

Kronprins Haakon

New Norwegian
ice going
Research Vessel

Jan Bremnes
Instrumentation



Maud visiting Bergen summer 2018



Technical details

- Length over all (LOA): 100,0m
- Breadth: 21,0m
- Draft: 8,5m
- Gross tonnage 10900T
- 4 diesel gensets (A/C) 15MW
- Two (Z-drives) aft 11MW → 52 Ford F-150 XL → 115 Golf 1.5 TSI
- Two tunnel thrusters fwd 2,2MW → 10 F-150 XL → 23 Golf 1.5 TSI
- Dynamic Positioning (DP 1)
- PC-3 *Year-round operation in second-year ice which may include multi-year ice inclusions.*

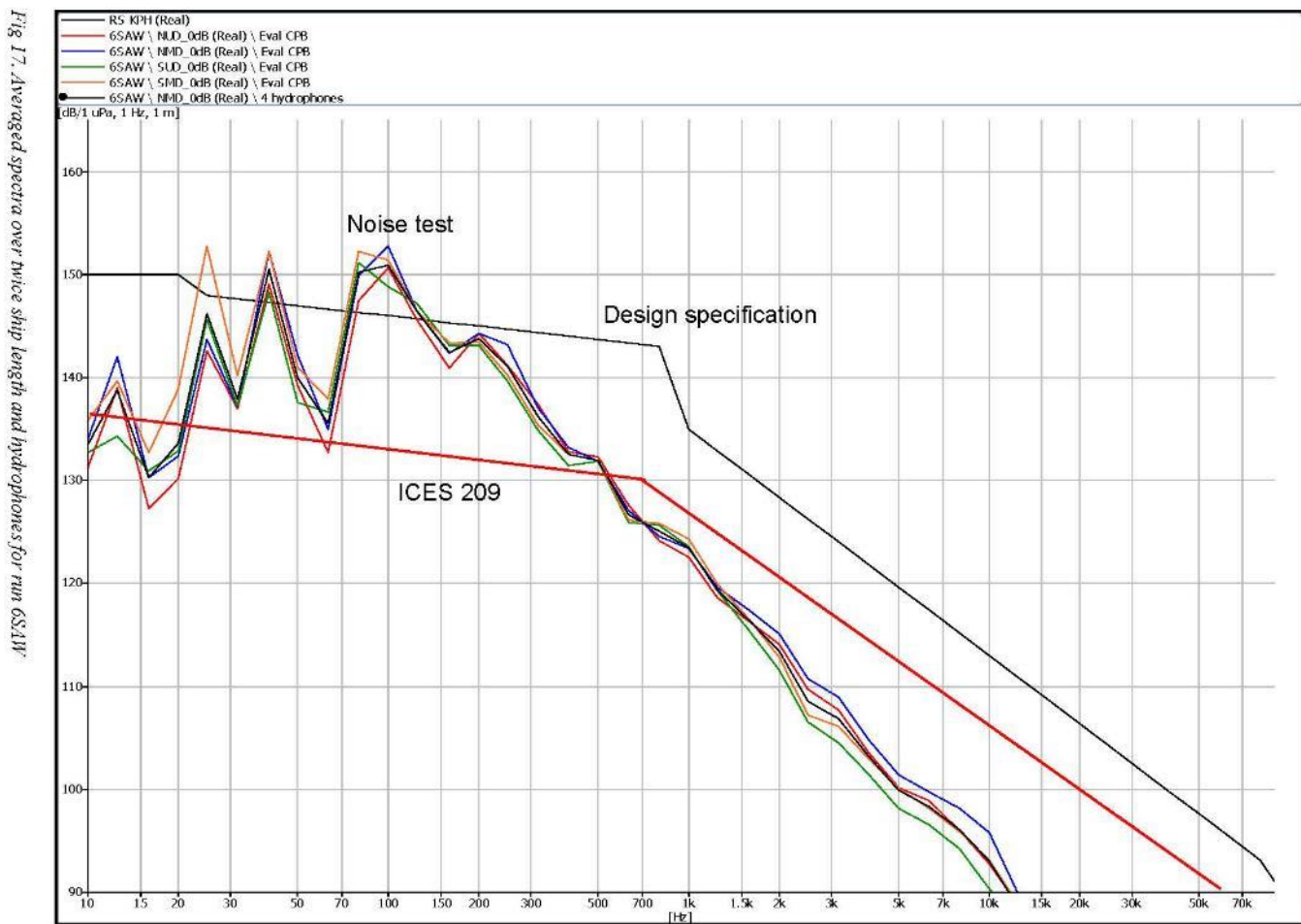


15 minutes tour of the vessel

- Underwater Radiated Noise
- Bubble sweep down
- Ice going/icebreaking capabilities
- Helicopter facilities
- Multi-function scientific capability



Underwater Radiated Noise

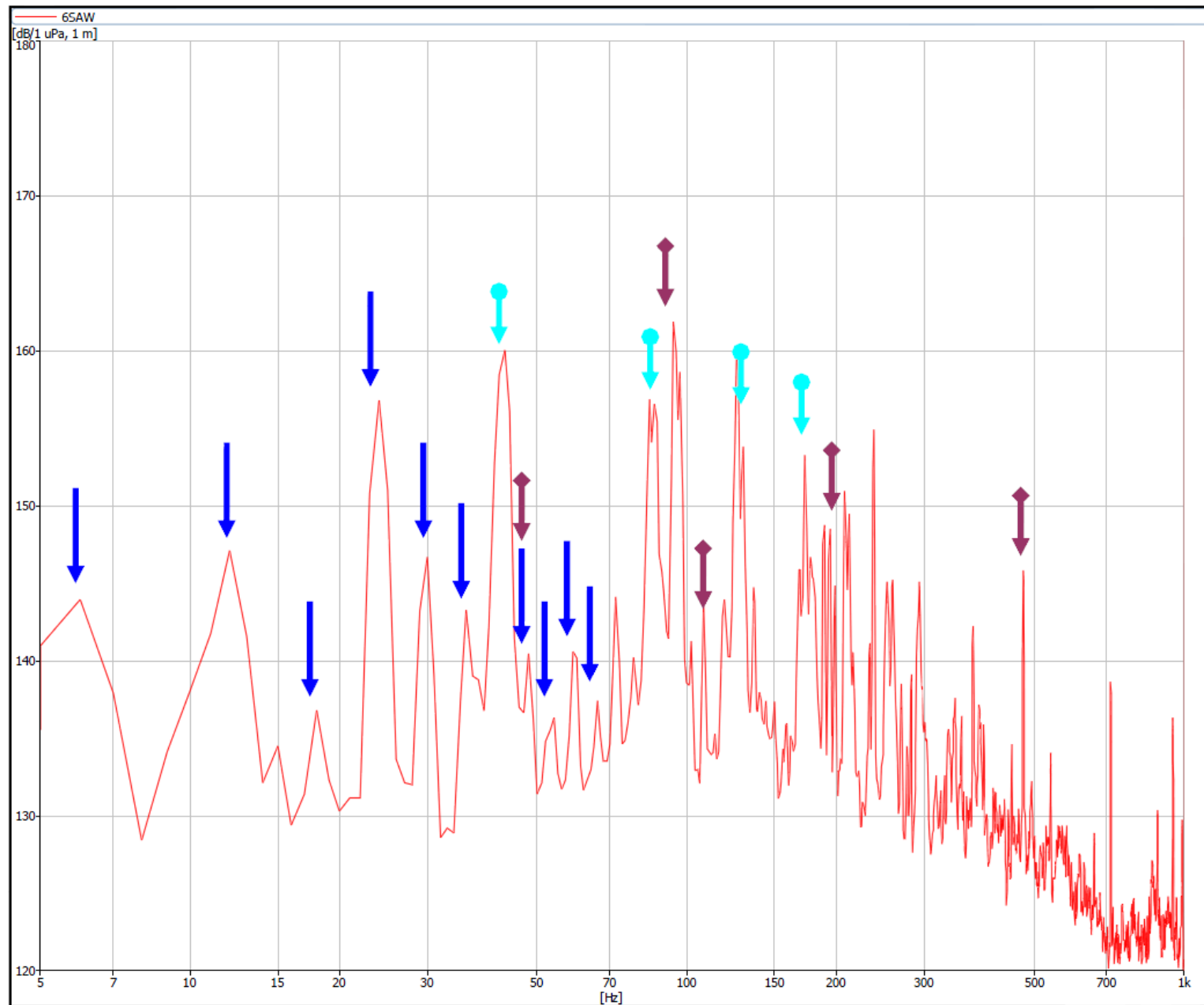
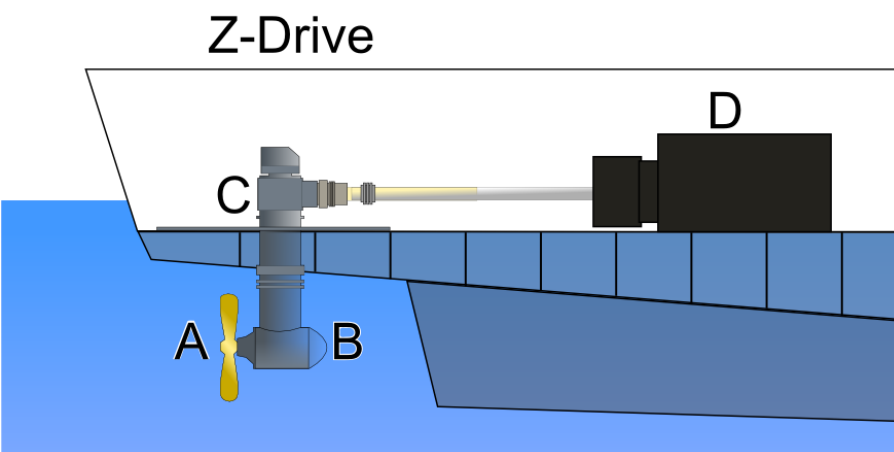


Hegernes acoustic range

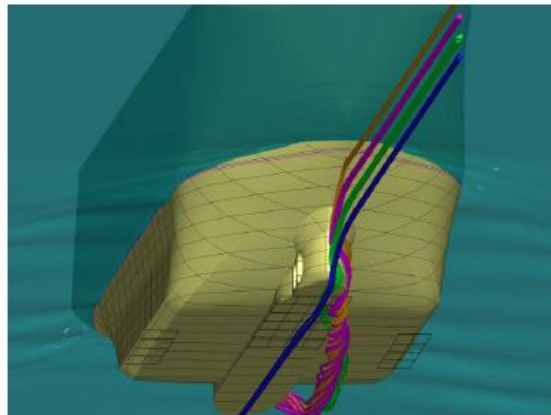
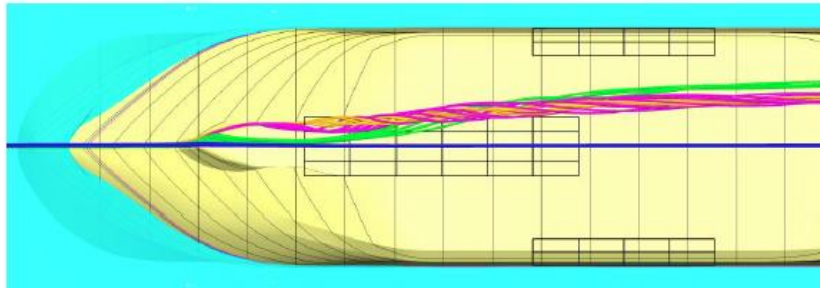
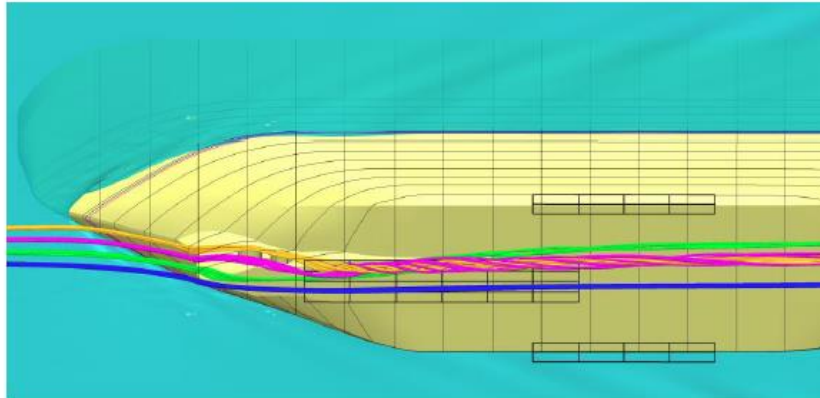
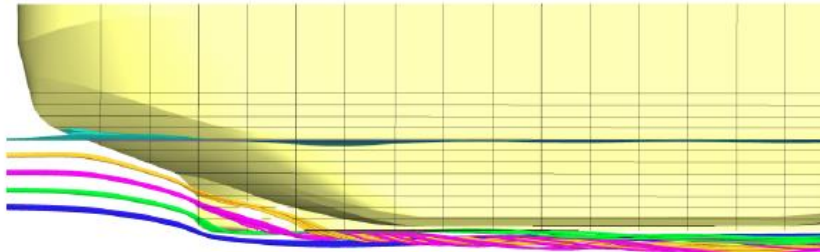
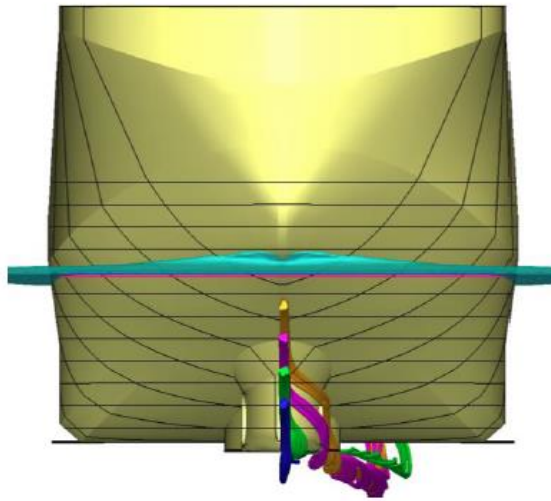
COMMERCIAL – IN - CONFIDENCE



- Engine firing rate | 6 Hz and harmonics (720 RPM)
No blade rate detected
- Gearlines C | 43.1 Hz and harmonics (1-8)
- Possible Gearline B | 47.9 Hz and harmonics (1-3+)



Bubble sweep down design



2018-aug-12 03:14:15.512



44 Drop Keel - Cam PS
ENC-4P-H264(1701870)(1)

Acoustics package



Starboard drop keel

- Acoustic Doppler Current Profilers ADCP 150 kHz
- Scientific multibeam echo sounder for fishery research applications ME 70 and MS 70
- Scientific wide band echo sounder EK 80 with 18 kHz, 38 kHz, 70 kHz, 120 kHz, 200 kHz and 333 kHz transducers

Portside drop keel

- Shallow to medium water multi beam echo sounder EM 710
- Acoustic Doppler Current Profilers ADCP 38 kHz

Artic tank

- Acoustic Doppler Current Profilers ADCP 150 kHz and 38 kHz
- Deep water multi beam echo sounder EM 302
- Scientific wide band Echo sounder EK 80 with 18 kHz, 38 kHz, 70 kHz, 120 kHz, 200 kHz and 333 kHz transducers
- Sub bottom profilers TOPAS and SBP 300
- Hydrographic single beam echo sounder EA 640



Ice going/icebreaking capabilities





Helicopter facilities

- Helicopter hangar can carry up to 2 helicopter
- Can mobilize under one hour



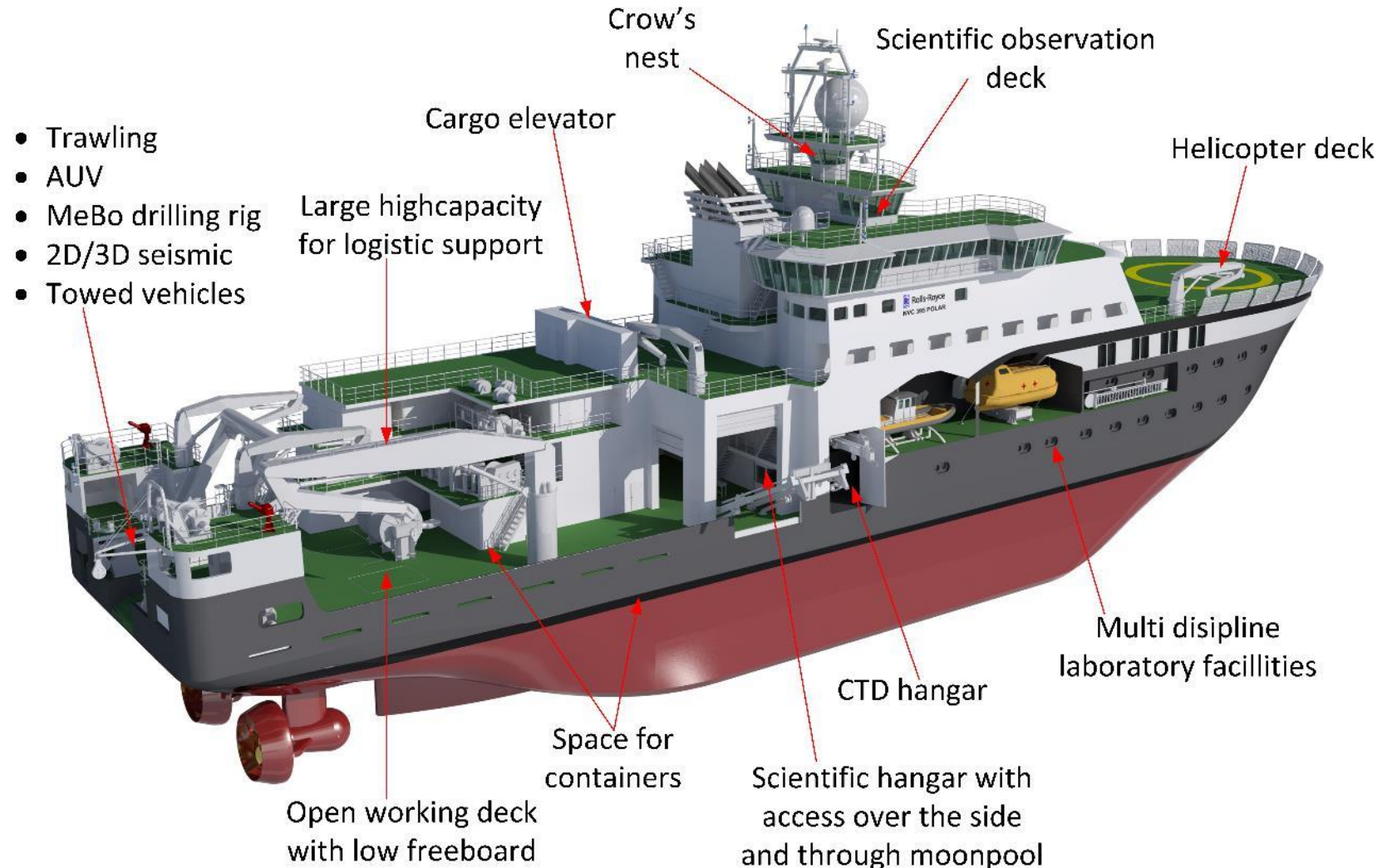


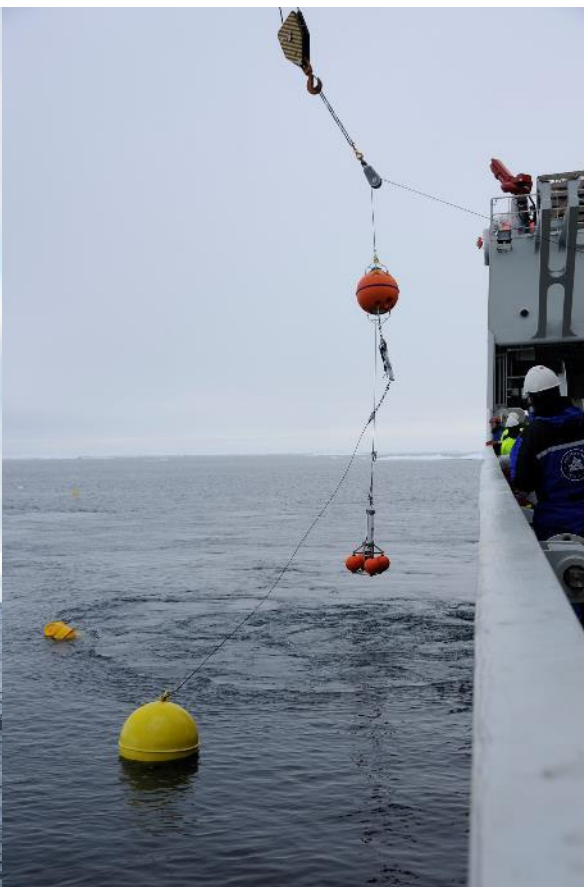
IMO 9739587

SEAONICS

Multi-function scientific capability

- Fishery
- Geology
- Marine surveillance
- Environmental monitoring
- Seabed mapping





Thank
you for
your
attention

