RRS JAMES COOK

Shipbuilder

Flekkefjord Slipp & Maskinfabrikk AS, Norway

A new multi-role oceanographic vessel delivered to NERC 31st August 2006

Designer

Skipsteknisk AS, Norway

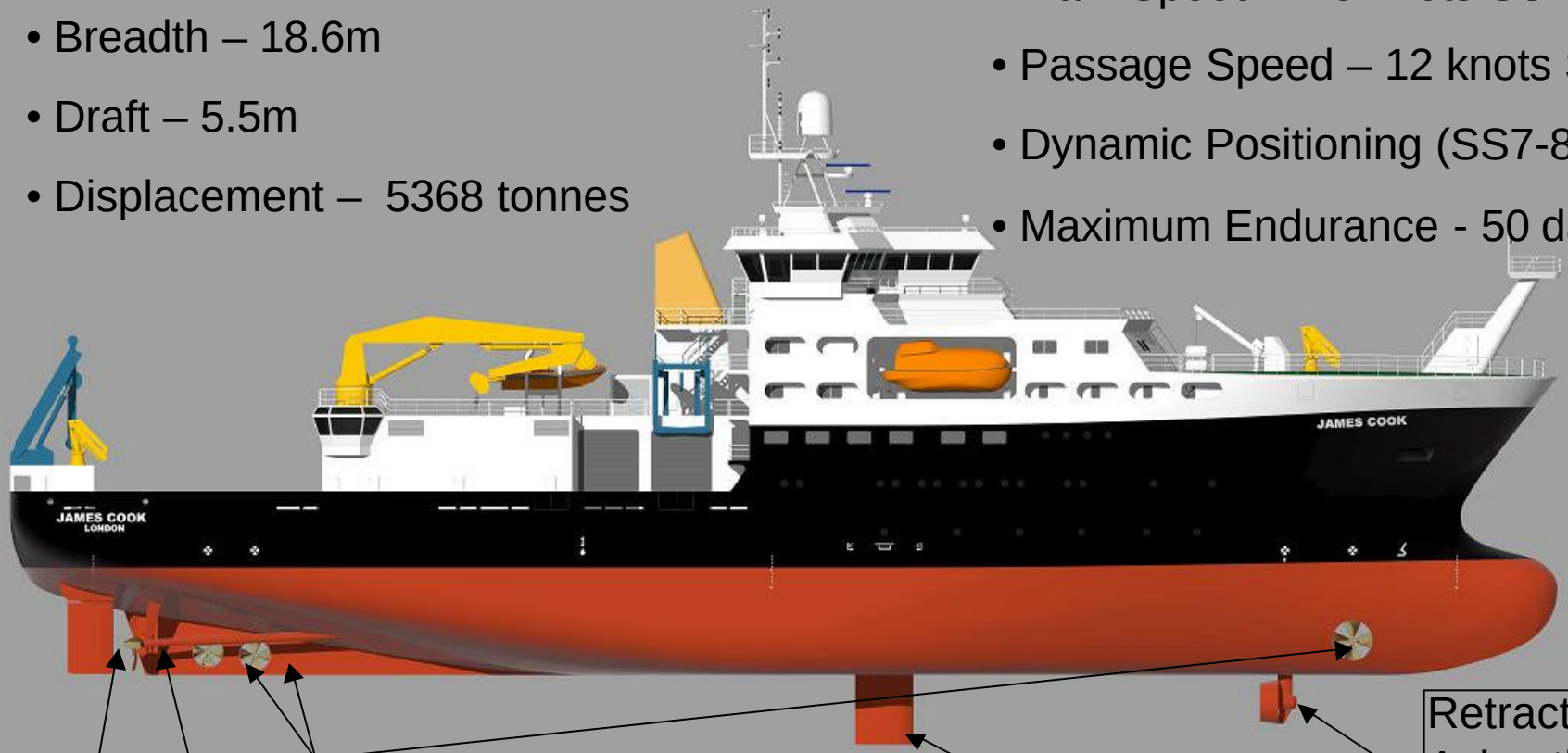
17 October 2006 – INMARTECH

RRS JAMES COOK – UPDATE AUGUST 2006

NATURAL ENVIRONMENT RESEARCH COUNCIL

- Length – 89.2m
- Breadth – 18.6m
- Draft – 5.5m
- Displacement – 5368 tonnes

- Max. Speed – 15 knots SS4
- Passage Speed – 12 knots SS4
- Dynamic Positioning (SS7-8)
- Maximum Endurance - 50 days



3 Transverse Thrusters

Drop Keel x 2

Retractable Azimuthing Thruster

Twin Screw Fixed Pitch Propulsion

Twin High Lift Rudders

- 277.5m^2 Laboratory Space
- 446m^2 Aft Deck & Starboard Deck
- 82m^2 Hangar

Science Drivers

Existing remit of NERC in Ocean and Earth Science

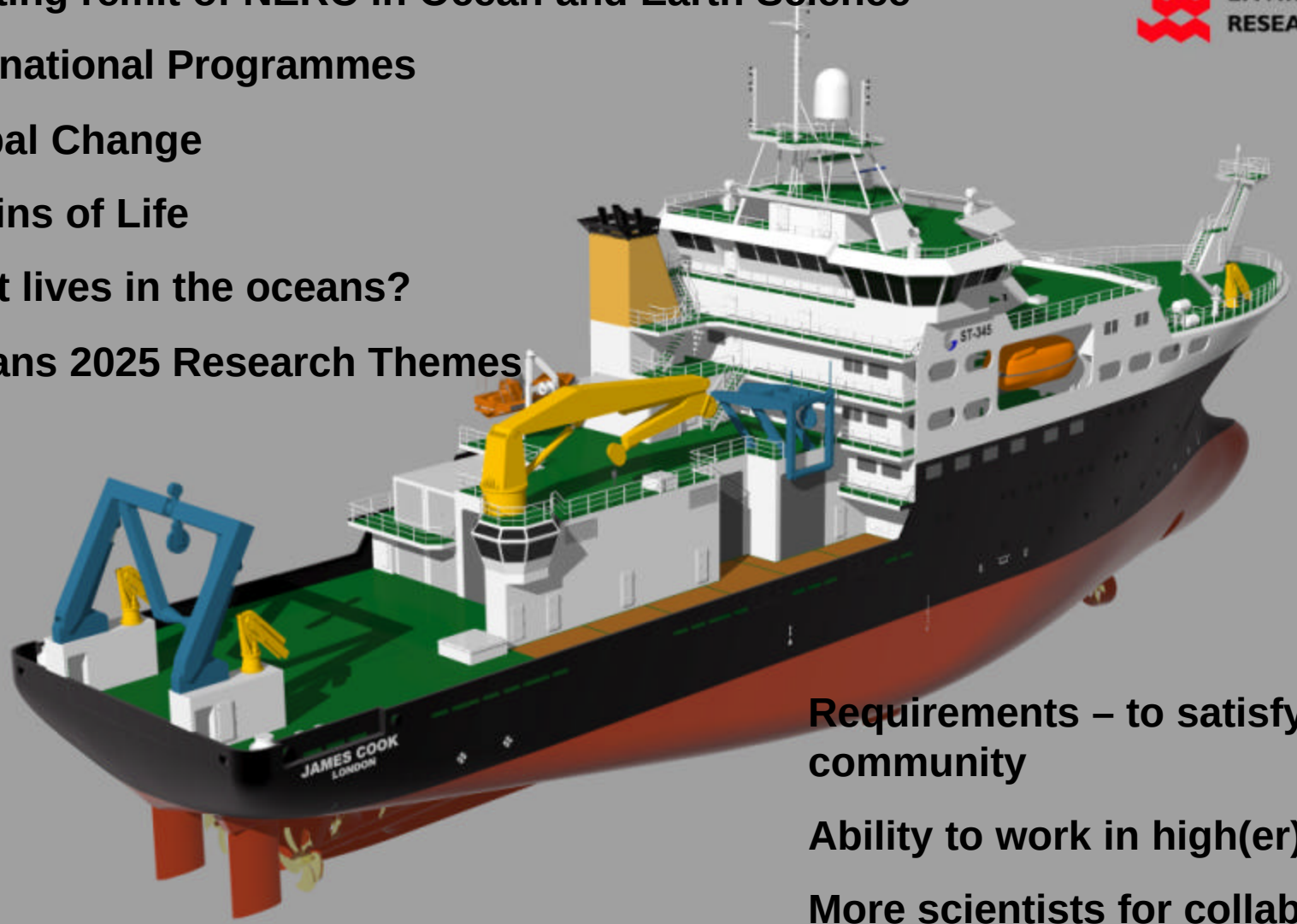
International Programmes

Global Change

Origins of Life

What lives in the oceans?

Oceans 2025 Research Themes



Requirements – to satisfy research community

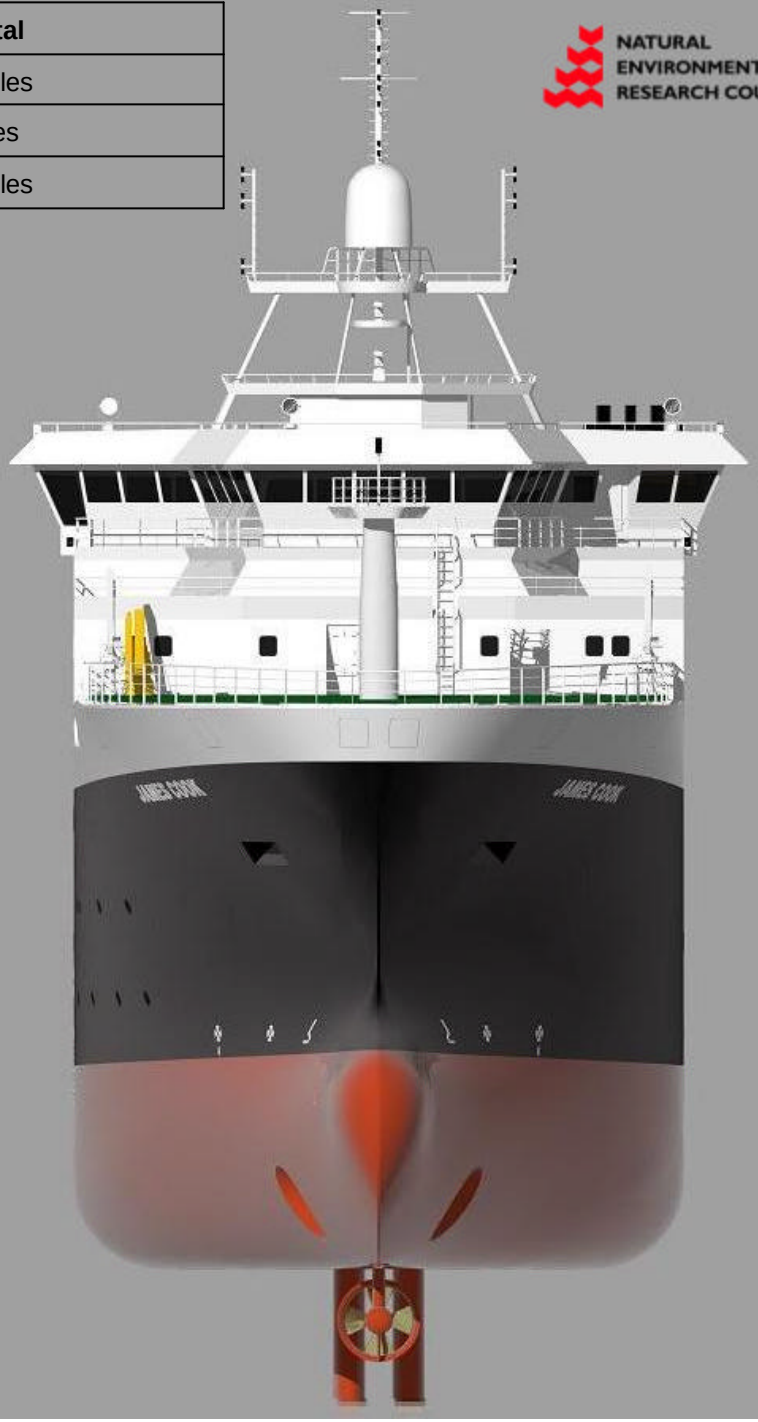
Ability to work in high(er) seastates

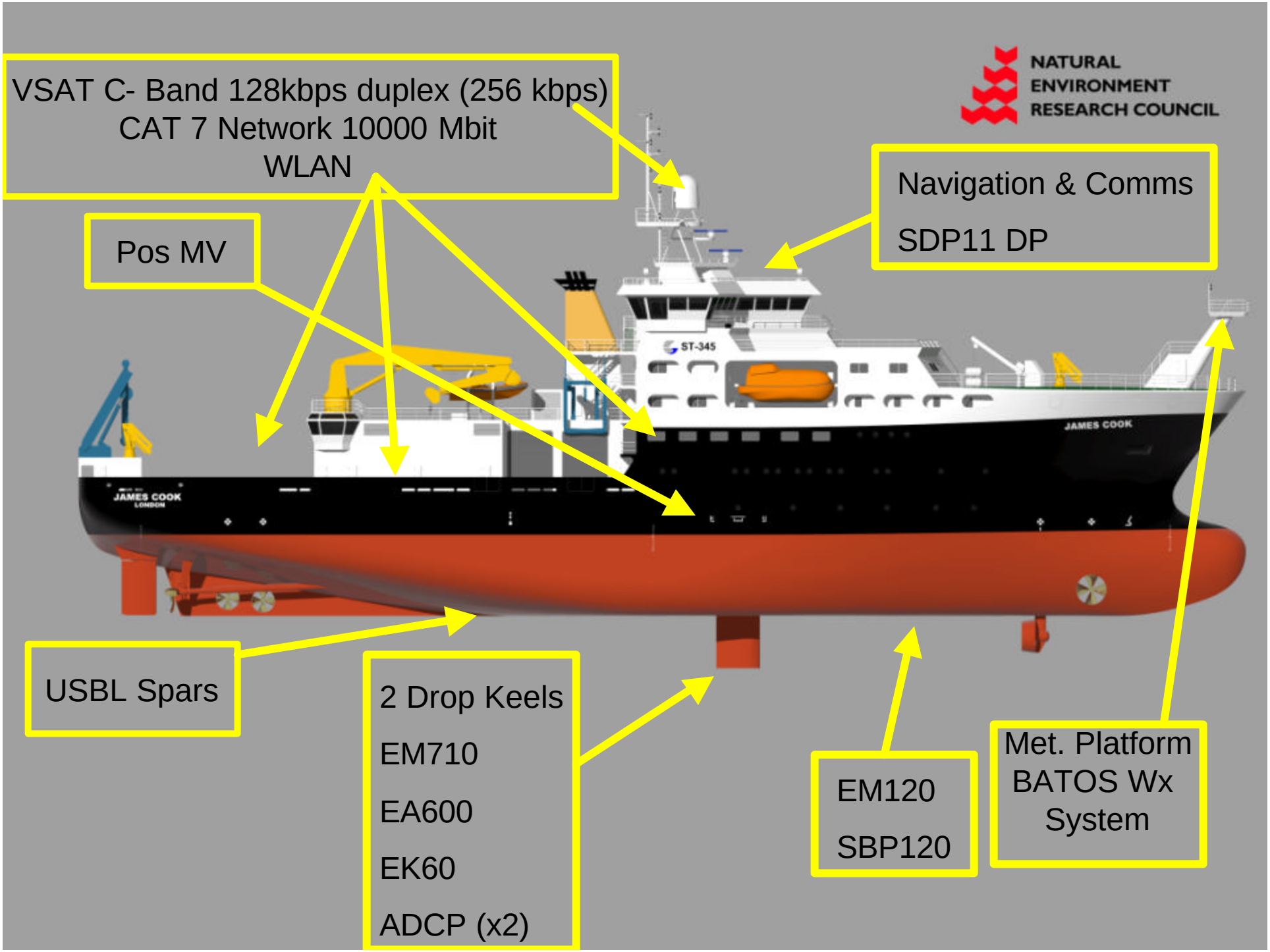
More scientists for collaborative programmes

Dynamic Positioning – ROV enabling (for example)

ACCOMMODATION	54 Total
Scientific Berths:	31 singles
Officers:	9 singles
Crew & Technicians	14 singles

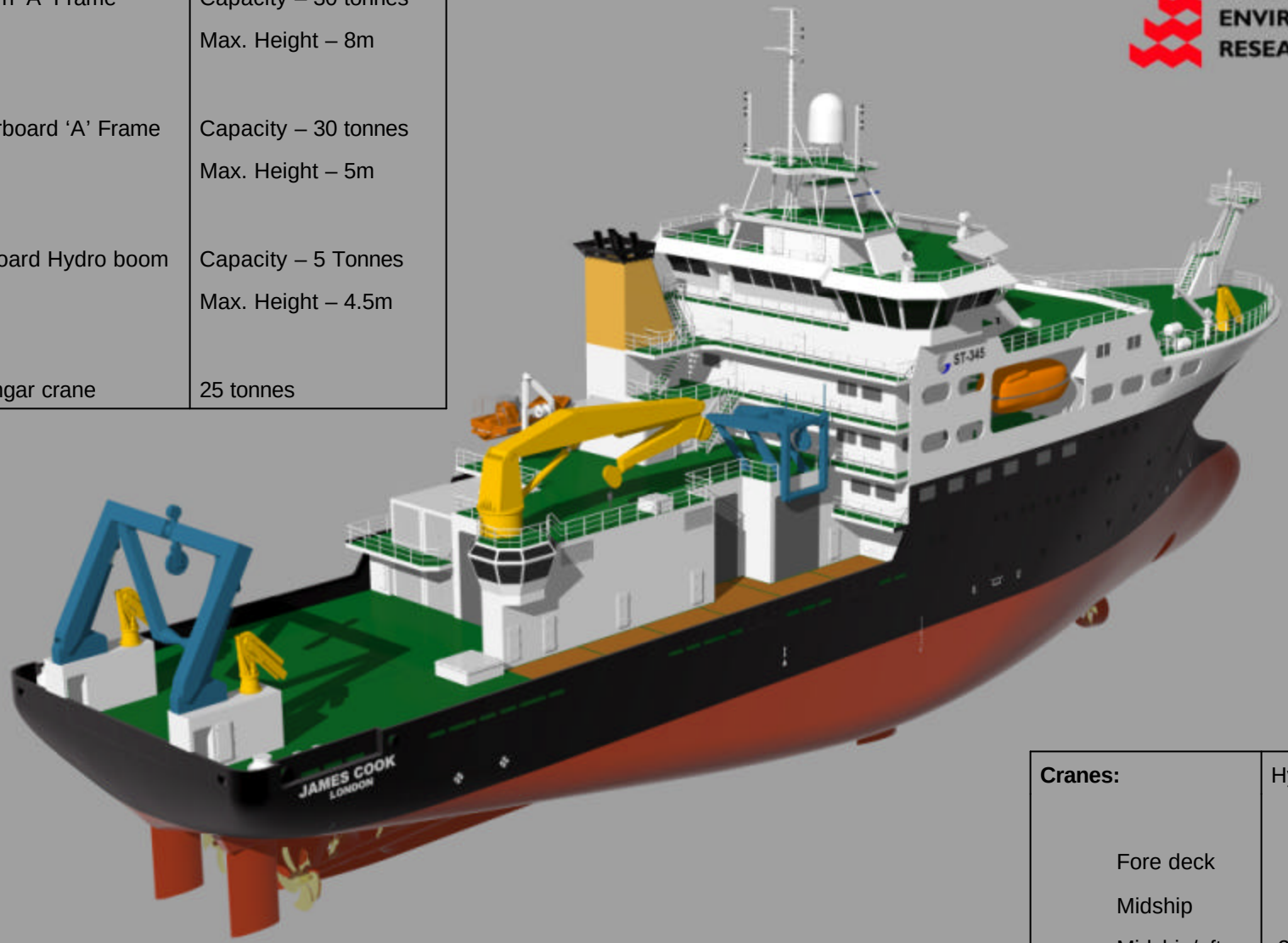
NATURAL ENVIRONMENT RESEARCH COUNCIL




VSAT C- Band 128kbps duplex (256 kbps)
CAT 7 Network 10000 Mbit
WLAN
Pos MV
Navigation & Comms
SDP11 DP
USBL Spars
2 Drop Keels
EM710
EA600
EK60
ADCP (x2)
EM120
SBP120
Met. Platform
BATOS Wx
System
NATURAL
ENVIRONMENT
RESEARCH COUNCIL
ST-345
JAMES COOK
JAMES COOK
LONDON

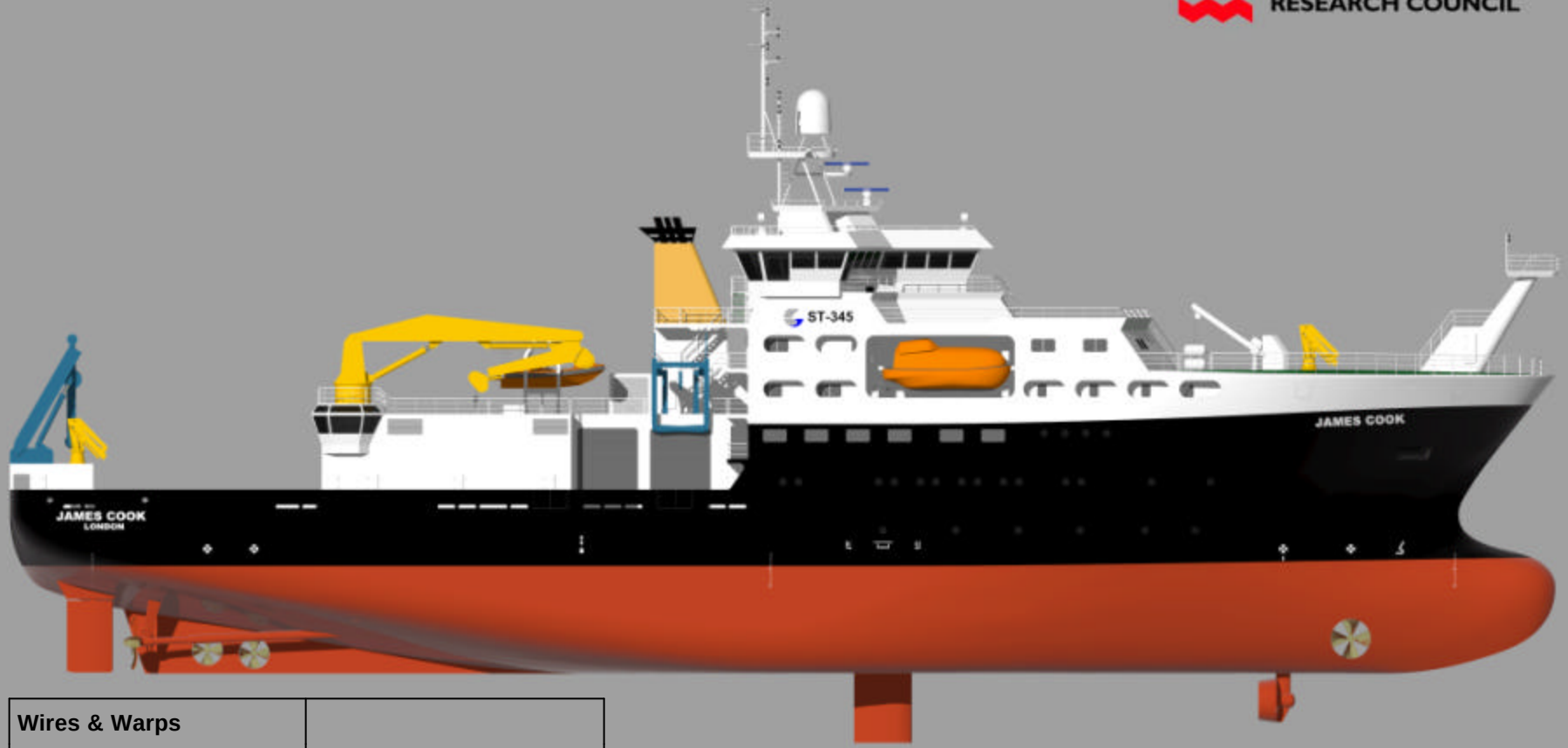
A-Frames & Booms	
Stern ‘A’ Frame	Capacity – 30 tonnes Max. Height – 8m
Starboard ‘A’ Frame	Capacity – 30 tonnes Max. Height – 5m
Starboard Hydro boom	Capacity – 5 Tonnes Max. Height – 4.5m
Hangar crane	25 tonnes

NATURAL ENVIRONMENT RESEARCH COUNCIL



Cranes:	Hydraulic Knuckle
Fore deck	40 tonnes.m
Midship	
Midship/aft	250 tonnes.m
Aft Port	40 tonnes.m
Aft Starboard	40 tonnes.m

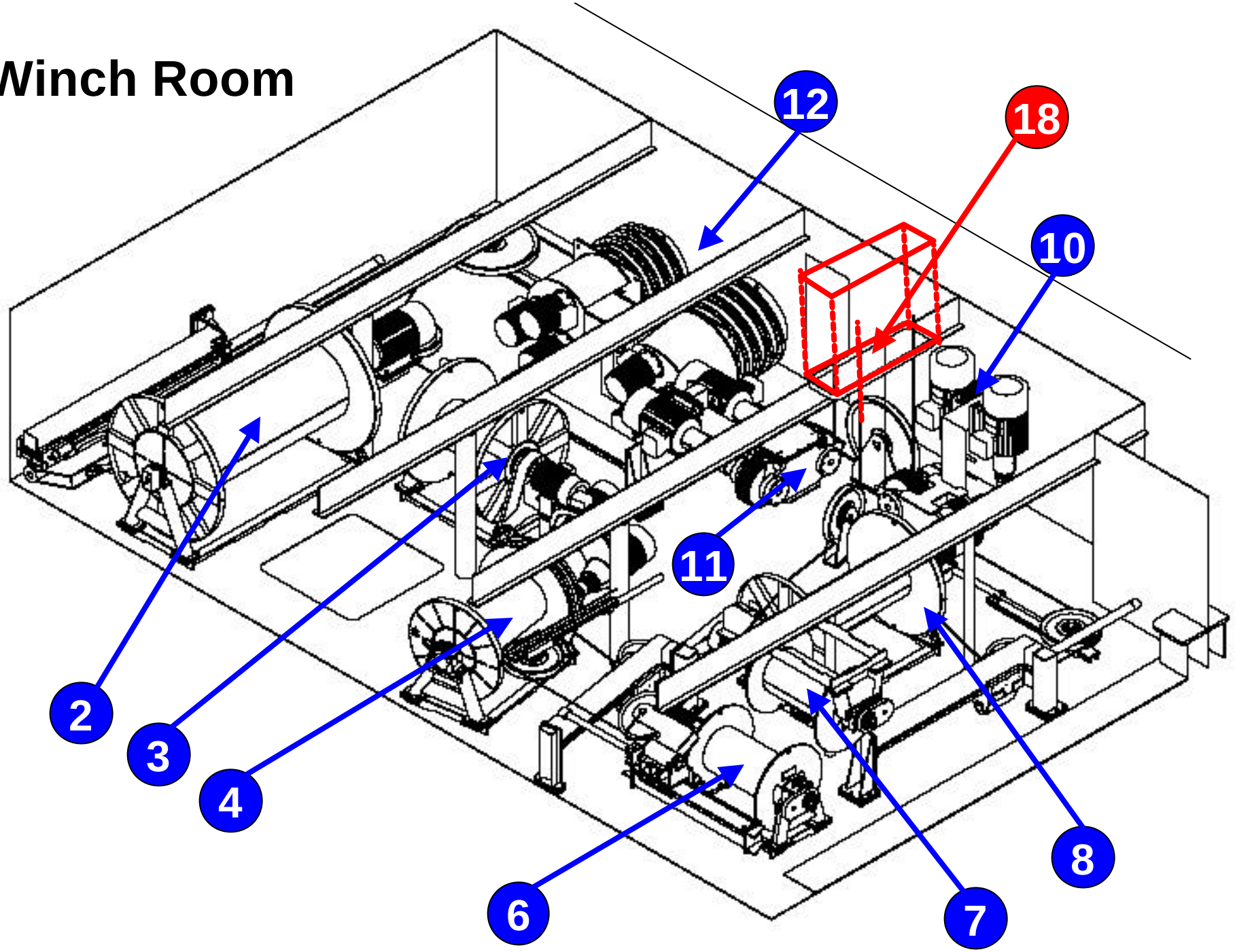
NATURAL ENVIRONMENT RESEARCH COUNCIL

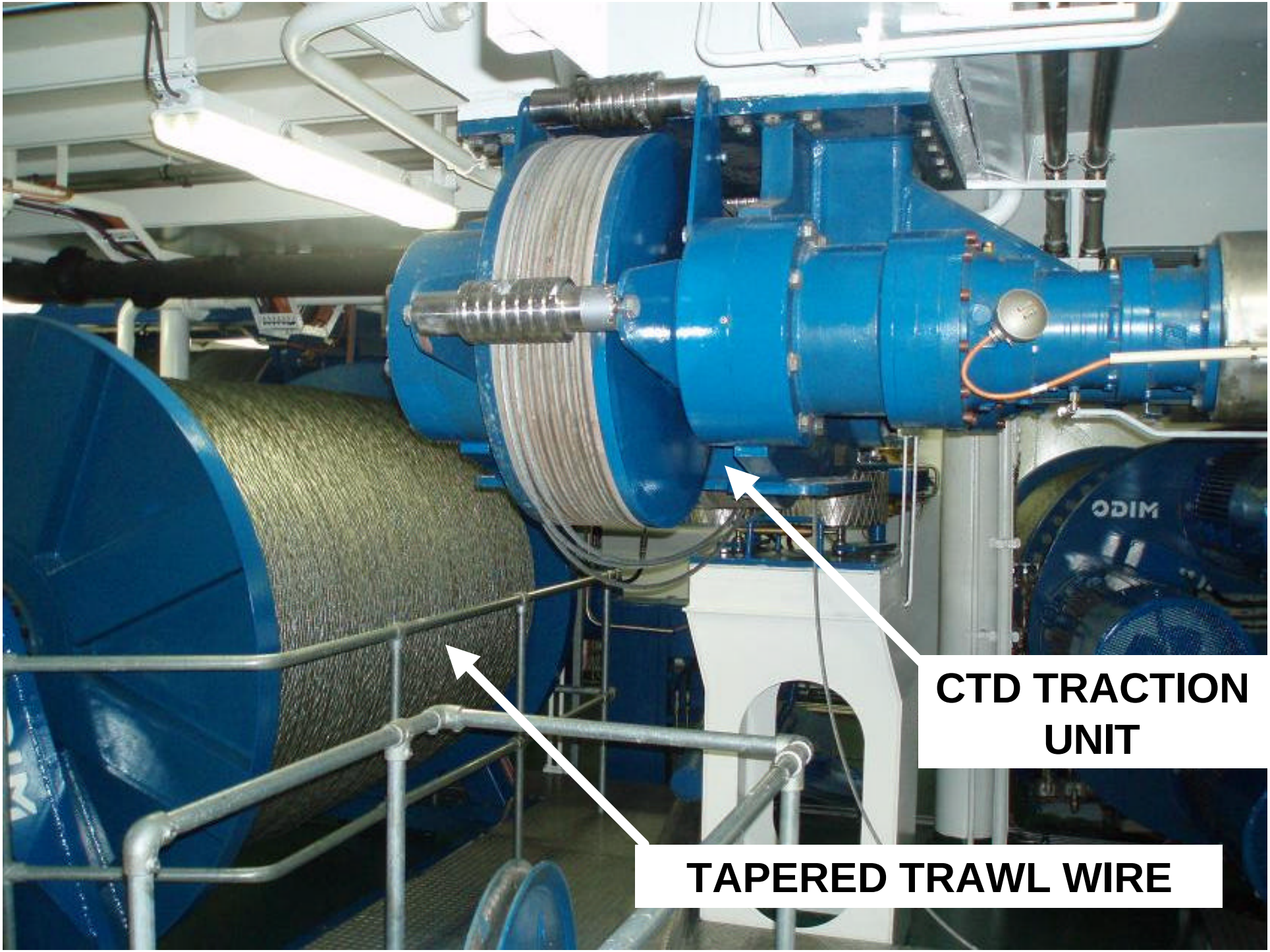


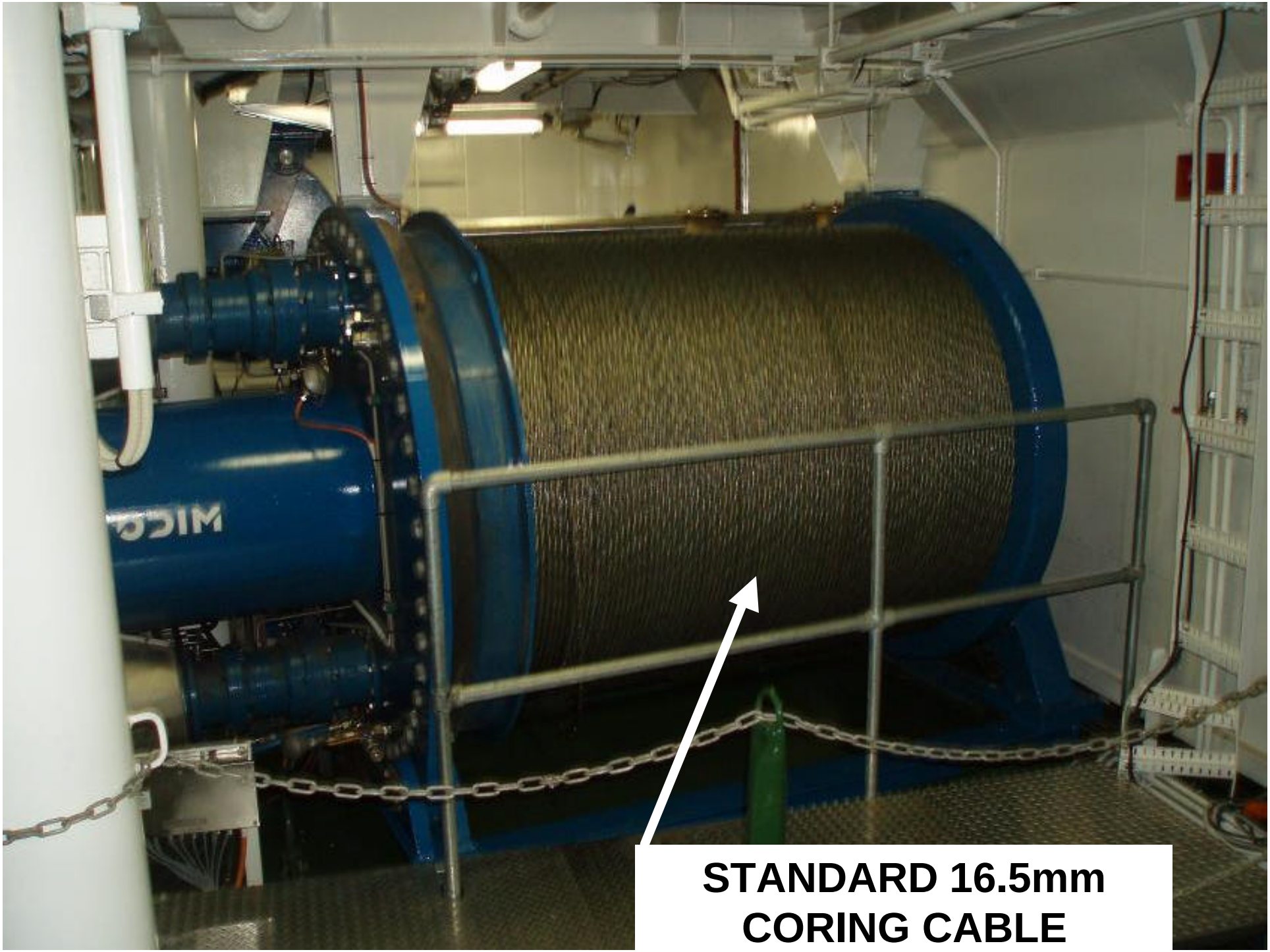
Wires & Warps	
Coring	7000m Steel wire.
Trawling	15000m Tapered wire
Deep Tow	10000m Armoured Electro/Optical
Deep Coring / Lifting	8000m Synthetic (30T).

Wires & Warps (cont)	
Hydrographic (portable)	8000m Steel wire
Standard CTD (2 off)	8000m Armoured Electro/Optical
Deep CTD (portable)	8000m Armoured Electro/Optical

Winch Room

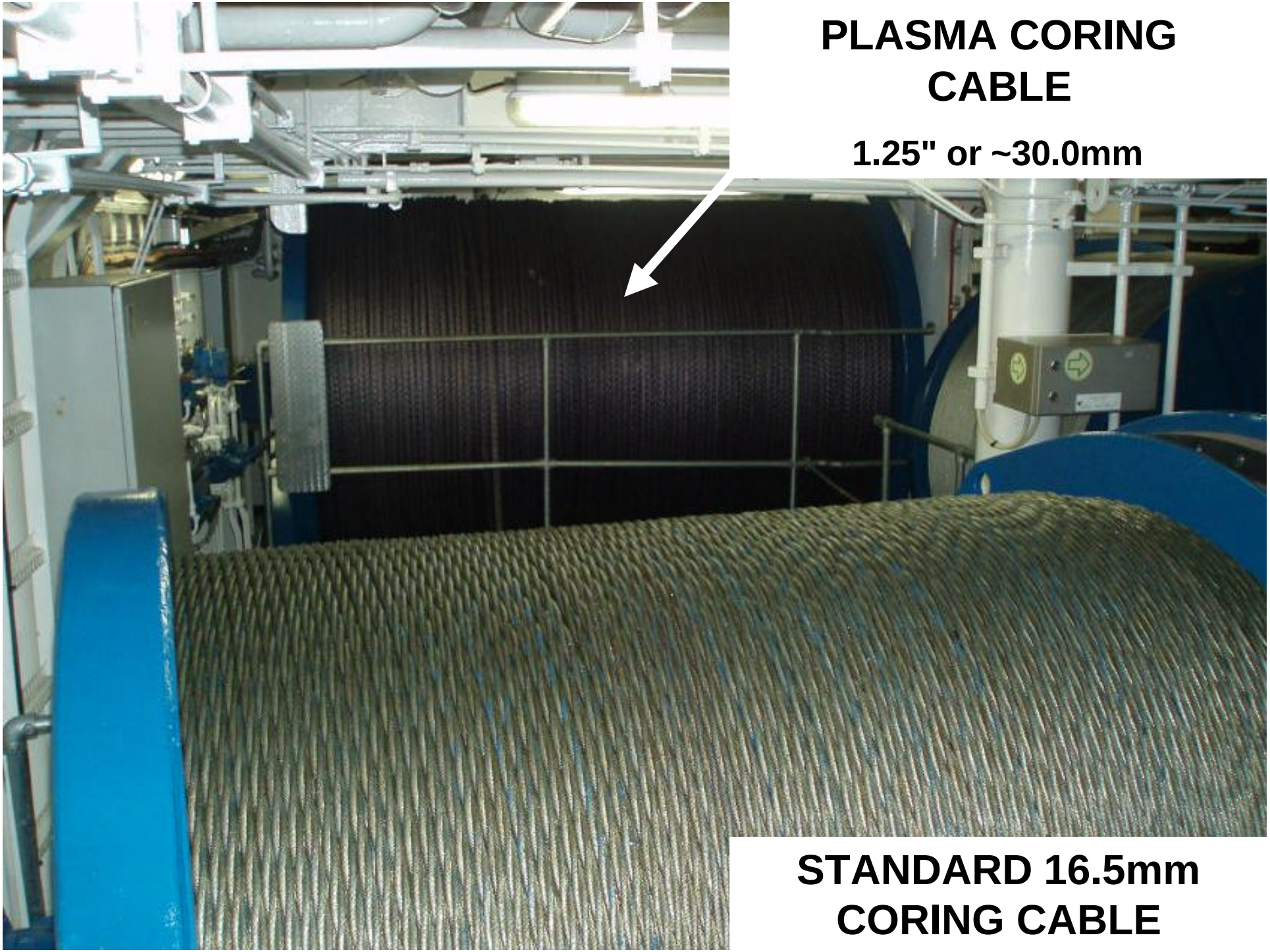


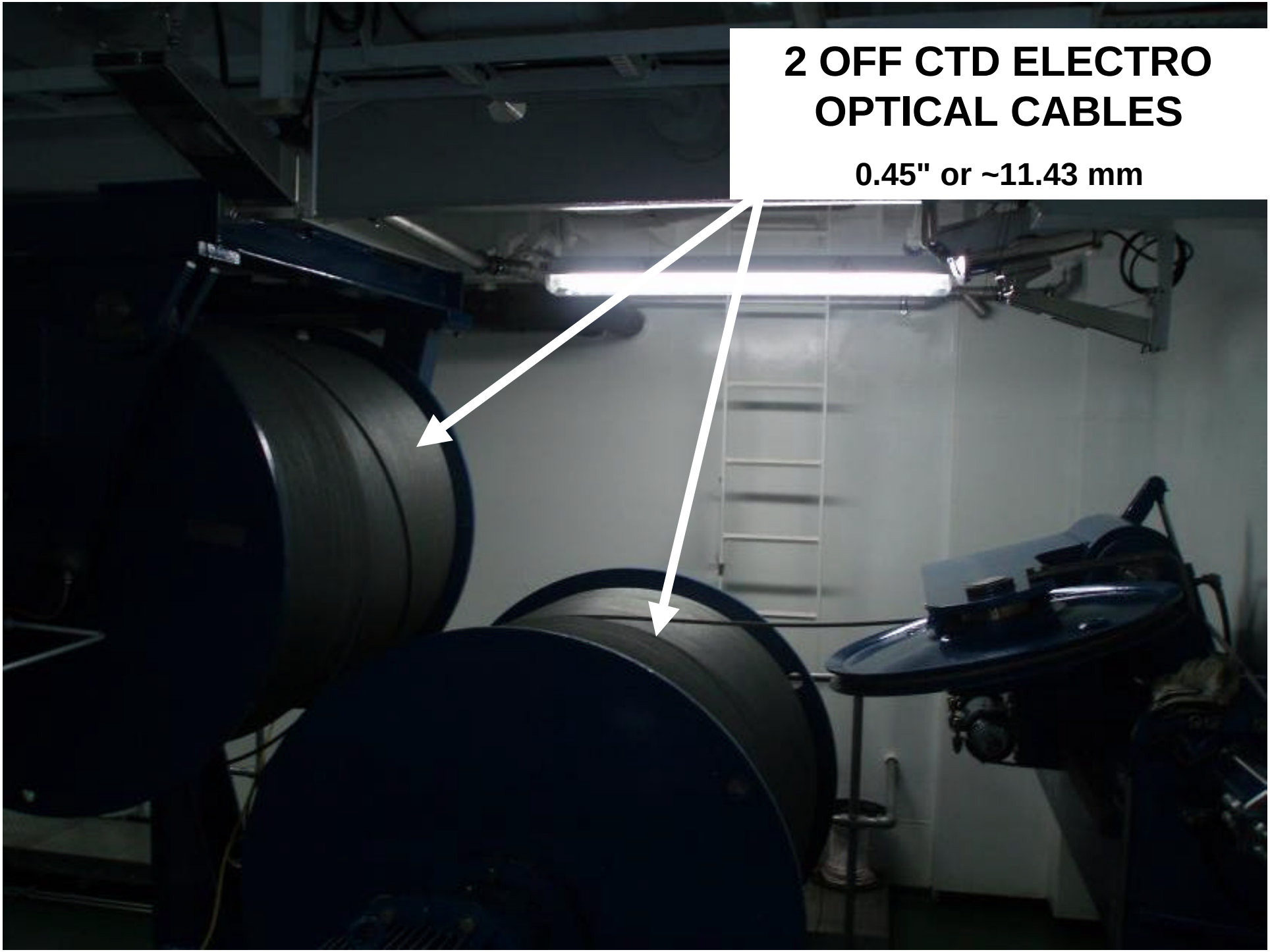

CTD TRACTION UNIT
TAPERED TRAWL WIRE


STANDARD 16.5mm
CORING CABLE

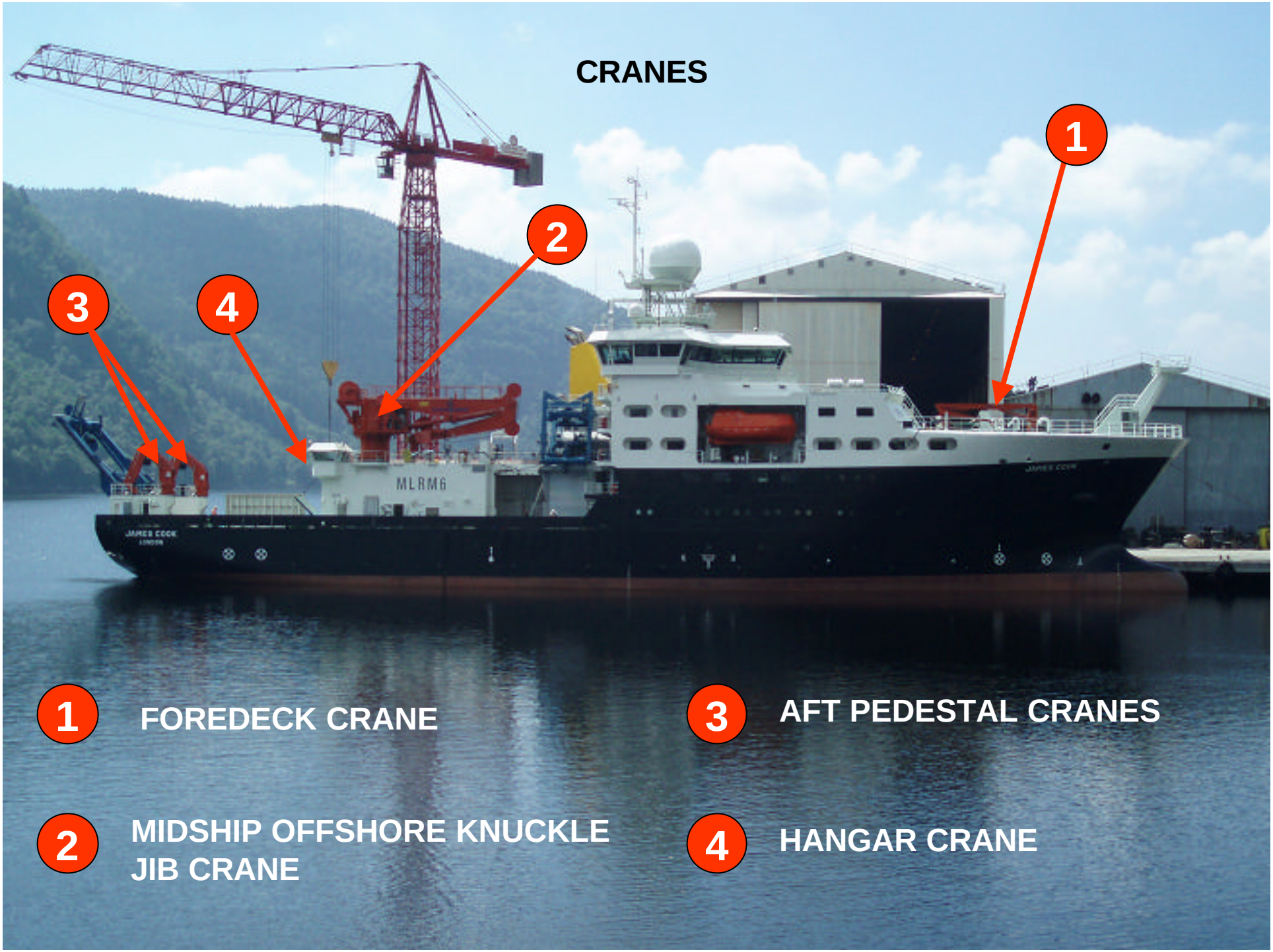
DEEP TOW ELECTRO OPTICAL CABLE

0.68" or ~17.3 mm


PLASMA CORING CABLE
1.25" or ~30.0mm
STANDARD 16.5mm CORING CABLE


2 OFF CTD ELECTRO OPTICAL CABLES
0.45" or ~11.43 mm

CRANES



1 FOREDECK CRANE

2 MIDSHIP OFFSHORE KNUCKLE JIB CRANE

3 AFT PEDESTAL CRANES

4 HANGAR CRANE

FLEKKEFJORD / KVINA

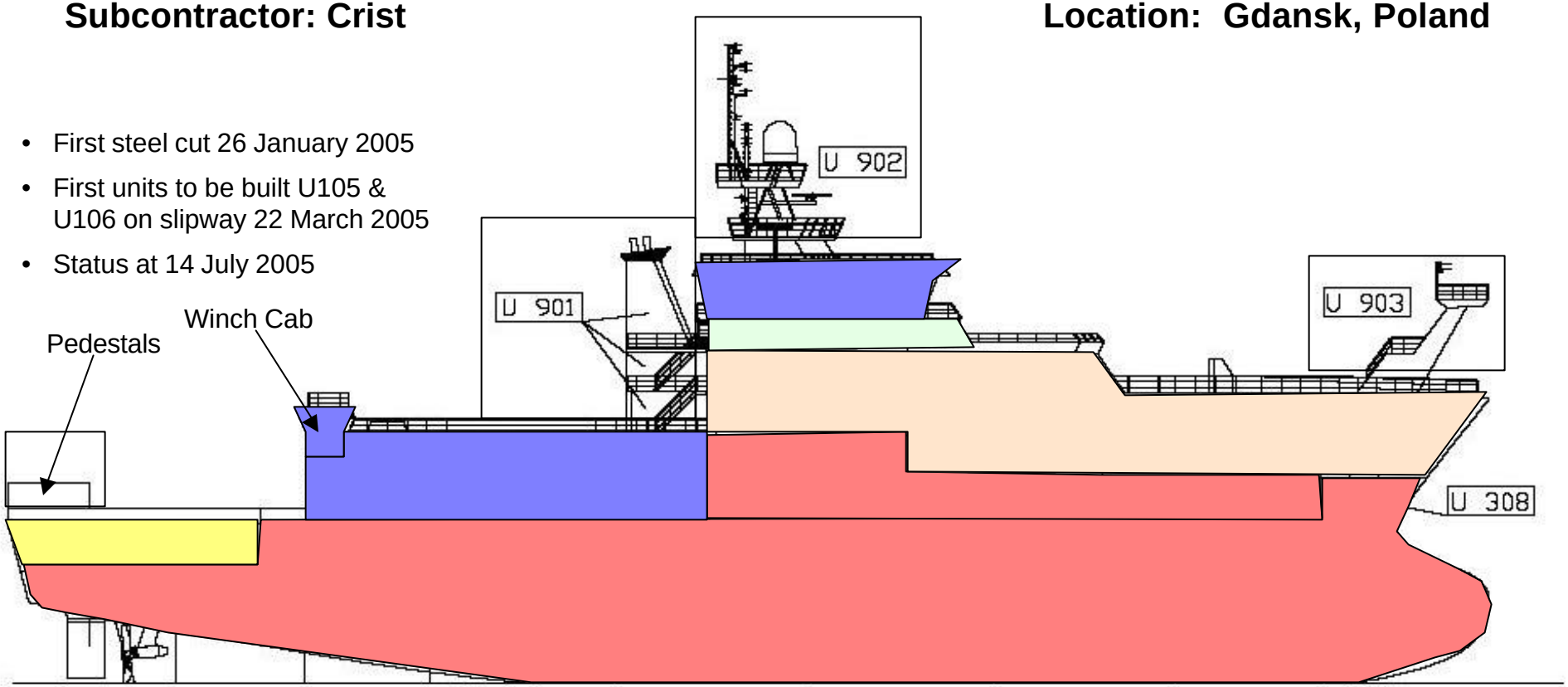
GDANSK, POLAND 3 DAYS

1.5 hours from Stavanger. Population 5500, noted for having virtually no tidal variation (typically less than 10 cm between high and low tides).

RRS JAMES COOK – Progress with the hull construction

Subcontractor: Crist **Location: Gdansk, Poland**

- First steel cut 26 January 2005
- First units to be built U105 & U106 on slipway 22 March 2005
- Status at 14 July 2005



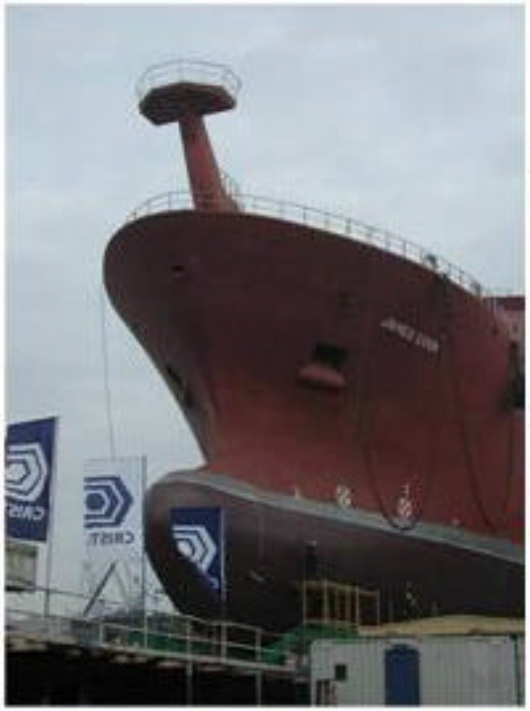
Units on slipway

Under construction

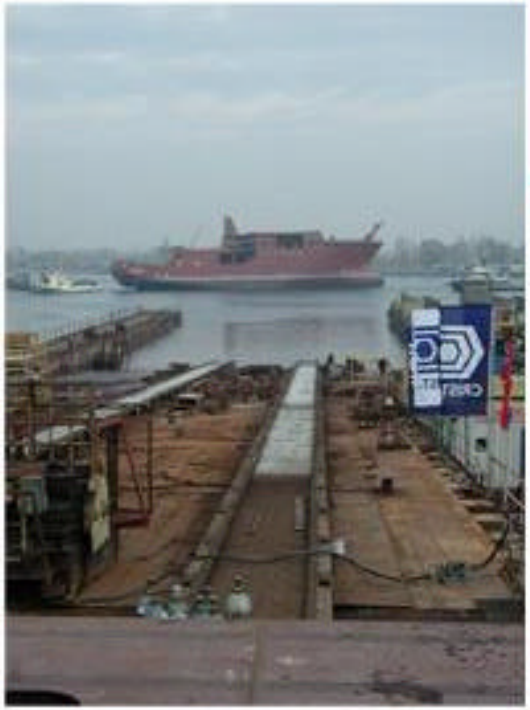
Drawings under development / required

Units blasted and painted

Units drawings complete prior to cutting data



4th November 2005
Stocznia Gdanska, Poland
RRS James Cook Hull Launch



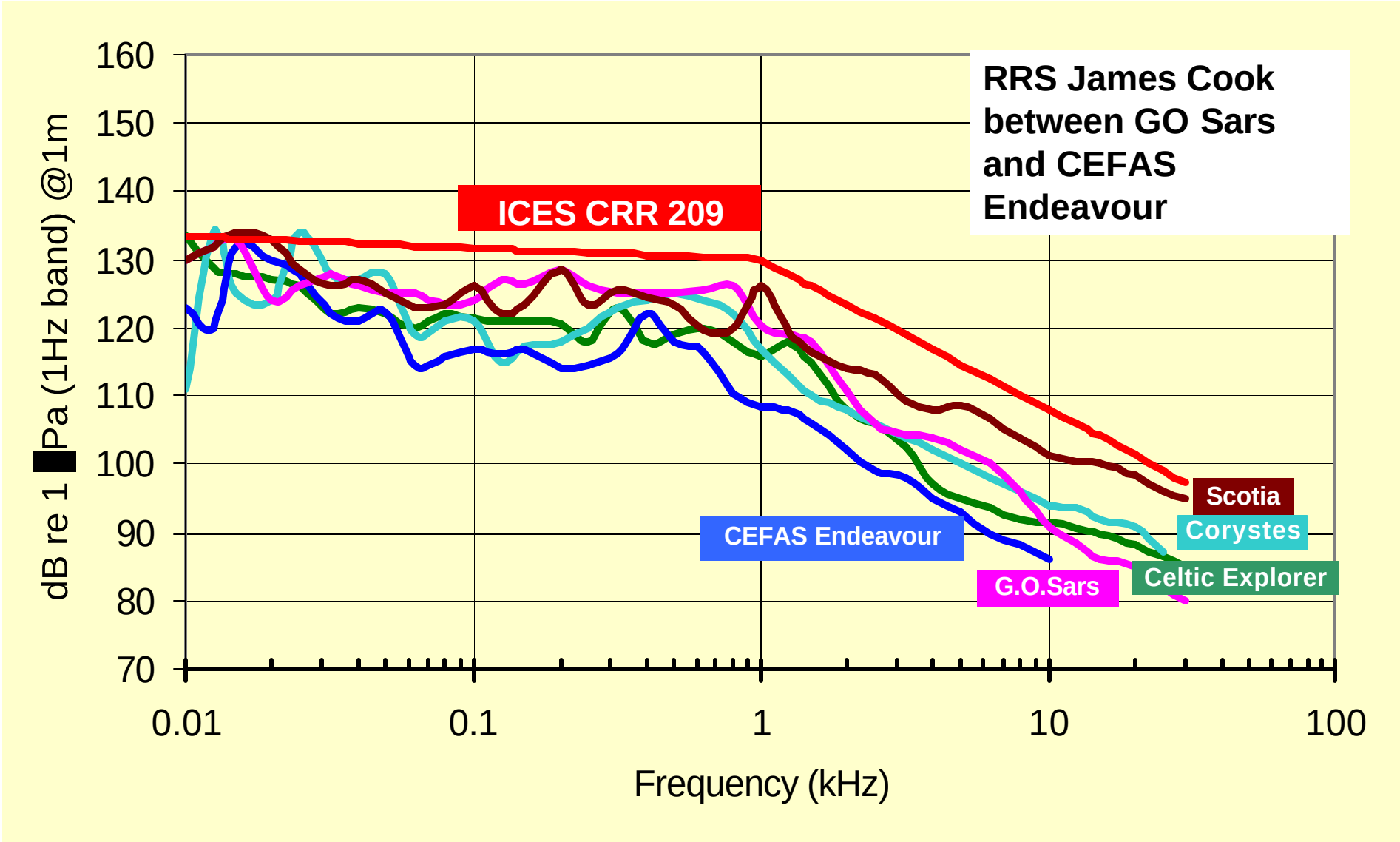

JAMES COOK
17 November 2005

18 January 2006 – Port & Starboard Propellers Installed


23 March 2006

5 July 06 – On the Sound Range

Results from noise-reduced ships




JAMES COOK
MLRM
28th August 2006

28th August 2006

Deck Lab. looking forward

Scientific Control Area looking aft into Main Lab.

Main Lab looking aft.

Water Sampling Laboratory

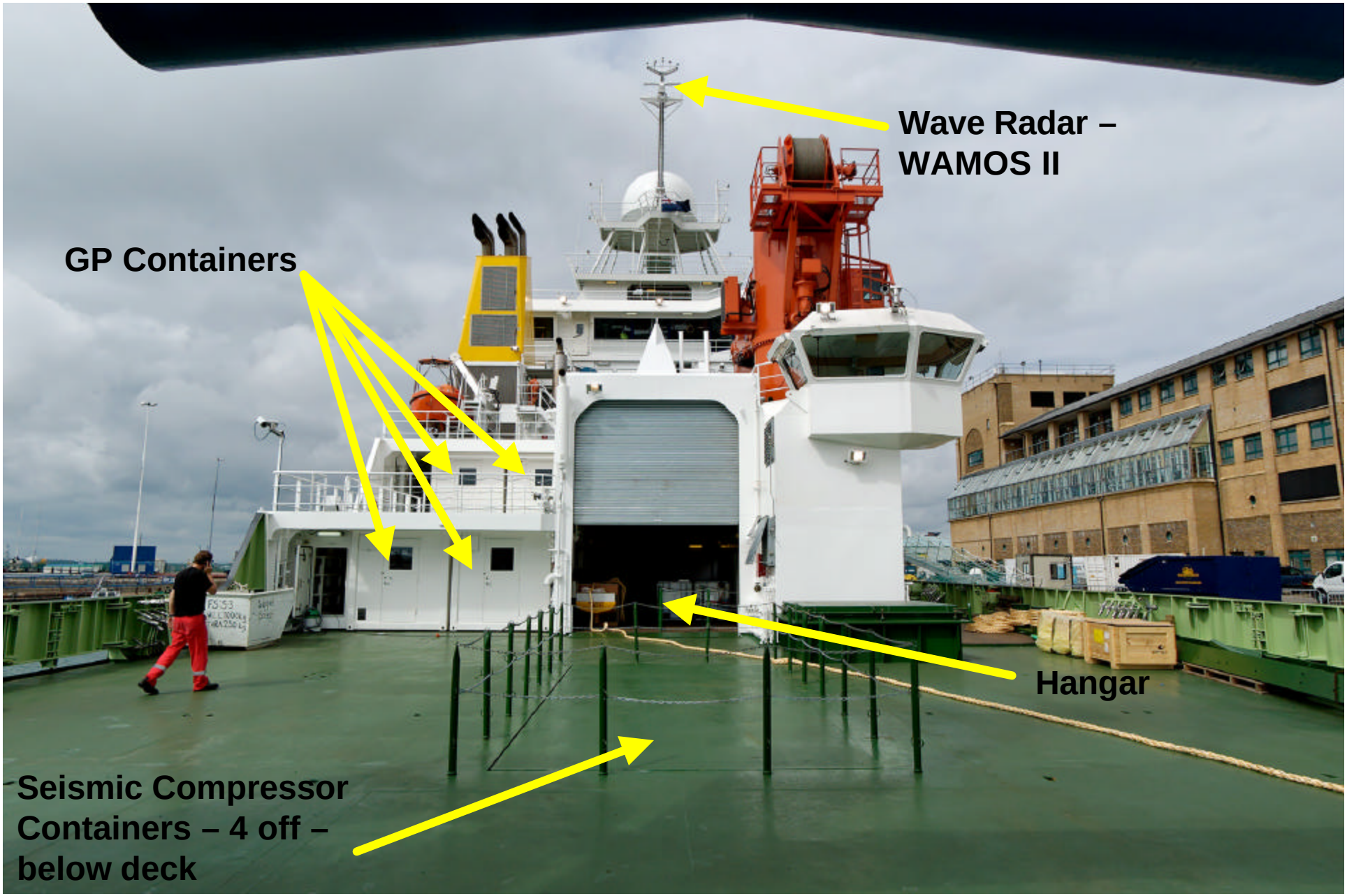
Conference Room

Generator Room

Wheelhouse Starboard looking to Port

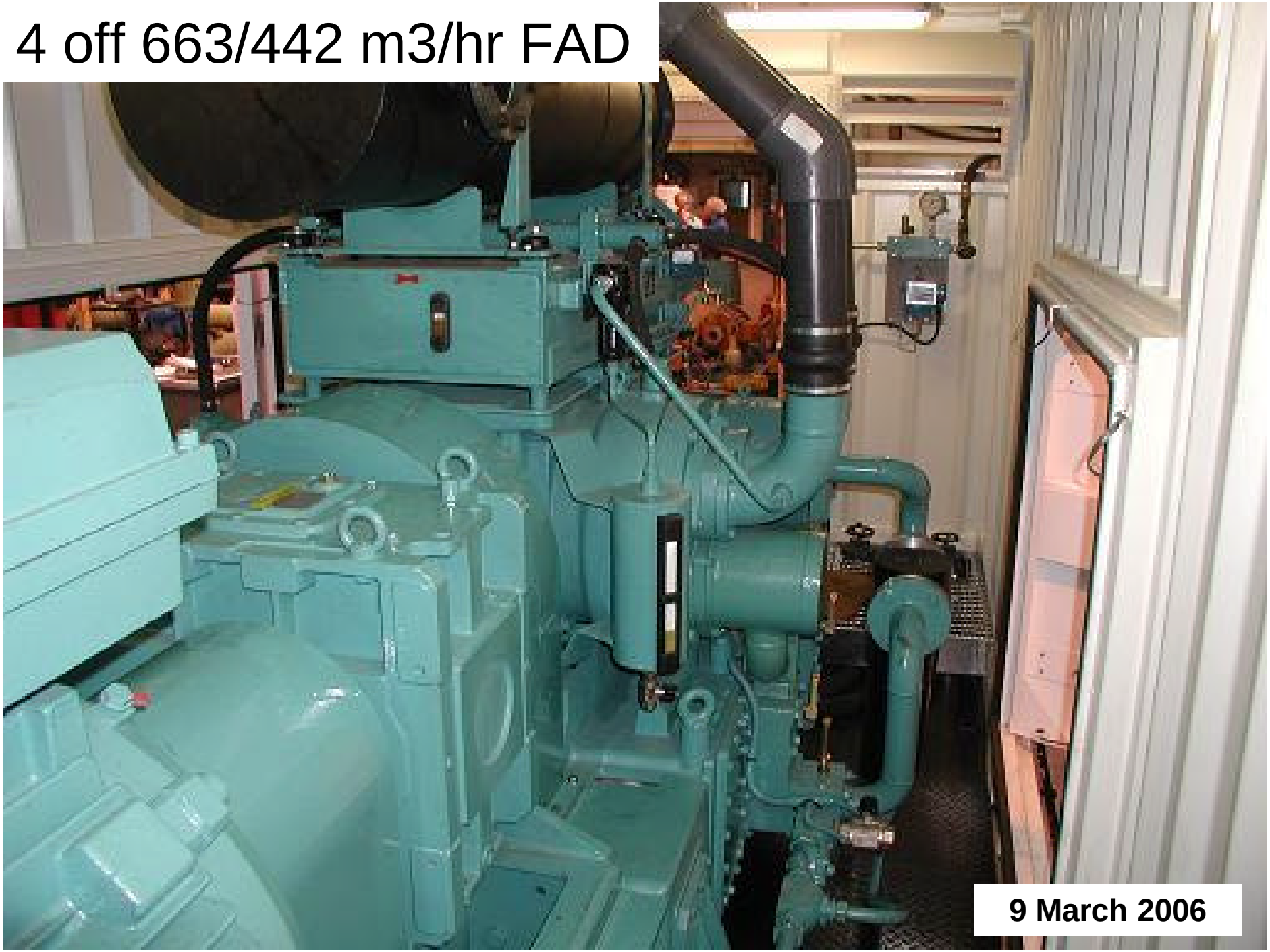
Wheelhouse Console

Aft Deck

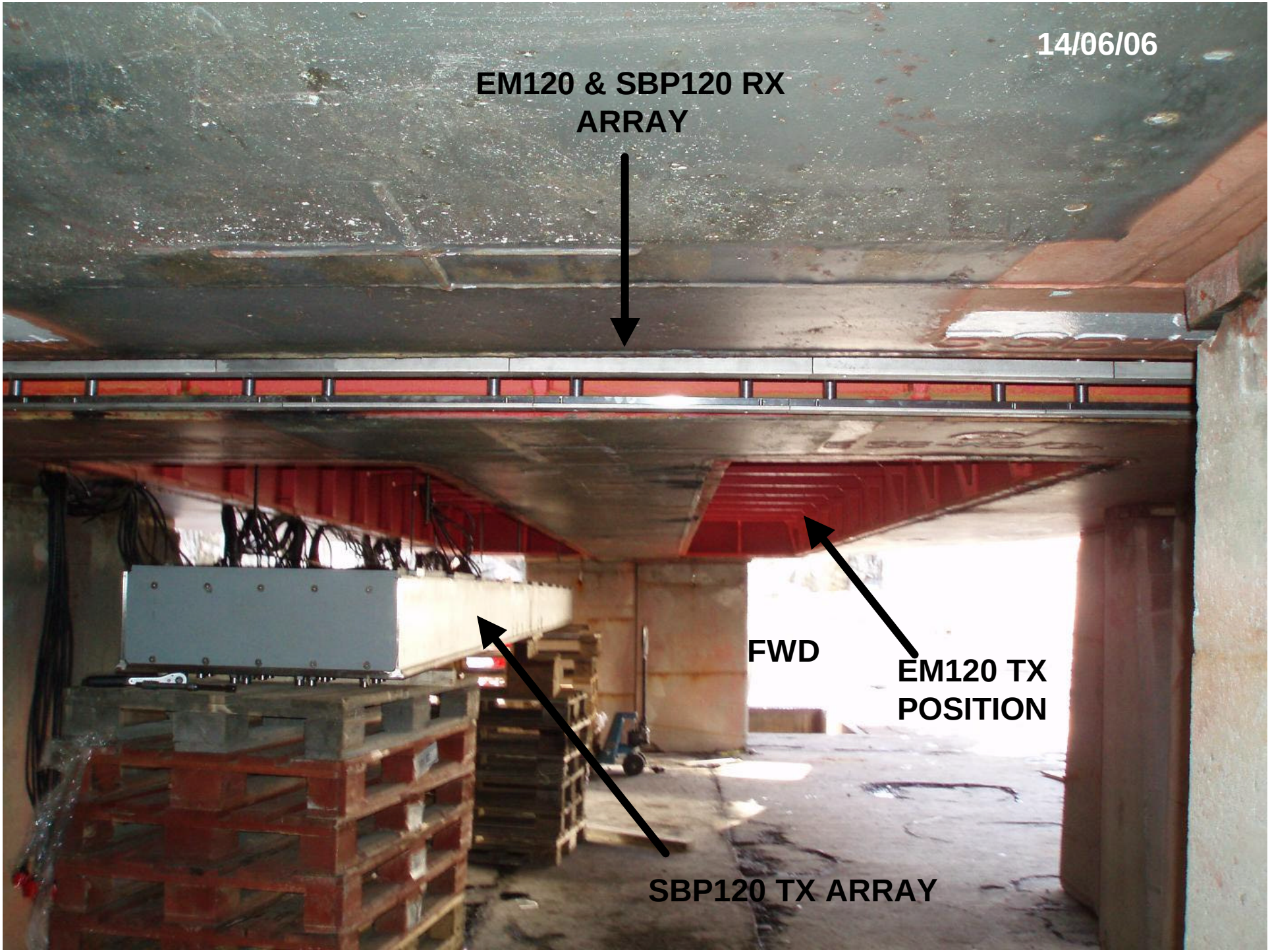

Wave Radar –
WAMOS II
GP Containers
Hangar
Seismic Compressor
Containers – 4 off –
below deck

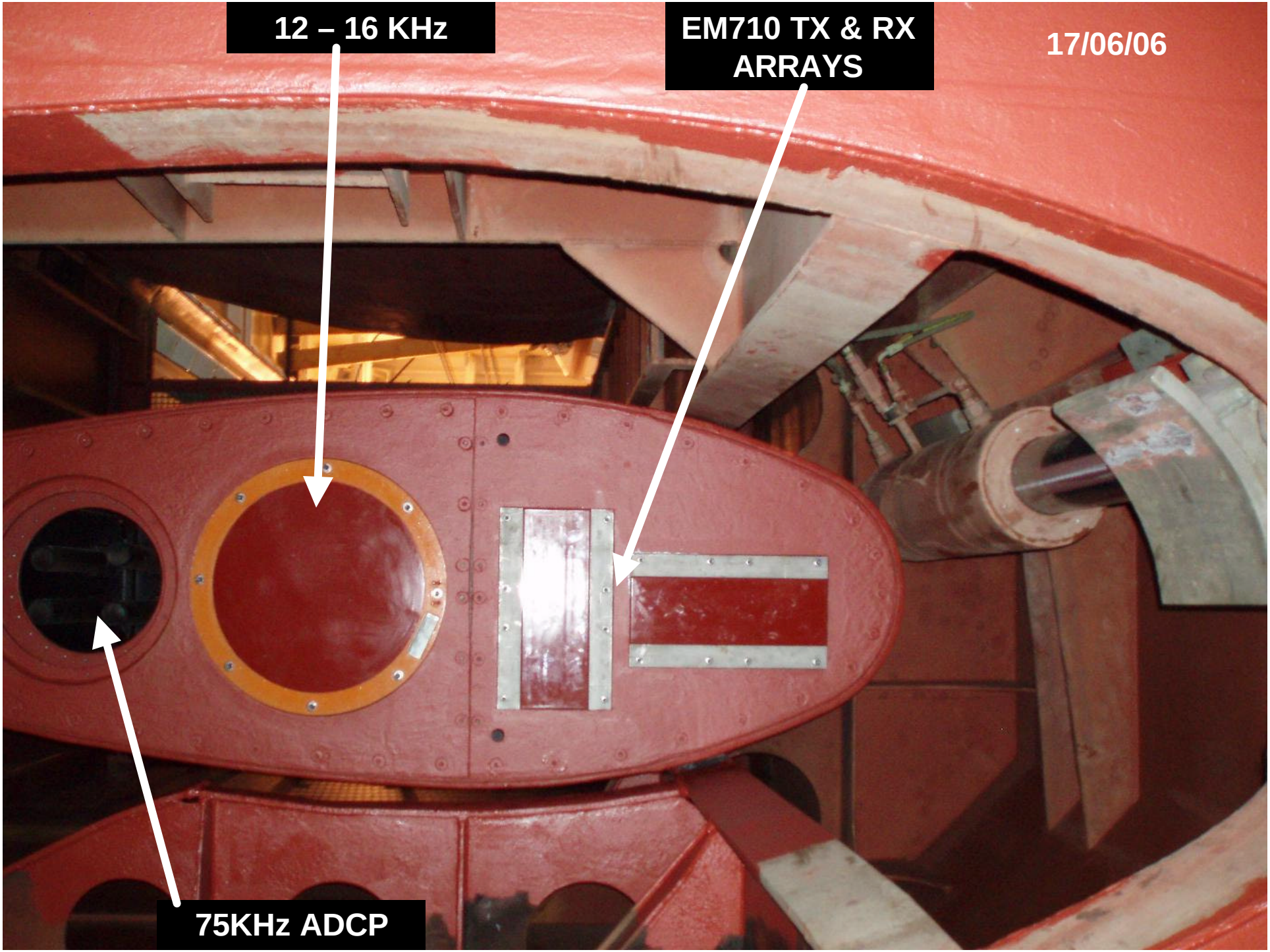
Seismic Container

4 off 663/442 m3/hr FAD

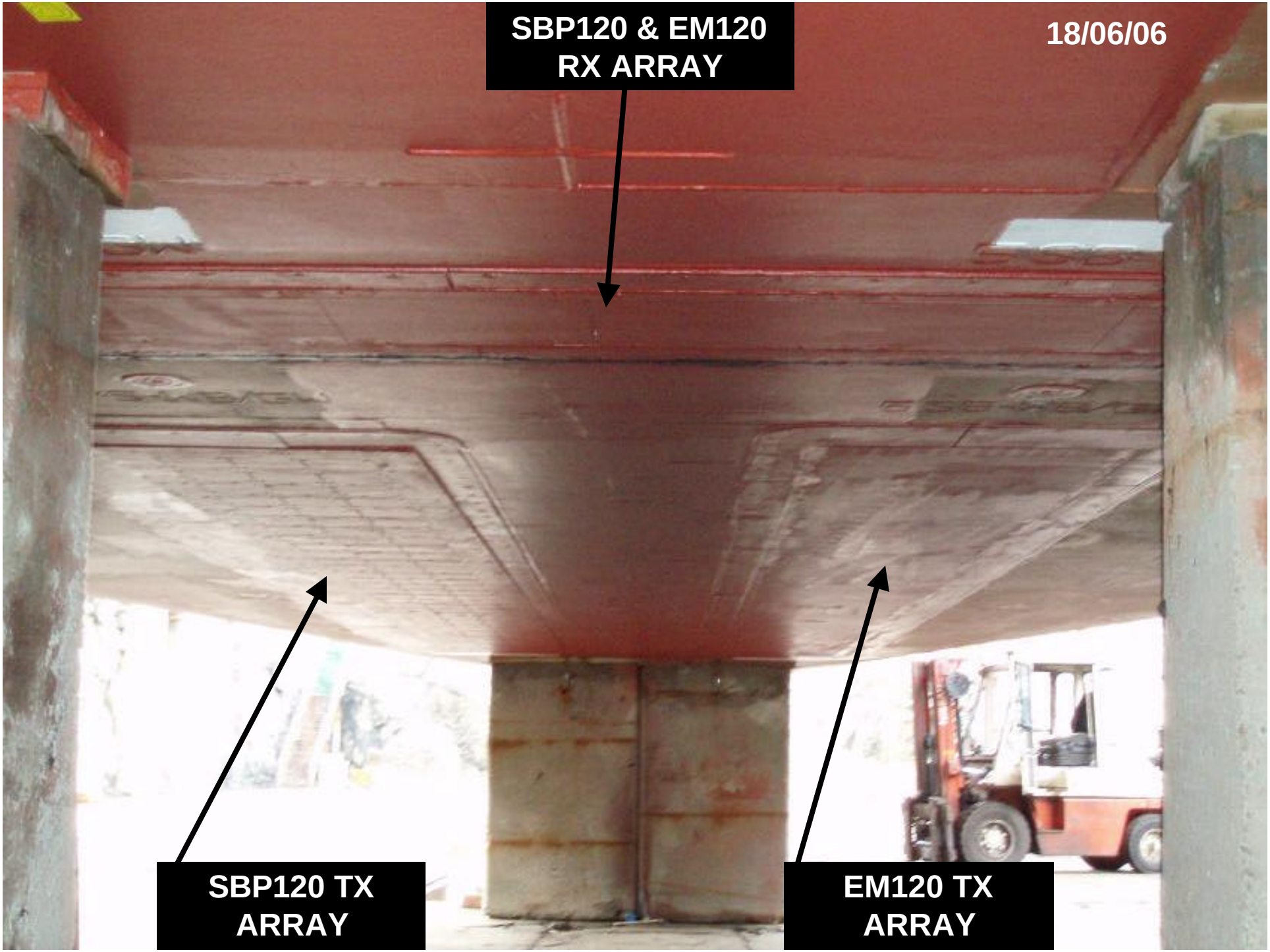


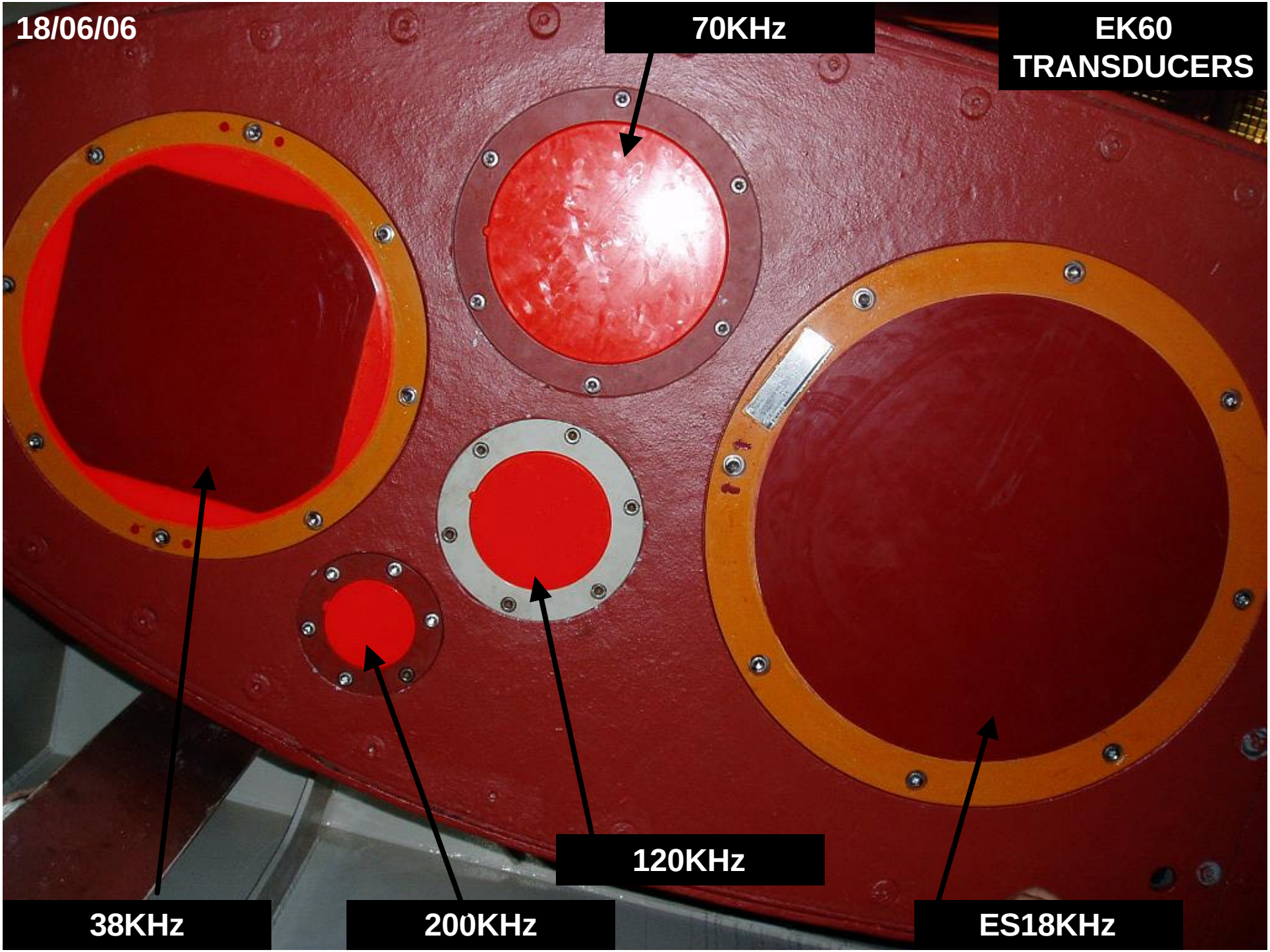

USBL Spar 15/6/06


14/06/06
EM120 & SBP120 RX ARRAY
FWD
EM120 TX POSITION
SBP120 TX ARRAY


12 – 16 KHz
EM710 TX & RX ARRAYS
17/06/06
75KHz ADCP

18/06/06


SBP120 & EM120
RX ARRAY
18/06/06
SBP120 TX
ARRAY
EM120 TX
ARRAY


18/06/06
70KHz
EK60
TRANSDUCERS
38KHz
200KHz
120KHz
ES18KHz

Servery

Communal Mess

Lounge


MLRM6
JAMES COOK
LONDON


http://www.nerc.ac.uk/funding/marineplan/jcp_intro.asp
cdrp@noc.soton.ac.uk or ebc@noc.soton.ac.uk
A Nice Day