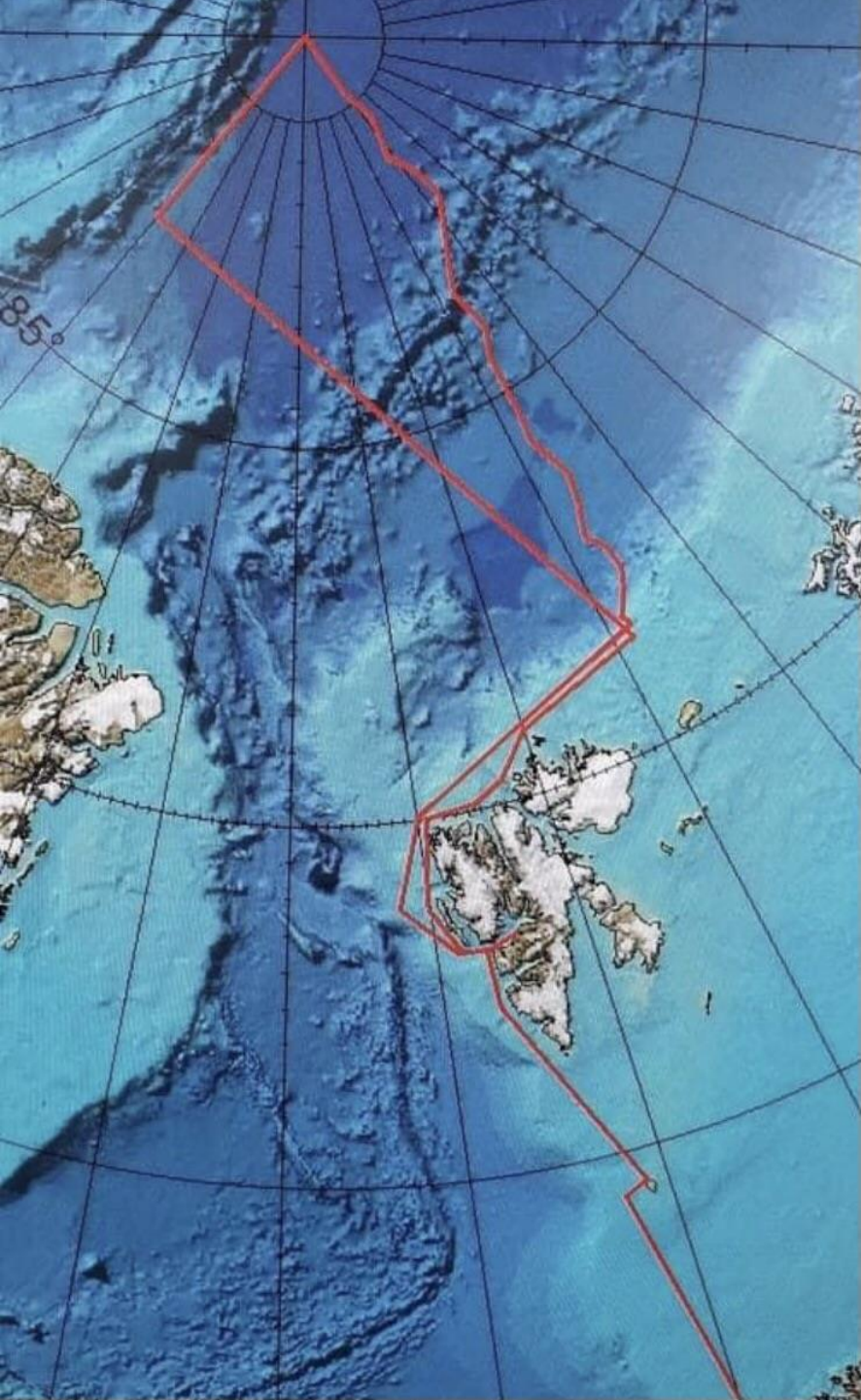
P: +47 917 72 700

W: [revocean.org](http://revocean.org)

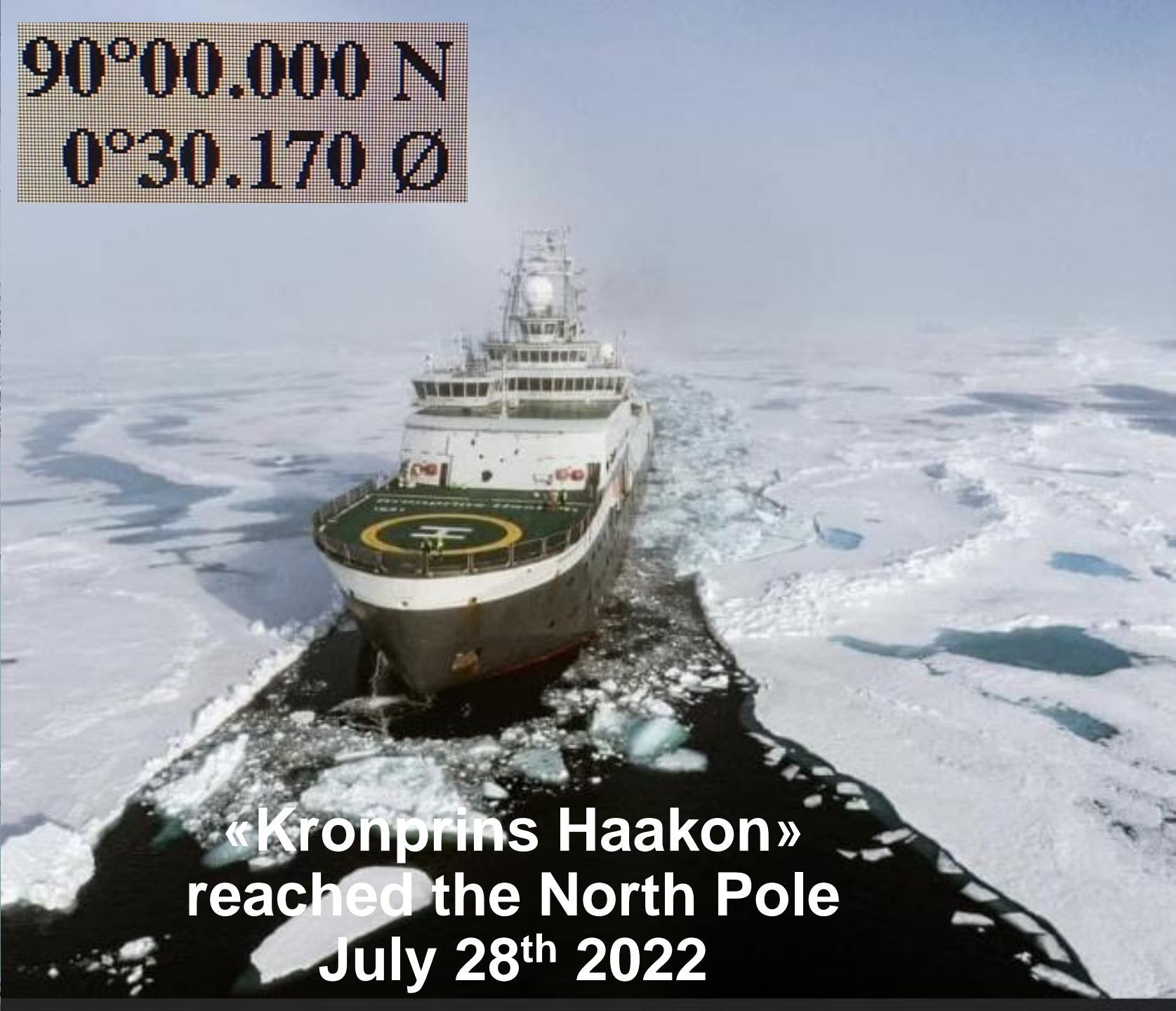
REV Ocean







**90°00.000 N**  
**0°30.170 Ø**



**«Kronprins Haakon»  
reached the North Pole  
July 28<sup>th</sup> 2022**