



Update on NIOZ operations

New build update; farewell to *RV Pelagia*; over NIOZ – MFP

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Science coordinator

National Marine Facilities (NMF) NIOZ

RVOC 2025, online

Delaware, the USA



Renewal of the Dutch Research fleet

RV Stern

RV Navicula

RV Pelagia



RV Adriaen Coenen

In operation since August 2022



RV Wim Wolff

In operation since June 2024



RV Anna Weber-van Bosse

Planned delivery by the end of 2025.

RV Adriaen Coenen



Built in Next Gen. Shipyards in the Netherlands

In operation since August 2022

Used for day trips, small expeditions in the inland waters of the Netherlands

Specifications

- Length overall: 19 m
 - Beam: 5 m
 - Draught: 0.8 m
 - Material: Aluminium
 - Speed: 20 knts
 - Engines: Scania (Stage V)
 - Water jets: Hamilton
-
- Energy during cruising: HVO diesel engines
Anchored/grounded: solar panels and battery pack
Energy backup by a small generator
-
- Crew: 2
 - Max # people: 12
 - Features: A-frame, side frame,
ADCP & Multibeam deployment,
wet lab, dry lab, towing arrangement

RV Wim Wolff



- Built in Thecla Bodewes Shipyards in the Netherlands
- In full operation since June 2024
- Hybrid propulsion and sustainable fuel
- Operational area: coastal sea (within 20nm) and inland waters
- Large deck area
- 6 shared cabins for 12 scientists

RV Wim Wolff



Specifications

- Length: 36 m
 - Beam: 10 m
 - Draught max.: 1.20m
 - Working deck area approx.: ~125m²
 - Max. Speed: 12 knts
 - DP 1
 - 4 crew + 12 passengers
 - dry and wet lab
 - 2 container space on the working deck
 - WASSP
-
- The hybrid diesel-electric system is designed for high redundancy and energy-efficient fuel consumption.
 - The internal combustion Scania (Stage V) engines run on HVO
 - Flat bottom feature allows tidal flat operations.

Technical drawing of the hull structure of the ship 'RENOVA' in profile view. The drawing shows the hull sections and their dimensions. A table of dimensions is provided below the drawing.

Section	Length (mm)
1	13424
2	8400
3	9600
4	9600
5	9600
6	9600
7	9300
8	10468

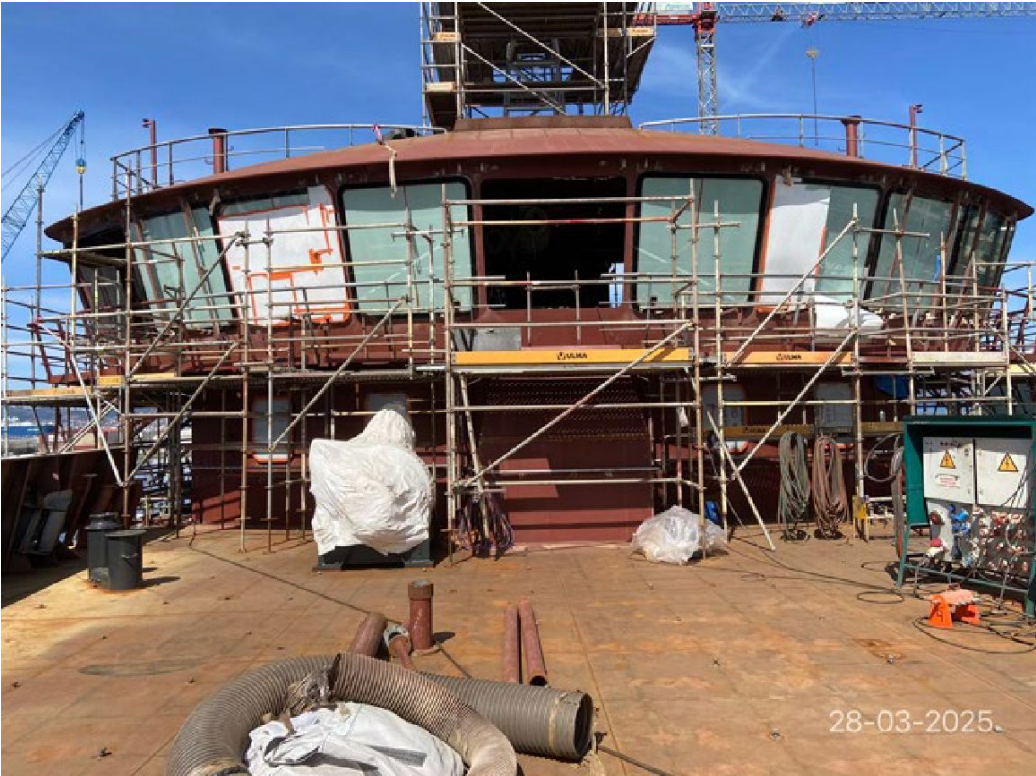


New build updates: *RV Anna Weber-van Bosse*

News RV Anna Weber-van Bosse - NIOZ



27-03-25



28-03-2025.

Delivery

Autumn 2025

Science trials

Spring Summer 2026

Full Operation

Autumn 2026

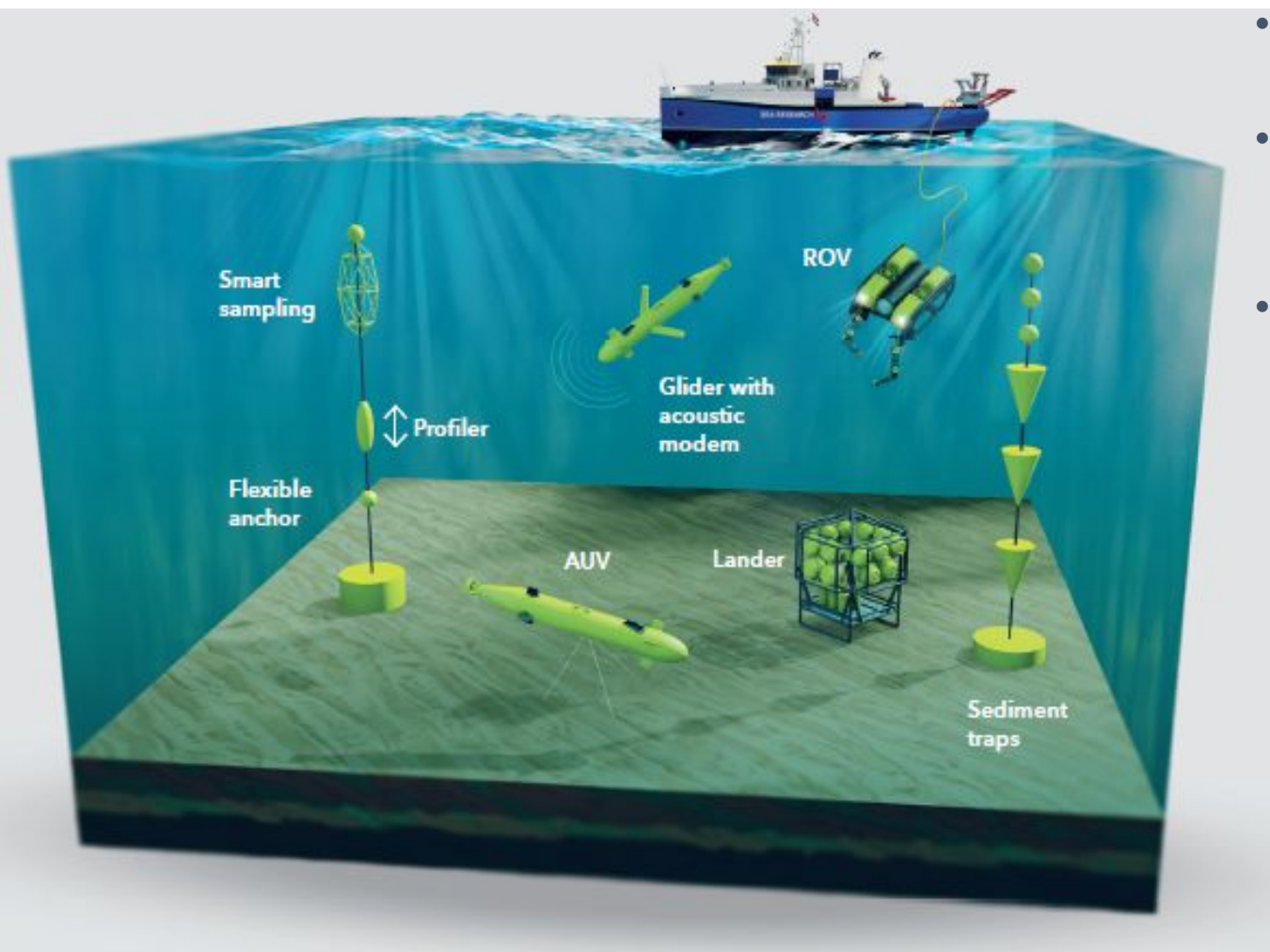
New build updates: *RV Anna Weber-van Bosse*



Specifications

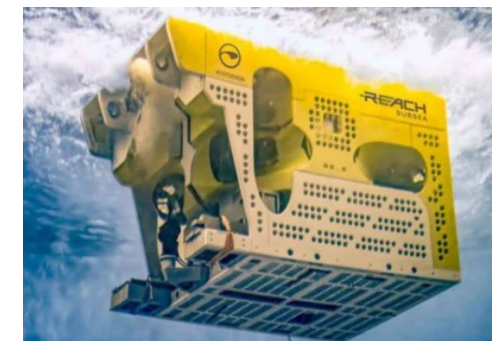
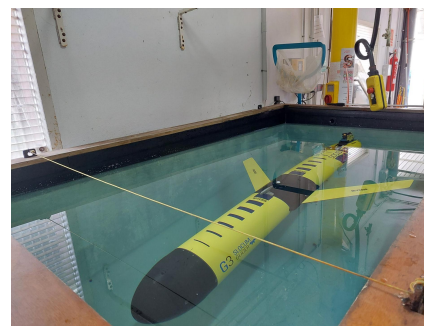
- Length overall 80m
- Breadth molded 17m
- Depth to main deck 8.70m
- Summer draught 5m
- Scantling draught 5.50m
- Accommodation 46
(16 crew + 30 scientists)
 - Ice-class 1C
 - DP2
 - Main-, dry-, wet- and geolab
 - Room for 12 laboratory containers (max 17)
 - Methanol ready

New equipment



Coming years large-scale infrastructure

- 3 Teledyne gliders 1000m (in operation)
- AUV Teledyne Gavia 2000m (delivery in early 2026)
- ROV Kystdesign 6000 m (delivery in 2026)



Farewell to *RV Pelagia*

- Built in 1991 in the Netherlands for research in the North Sea
- Been mostly in the North Sea and over the years the operation expanded to the North Atlantic but also the Mediterranean and Black Sea, the Pacific and Indian Ocean.
- Retirement: October 2025



Foto: Archief Schuttevaer - Pelagia

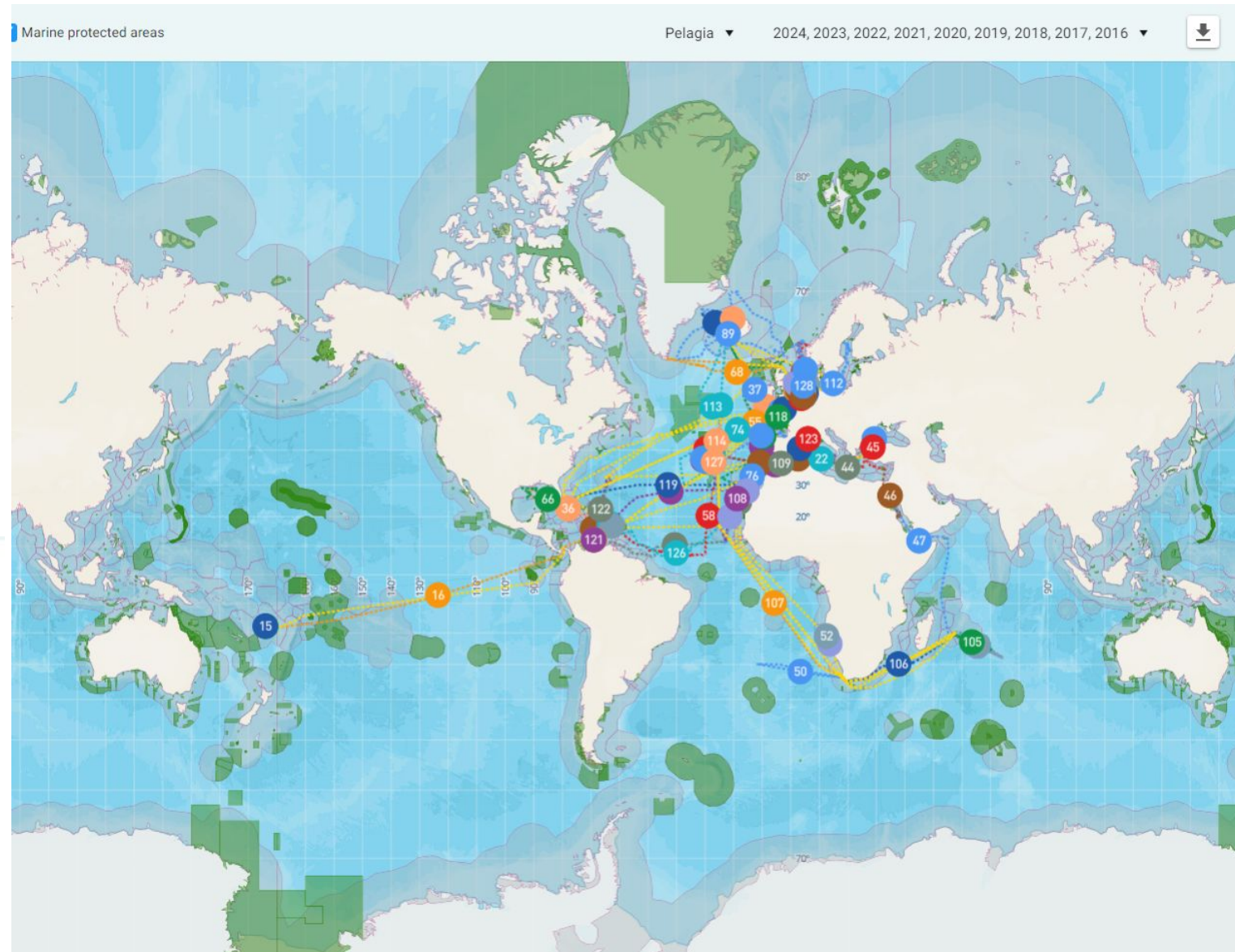


RV Pelagia over the years



Since 2016 the planning is via MFP

Days at sea:	1999.4	Unknown	331
NL EEZ:	263.6	Transit	215
Foreign EEZ :	1041.9	Mob/Demob	61
International waters:	693.9	Charter	306
MPA :	226.5	NL Science	1054
Docked :	810.3	Passage	437
NL ports :	418.6	Alongside	213
International ports :	391.6	ReCert	147
Total distance covered :	275.681 NM	Cruise Type Unknown	421
		EU Science	59
		Trials	9
		Barter	39



Screenshots taken MFP – reporting module

The “Shipsdata” & cruise log



Manual

Overview

Sensors

Dataview

Control

Sign out

<<< ⚙ Connected

Set message

Underway to Texel

Set

Set waypoint

Lat/Lon 53.007 4.79 Set

Project

- Test - 1923-12-31

- Test - 1923-12-31

529 - SEALINK: Land, Se... - 2024-01-04

531 - Mixation-I Recovery - 2024-01-25

532 - Large ring-moorin... - 2024-02-25

533 - Concerted action... - 2024-04-15

534 - NoSE- North Sea A... - 2024-04-25

535 - Weeds of Change S... - 2024-06-13

536 - SEAPACT "Seabed... - 2024-07-23

537 - Methane emission... - 2024-08-15

- Test - 2024-09-12

538 - INDEX2024 - Leg 1 - 2024-10-29

539 - INDEX2024 - Leg 2 - 2024-11-21

- Mijn Eerste cruise - 2024-12-11

Create new....

STATION

TRANSECT

⏪

Version: 2.X.X.XXX

Start action

Edit actions

Multibeam

Action Name: Multibeam

Action ID: 2

Action Description: Deep sea multibeam echo sounder

Devices:

Henk's MB Start action

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Running actions

Action	Device	Cast	Status	Started	Controls
Multibeam	#212687	4_1	Start	2024-09-17 18:09:27	BOT
CTD	#00009607	1_1	Start	2024-09-09 15:09:55	BOT

Failed actions

Action	ID	Controls
ADCP Track	1_1	

The Ships data & cruise log



Connected | master | No active cruise | 2024-09-17 16:47:17 UTC

Dataviewer _20220819_64PE509_I_NANO

Select other cruise

Event summary

CTD Editor Note Export as CSV / ODV

	Seapath	Seapath						Seapath	Seapath	Seapath	Seapath	Seapath	Seapath	Seapath	Seapath	
Date	latitude	longitude	Phase name	Device name	Action name	Operation Id	Cast	time	latitude direction	longitude direction	year	month	day	speed over ground	course over ground	sea
YYYY-MM-DD hh:mm:ss	* north	* east												kn		
2022-08-23 09:35:47	36.2302	33.9005	STATION 2	CTD with Samples	BOT	64PE509CTDBOT2	2_5	93547			2022	8	23	0.4	284.07	
2022-08-23 08:52:28	36.2292	33.9012	STATION 2	CTD with Samples	BEGIN	64PE509CTDBOT2	2_5	85225			2022	8	23	0.2	60.39	
2022-08-23 08:32:33	36.2292	33.901	STATION 2	In Situ Pump	END	64PE509ISP2	2_4	83231			2022	8	23	0.3	63.13	
2022-08-23 08:05:48	36.2297	33.9005	STATION 2	In Situ Pump	STOP	64PE509ISP2	2_4	80546			2022	8	23	0.5	171.40	
2022-08-22 20:34:29	36.2293	33.9008	STATION 2	In Situ Pump	START	64PE509ISP2	2_4	203427			2022	8	22	0.2	166.28	
2022-08-22 20:30:36	36.2292	33.9007	STATION 2	In Situ Pump	BEGIN	64PE509ISP2	2_4	203033			2022	8	22	0.5	37.13	
2022-08-22 19:46:11	36.2288	33.8942	STATION 2	CTD with Samples	END	64PE509CTDBOT2	2_3	194610			2022	8	22	0.7	163.38	
2022-08-22 16:20:00	36.2298	33.9023	STATION 2	CTD with Samples	BOT	64PE509CTDBOT2	2_3	161958			2022	8	22	0.5	164.14	
2022-08-22 15:34:02	36.2292	33.9033	STATION 2	CTD with Samples	BEGIN	64PE509CTDBOT2	2_3	153400			2022	8	22	0.5	120.26	
2022-08-22 15:15:09	36.2292	33.9105	STATION 2	HD Video	END	64PE509HD2	2_2	151508			2022	8	22	0.1	105.86	
2022-08-22 14:30:59	36.2278	33.9097	STATION 2	HD Video	ENDTRACK	64PE509HD2	2_2	143057			2022	8	22	1.1	271.45	
2022-08-22 13:27:45	36.23	33.8987	STATION 2	HD Video	STARTTRACK	64PE509HD2	2_2	132746			2022	8	22	0.5	282.50	
2022-08-22 12:49:44	36.2297	33.8982	STATION 2	HD Video	BEGIN	64PE509HD2	2_2	124943			2022	8	22	0.6	339.07	
2022-08-22 12:34:19	36.2285	33.891	STATION 2	HD Video	END	64PE509HD2	2_1	123418			2022	8	22	0.5	289.81	

Cruise log to MFP > reports



MFP - Project Management

Project Management > Workflow > Upload Ships data

Upload Ships Data

Automatic Data Upload



The ShipsData system running on your vessel is designed to automatically upload the generated data file directly after the cruise is finished.

This upload occurs via a secure API connection, ensuring your cruise data is seamlessly transferred and integrated into the Marine Facilities Planning platform without requiring manual intervention.

Manual Data Upload

Important: Make sure that the file being uploaded is specific to your cruise and is in the correct format required by the ShipsData system. Once uploaded, it will be processed and integrated into the Marine Facilities Planning platform.



Select document

Drop files here to upload

Cruise log to MFP > reports



MFP - Project Management

Jeroen Buijs

Project...

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Map of the North Atlantic and Arctic regions showing a cruise track with numbered stations (1-9) and a detailed inset map of the Arctic region showing a complex track with numbered stations (1-9).

Uploaded Cruise title name

📄 _20230729_64_PE5...

Add description

Download

Station name	Devices used	Entry date	Exit date
Station 0	ACQUATO, CTD, with Samples	29-12-2023 8:33	29-12-2023 8:33
Station 1	ACQUATO, CTD, with Samples, In Situ Pump	01-01-2024 7:33	01-01-2024 6:33
Station 2	ACQUATO, CTD, with Samples	02-01-2024 8:33	03-01-2024 8:33
Station 3	ACQUATO, CTD, with Samples	04-01-2024 5:33	06-01-2024 18:24
Station 4	ACQUATO, CTD, with Samples	02-01-2024 8:33	03-01-2024 8:33
Station 5	ACQUATO, CTD, with Samples	04-01-2024 5:33	06-01-2024 18:24

Station 1

Devices(s) Used

None, ACQUATO, CTD with Samples, In Situ Pump

Station Time	Entry Date	Entry Coordinates
13.804.60m	2023-08-02 05:53:01	Lat: 55.7432, Lon: -29.0388
Dist. Travelled	Exit Date	Exit Coordinates
13.804.60m	2023-08-02 05:53:01	Lat: 55.7432, Lon: -29.0388

CTD with Samples

Begin	Time: 2023-08-06 09:44:58	Lat: 52.01, Lon: -29.41
Start	Time: 2023-08-06 09:44:58	Lat: 52.01, Lon: -29.41

MAAS
SOFTWARE ENGINEERING

Cruise log to MFP > equipment history



MFP | NIOZ Inventory Management

Yasar Abbas

Details

Financial

Deployment History

Maintenance

Documents

Tracking

Planning

Usage

Contents 33

Ultra Clean CTD frame

8204 / 01

+ Add

Export

Start	End	User	Note	Tags	Properties	
25-8-2022	25-8-2022	System .	Ships data - Upload		Cruise: TestCruise, Station: STATION 3, Depth (m): 2.203,10, Cast: 3_2, Time: 2h28m0s	<div></div> <div></div>
23-8-2022	23-8-2022	System .	Ships data - Upload		Cruise: TestCruise, Station: STATION 2, Depth (m): 2.242,70, Cast: 2_6, Time: 2h21m0s	<div></div> <div></div>
21-8-2022	21-8-2022	System .	Ships data - Upload		Cruise: TestCruise, Station: STATION 1, Depth (m): 848,67, Cast: 1_11, Time: 1h31m0s	<div></div> <div></div>
20-8-2022	20-8-2022	System .	Ships data - Upload		Cruise: TestCruise, Station: STATION 1, Depth (m): 808,24, Cast: 1_2, Time: 1h5m0s	<div></div> <div></div>
20-8-2022	20-8-2022	System .	Ships data - Upload		Cruise: TestCruise, Station: STATION 1, Depth (m): 803,23, Cast: 1_1, Time: 0h15m0s	<div></div> <div></div>



Thank you for your attention!

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Follow the project at: www.newresearchfleet.nl

Royal NIOZ National Marine Facilities (NMF) manage and operate the national research vessels and equipment for the benefit of the marine and maritime research community

