





Submersible and submersible safety.

Stig Vågenes. Subsea Manager
Stig.vagenes@revocean.org

Leighton Rolley. Science Systems Manager
Leighton.rolley@revocean.org

REV *Ocean*

The initiative was started as a result of Mr. Røkke signing the Giving Pledge in 2017, vowing to donate more than 50% of his fortune to philanthropic causes.



Kjell Inge Røkke

REV *Ocean*

REV Ocean: not-for-profit
Norwegian organization (2017).

Goal: One healthy ocean.

Vision: from curiosity, to
understanding, to solutions



Nina Jensen & Kjell Inge Røkke



194.9m
LENGTH

22m
BEAM

5.65m
DRAUGHT

38m
AIR DRAUGHT

19,018
GRT

13 MW
POWER

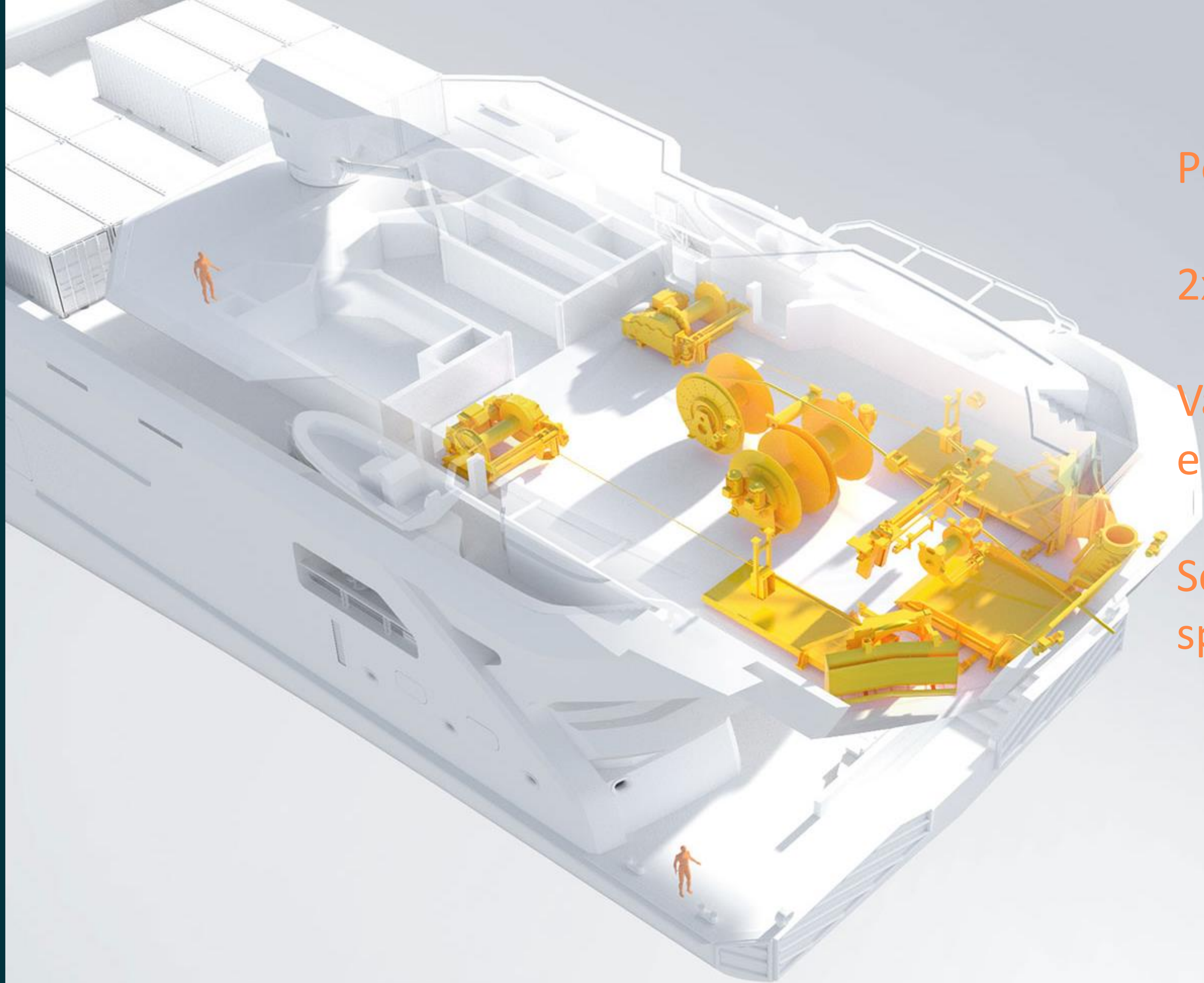


Airbus H145D3 2+8 seat helicopter.

Twin helicopter decks.

Hangar under forward helideck.





Pelagic aft trawl net system

2x35 T winches – 3000 m wire

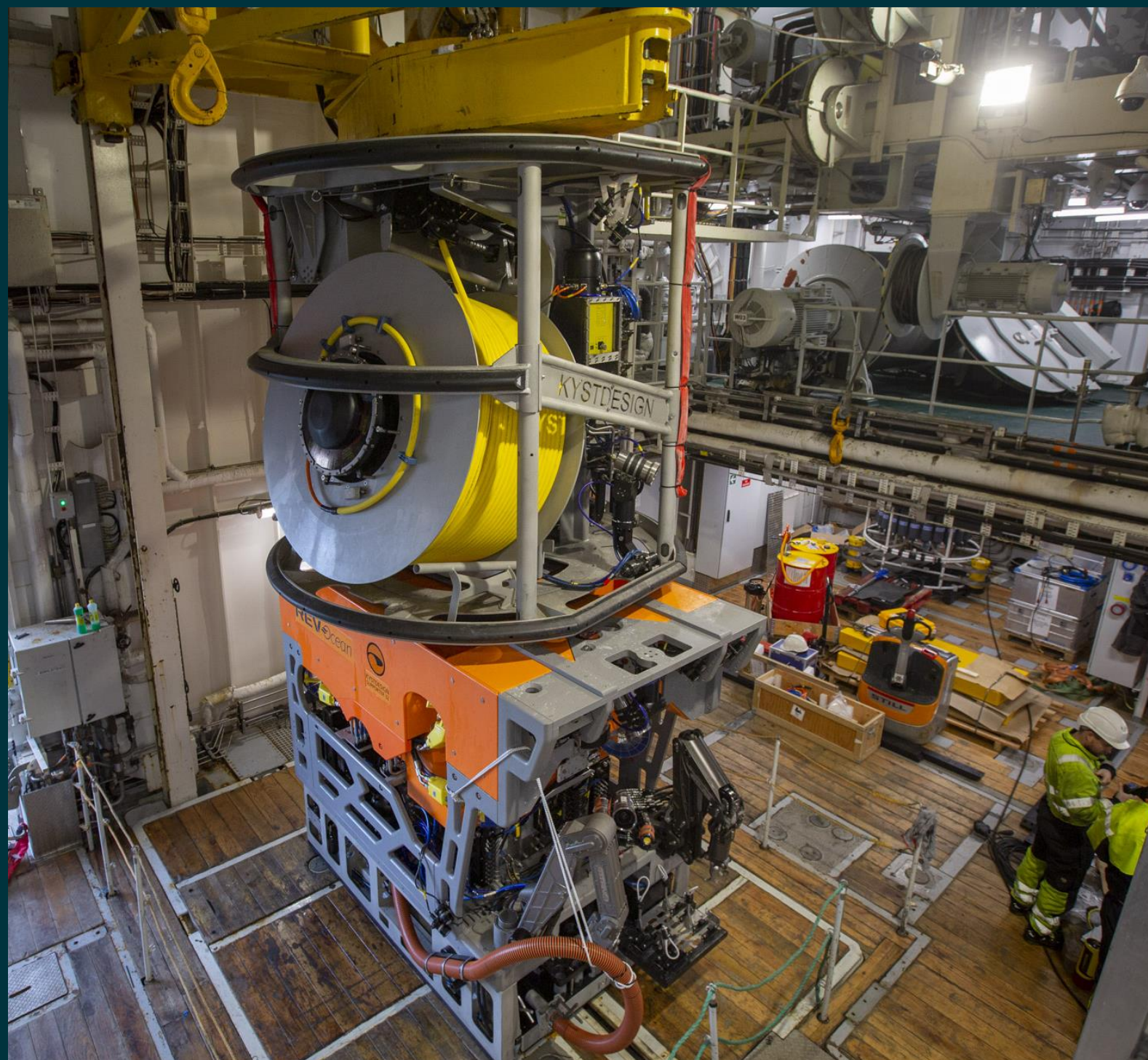
Vacuum suction hose from the trawl end directly into the wet lab

Scantrol Deep Vision AI digital species identification system

<u>Multibeam</u>	<u>Fisheries</u>	<u>Geo</u>	<u>Physical</u>	<u>Tracking</u>	<u>Navigation</u>
EM304	EK80 (18,38,70,120,200)	TOPAS (1-10kHz)	ADCP 38kHz	HiPAP 102	Seapath 380 x 2
EM712	SU90 (20-30kHz)	SBP29 (2-9kHz)	ADCP 150 kHz	HiPAP 502	Furuno Seastar 3710
	ME70 (70-120kHz)				
	MS70 (70-120kHz)				
	SC90 (82-86kHz)				



Aurora Kystdesign Supporter 32



Kongsberg Hugin Superior 6000 m

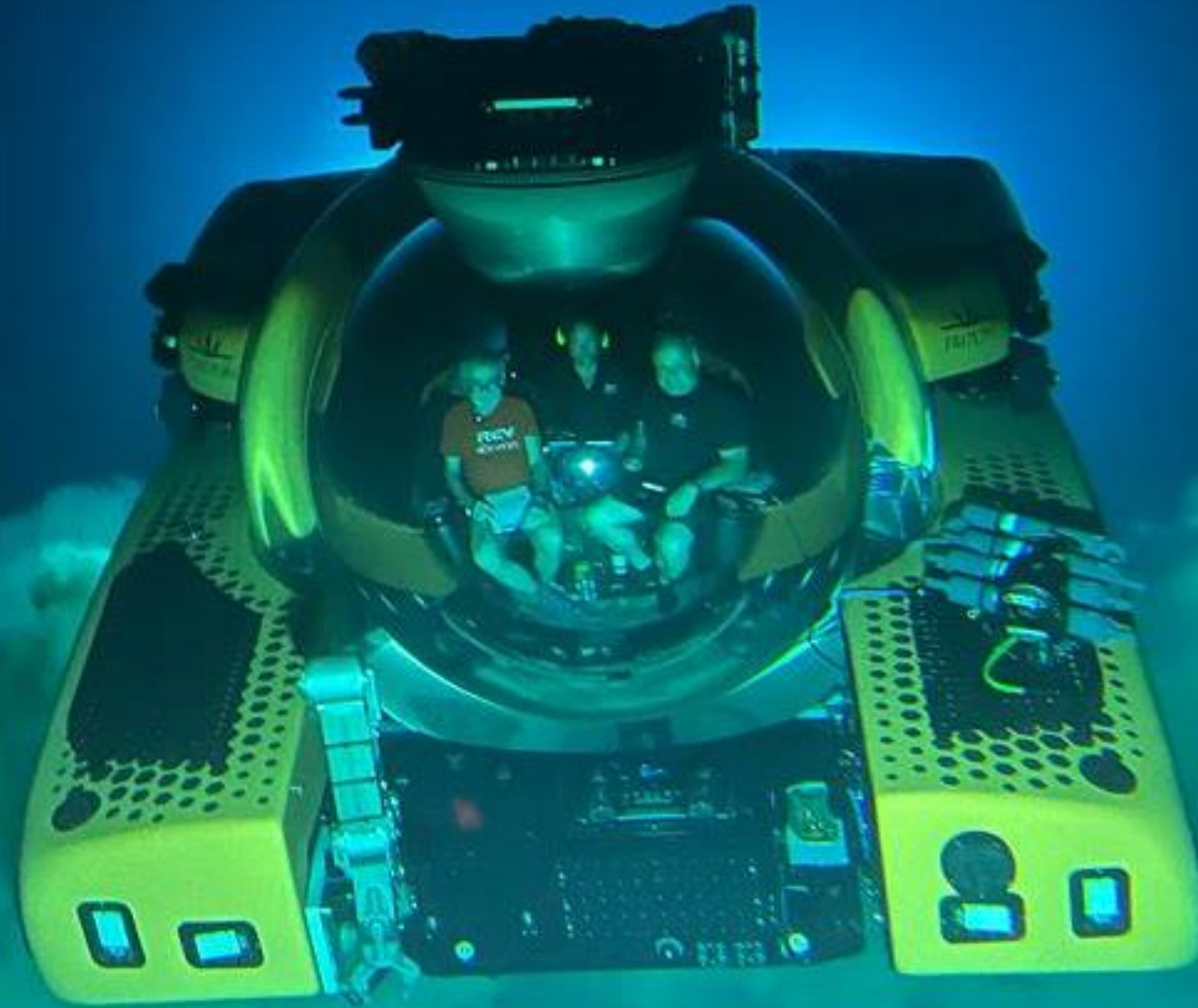




USV
TBD!



DSV AURELIA (Triton 7K3)



ROV / AUV/ USV Control Room



- 2 X Stereo

- 1 x Downward HD Camera

- Niskin Bottles

- M3 Sonar

- Schilling T4

- Bio Box

- Suction Sampler

- 6 x Cores

- CTD Sensor

- Platforms and mounting matrix

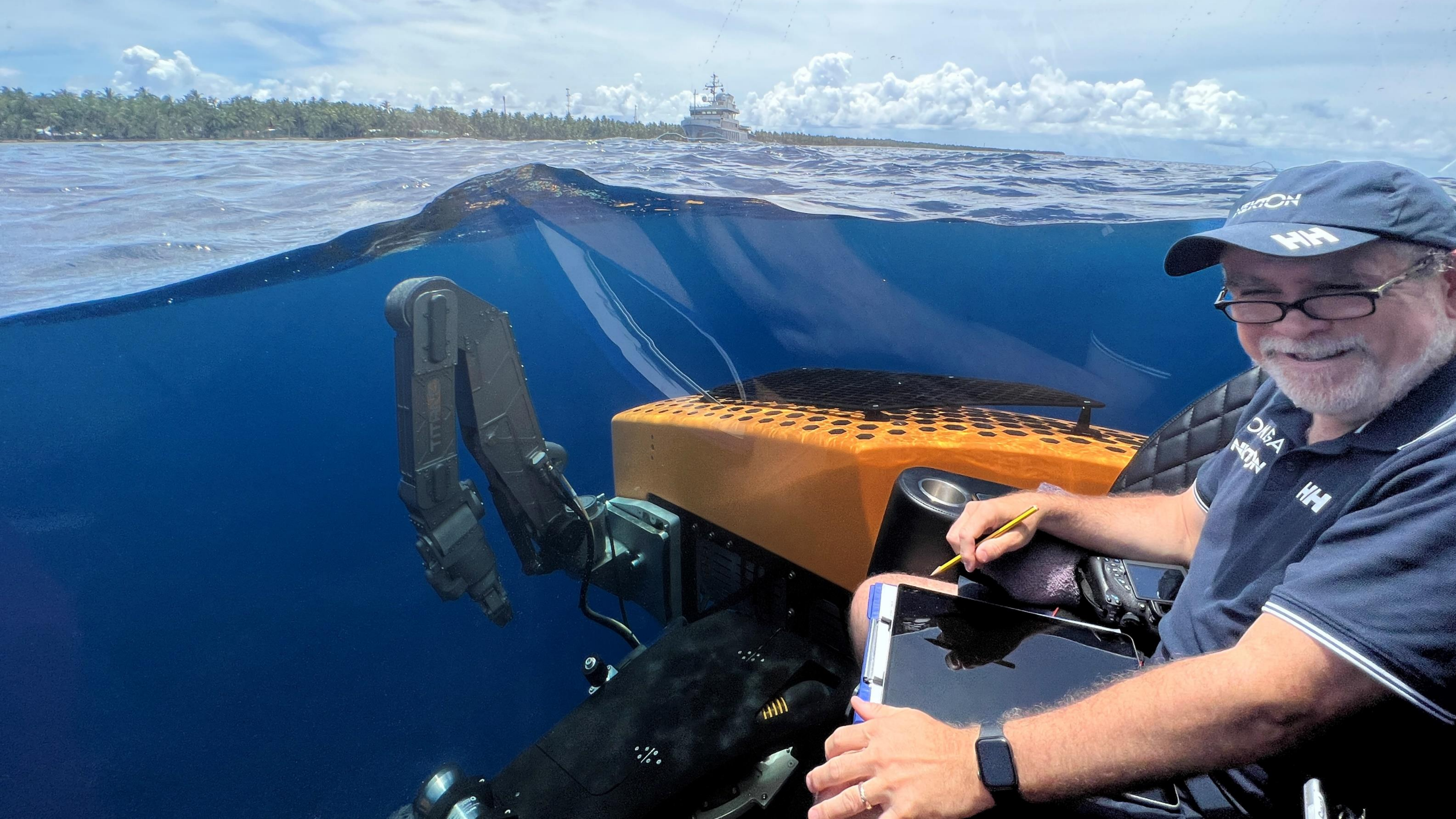


DSV Aurelia



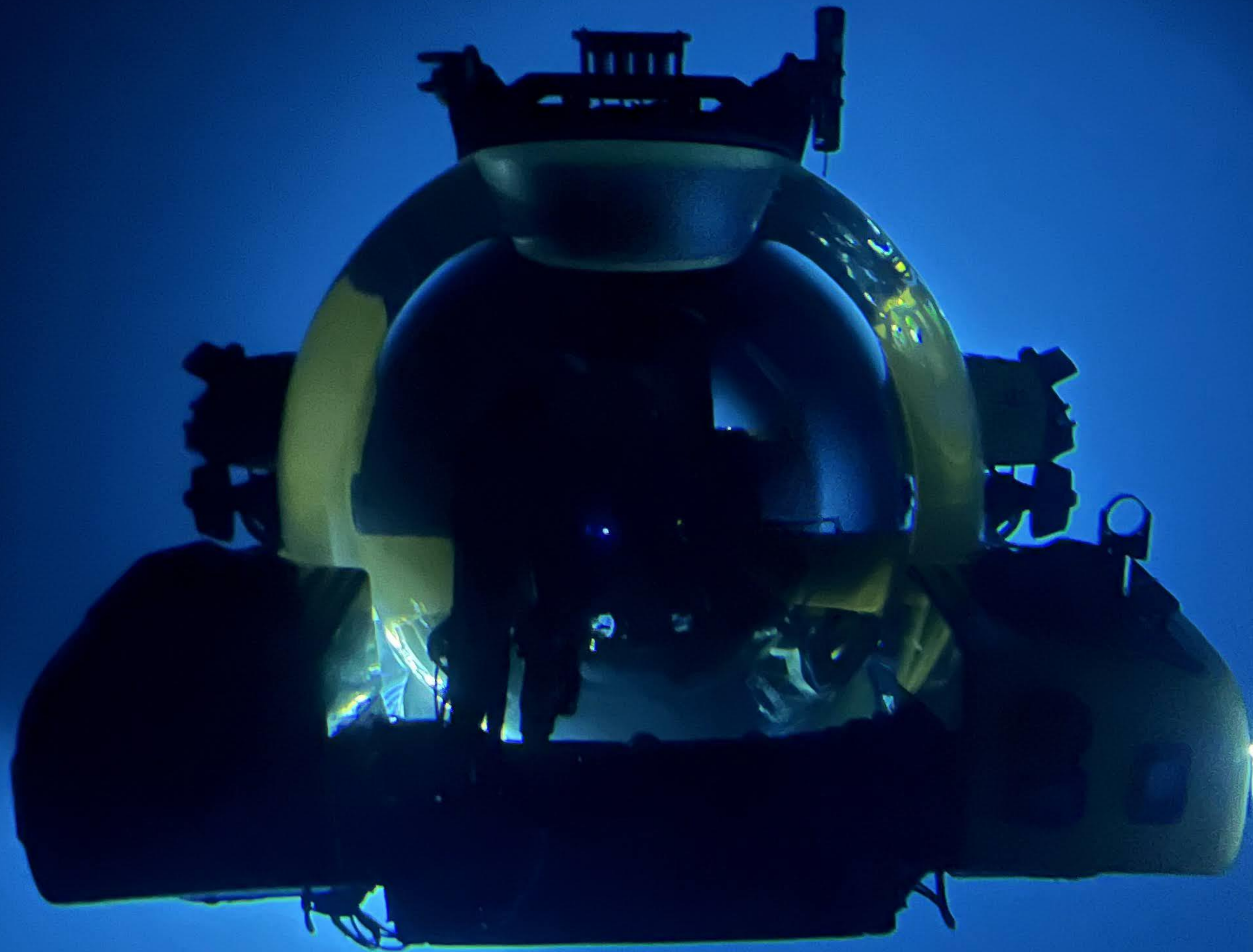
www.heinz-fritz.de













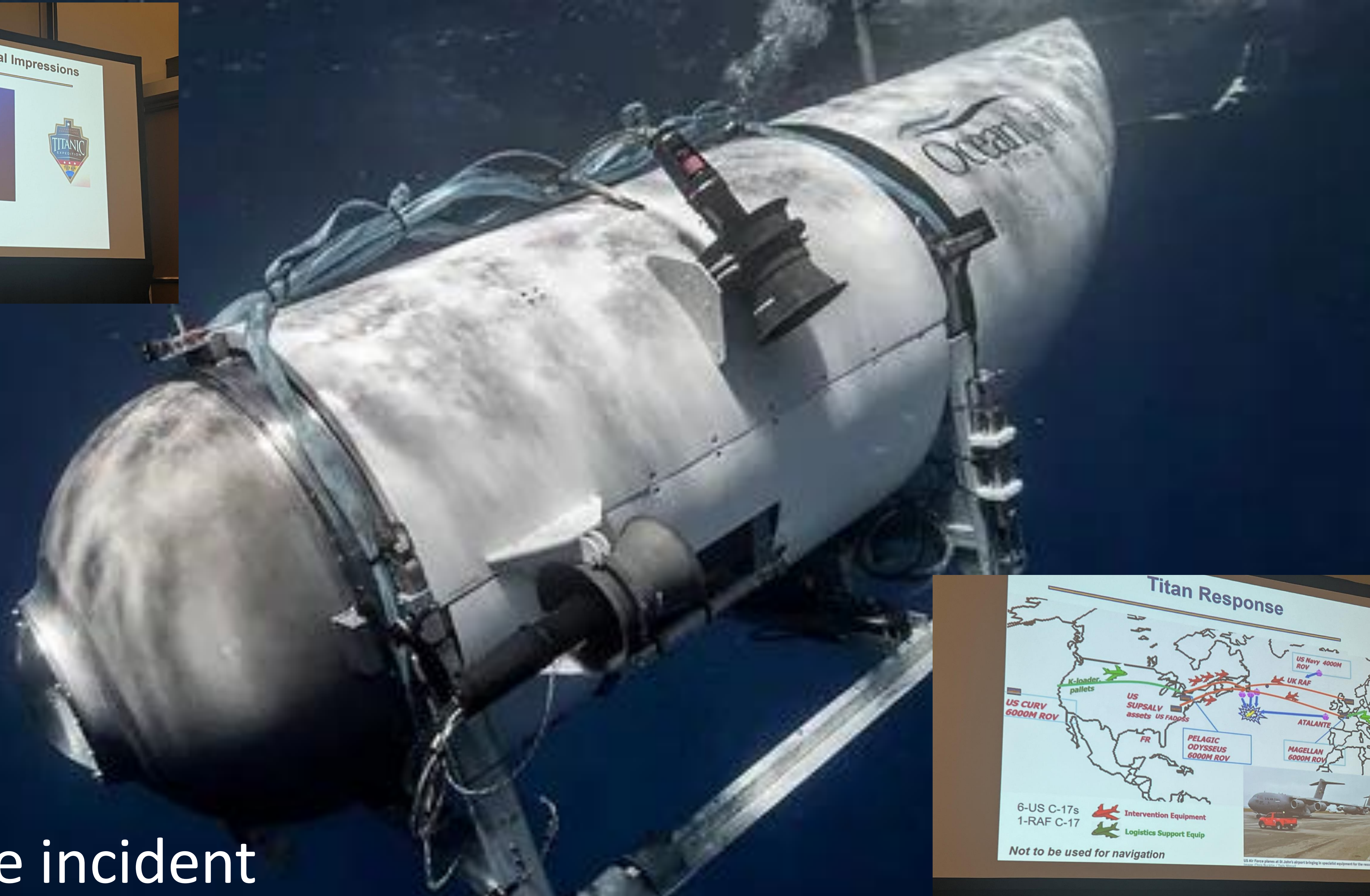


Time	Depth	Speed	Altitude	Heading	Roll	Yaw	Pitch
00:19:00	100	0.5	100.0	215	000	20.9	0.20

System	Part A	Part B	Part C	Part D	Part E
Hydraulic System					
External Lights					
Port VBT					
Starboard VBT					



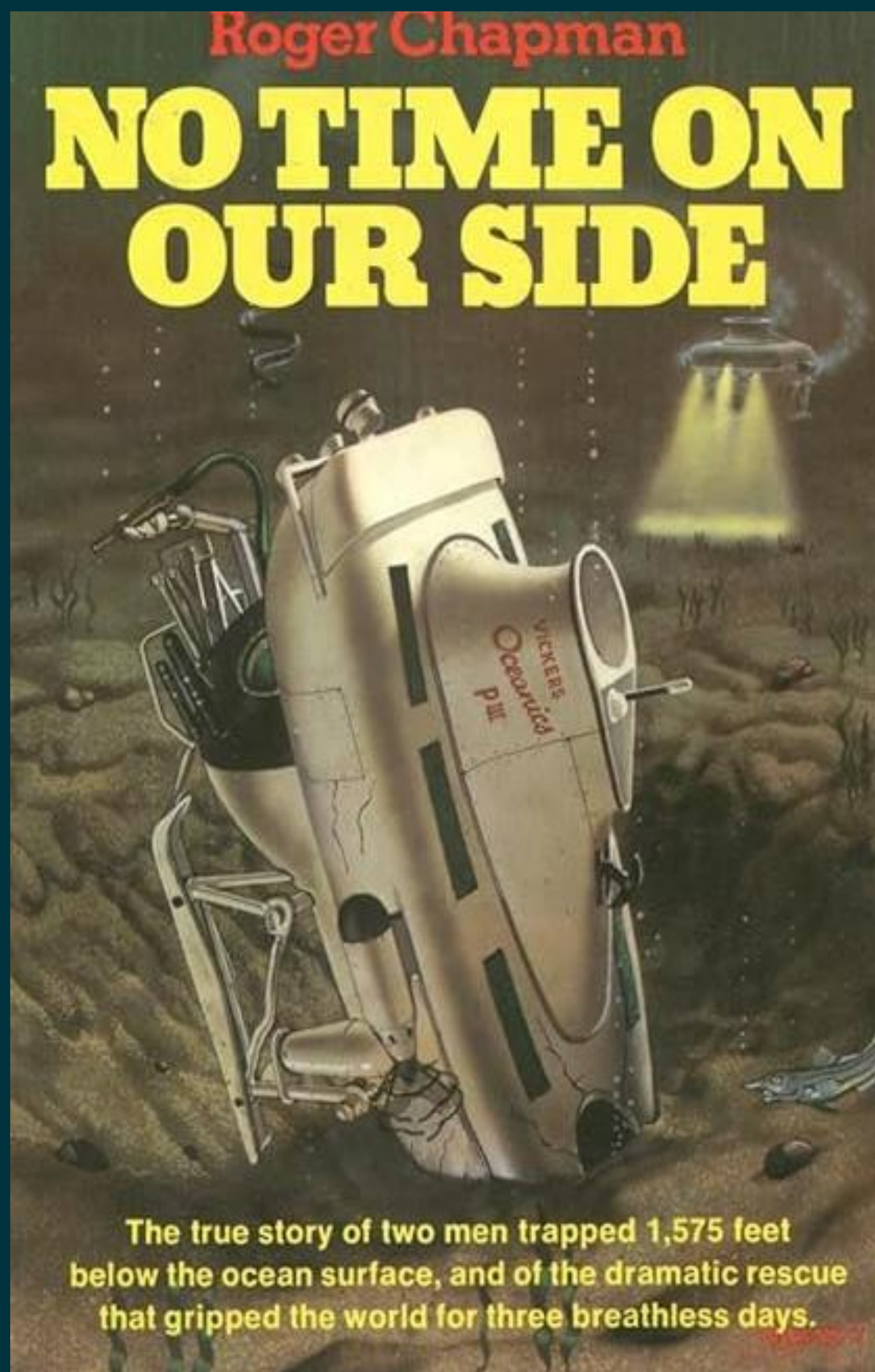
Titan Response Initial Impressions



2023

A single incident





September 1973



June 1973

Safety

- Class inspection as all stages of the design and build
- Operation & maintenance are covered by various regulations (UK, Bahamas, US etc)
- Pressure tested to 2200m + 15% (2530m). Crush depth approx. 6000m
- Standard dive 6-8hrs
- Safety briefings
- Life Support for 96hours
- Ability to eject equipment and weights
- Primary & Secondary USBL inc Modem
- Iridium x 2
- VHF Radio
- UHF Radio
- VHF Locator Beacon
- AIS Beacon
- Risk – ROV vs Sub
- Rescue plan & Rescue Vehicle





Bristol, October 2023
60 attendees representing 30 submersibles





<https://submersibleoperators.com/>