

Royal Netherlands Institute for Sea Research

# 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.: ~125m<sup>2</sup>
  - 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.

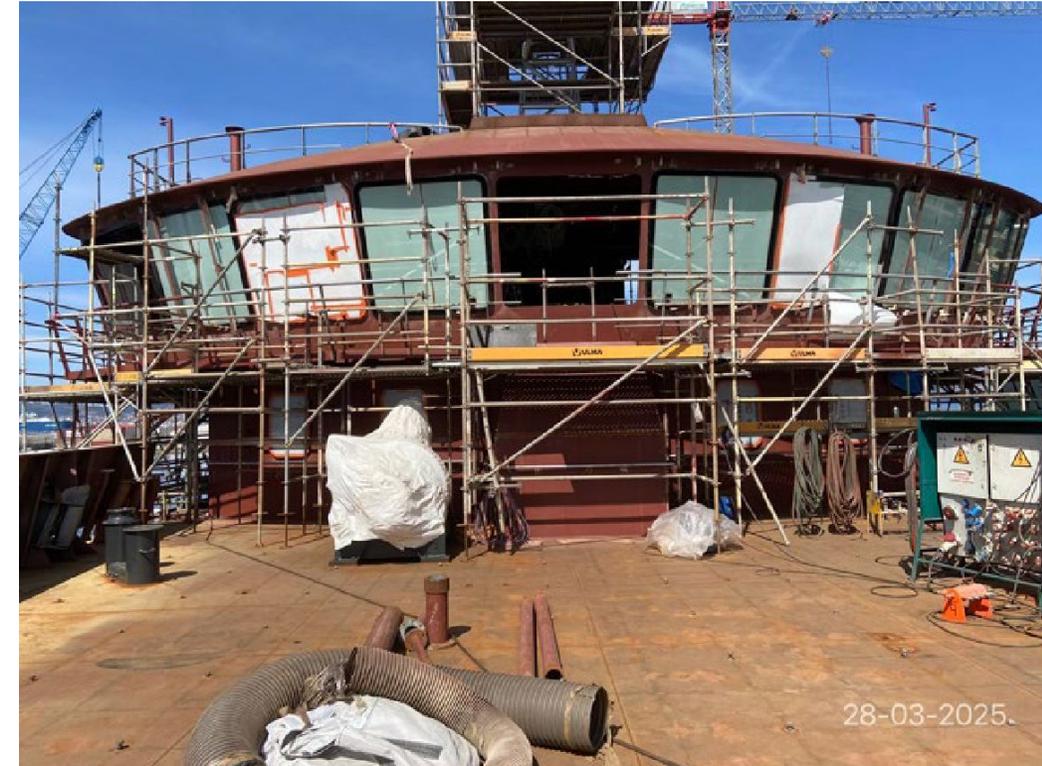


# New build updates: *RV Anna Weber-van Bosse*

## 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*



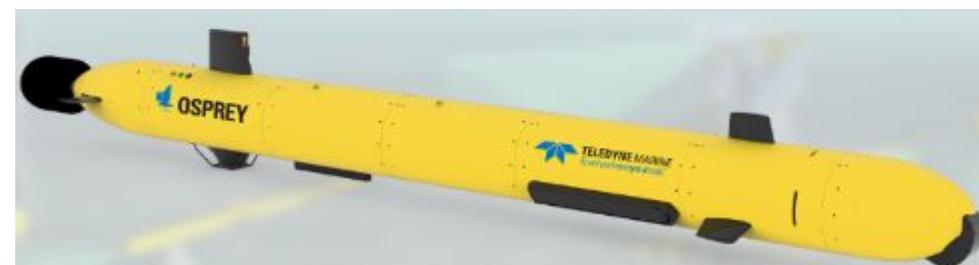
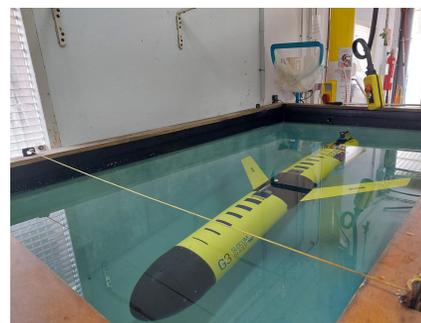
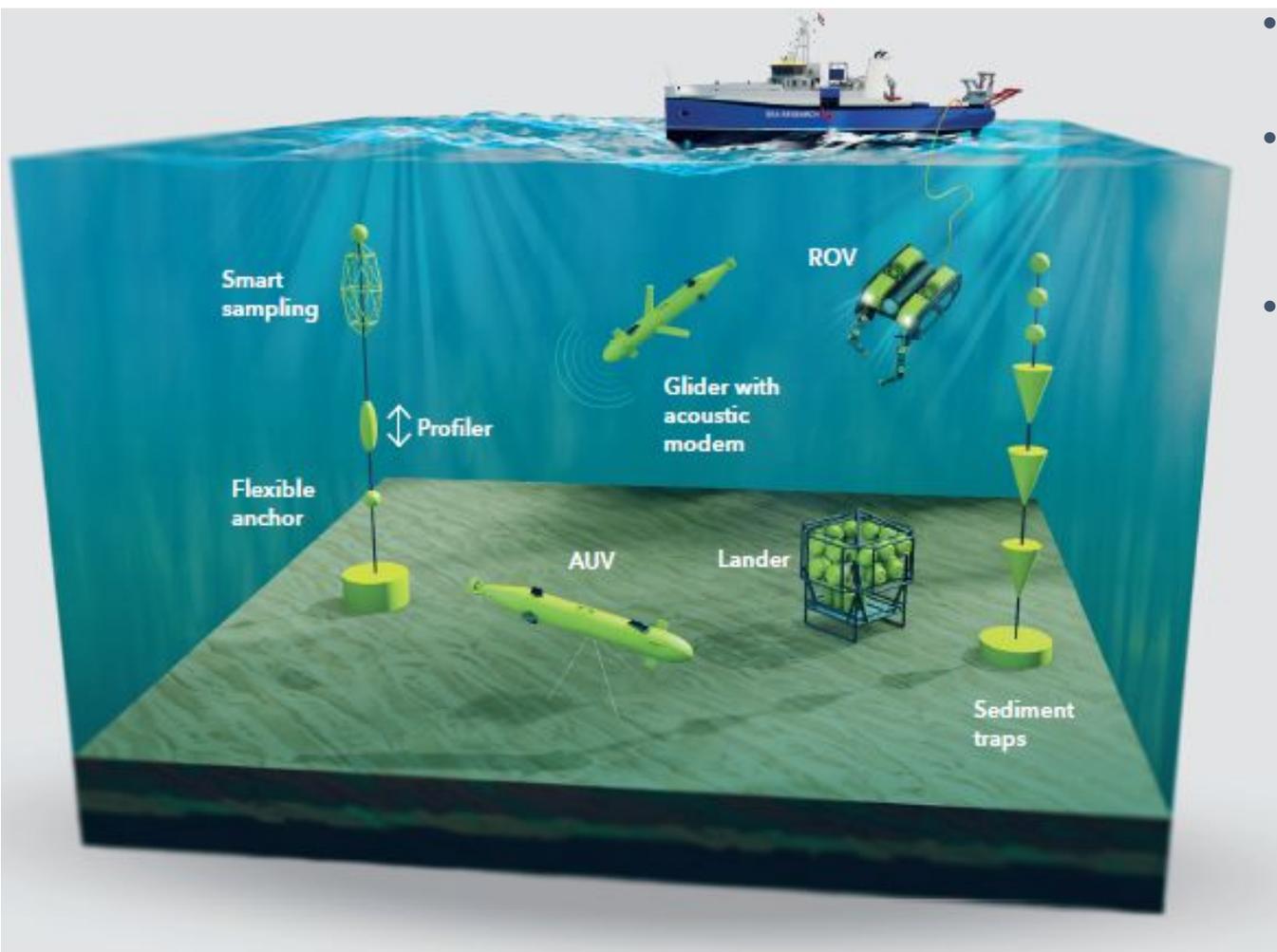
### Specifications

- 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

NL EEZ: 263.6

Foreign EEZ : 1041.9

International waters: 693.9

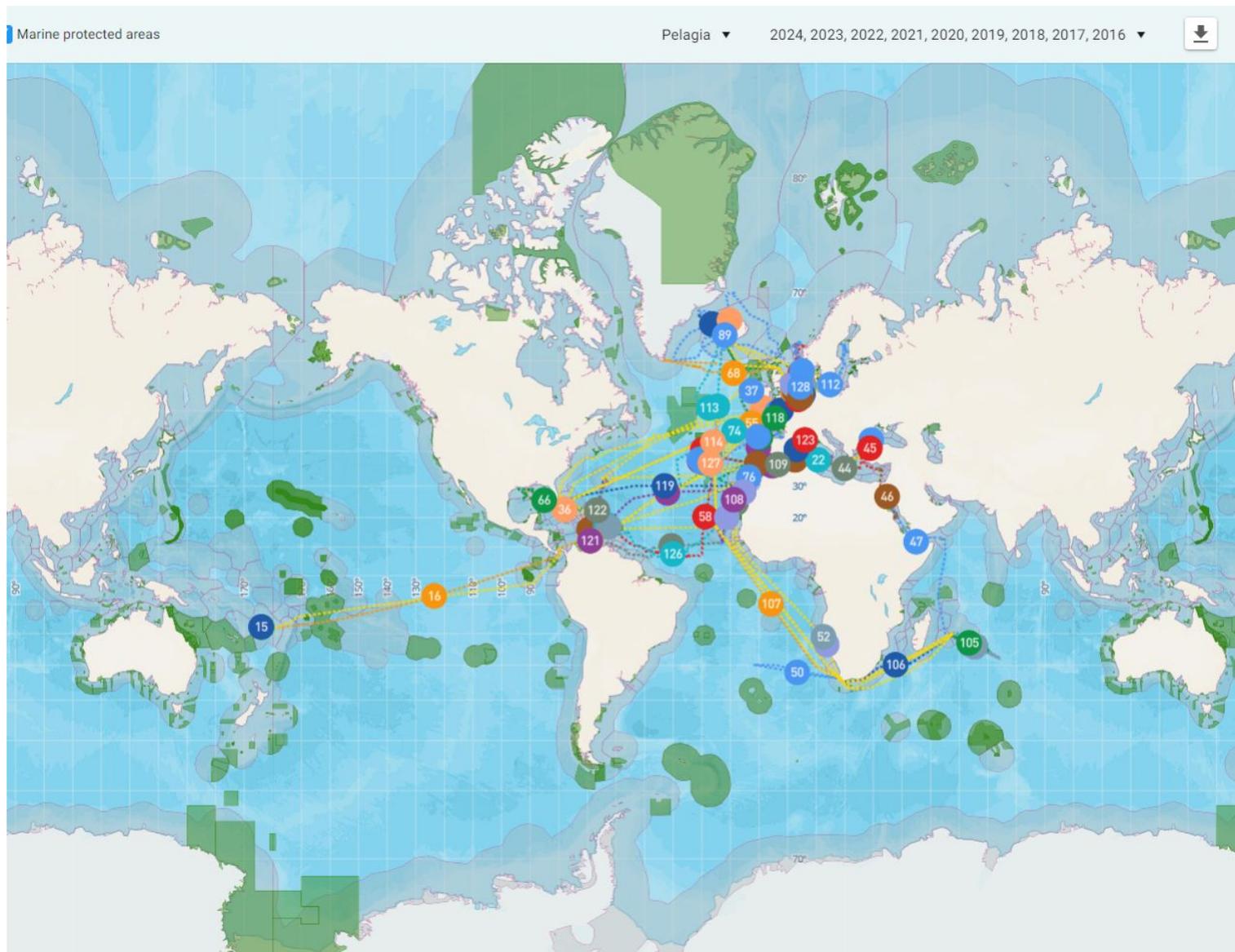
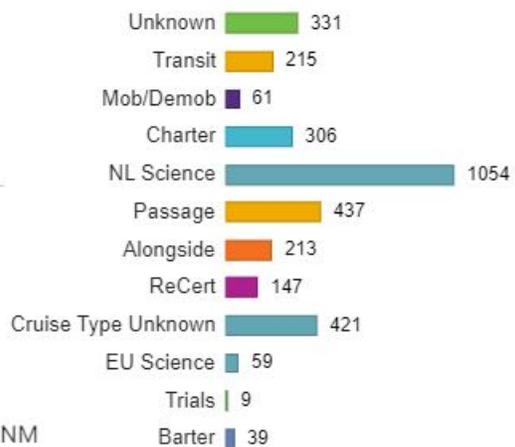
MPA : 226.5

Docked : 810.3

NL ports : 418.6

International ports : 391.6

Total distance covered : 275.681 NM



Screenshots taken MFP – reporting module

# The "Shipsdata" & cruise log



Manual Connected

Overview

Sensors

Dataview

Control

Sign out

Set message

Underway to Texel

Set

Set waypoint

Lat/Lon   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

⏪

## 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



## Dataviewer\_20220819\_64PE509\_I\_NANO

Select other cruise

### Event summary

CTD Editor Note Export as CSV / ODV

Date	Seapath latitude	Seapath longitude	Phase name	Device name	Action name	Operation Id	Cast	Seapath time	Seapath latitude direction	Seapath longitude direction	Seapath year	Seapath month	Seapath day	Seapath speed over ground	Seapath course over ground	Seapath 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

Map showing the cruise track in the North Atlantic, with stations 0 through 8 marked along the route. Station 1 is highlighted.

Uploaded Cruise title name

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

# Cruise log to MFP > equipment history



MFP | NIOZ Inventory Management Yasar Abbas

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		<a href="#">✎</a> <a href="#">✕</a>
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		<a href="#">✎</a> <a href="#">✕</a>
21-8-2022	21-8-2022	System .	Ships data - Upload	Cruise: TestCruise, Station: STATION 1, Depth (m): 848,67, Cast: 1_11, Time: 1h31m0s		<a href="#">✎</a> <a href="#">✕</a>
20-8-2022	20-8-2022	System .	Ships data - Upload	Cruise: TestCruise, Station: STATION 1, Depth (m): 808,24, Cast: 1_2, Time: 1h5m0s		<a href="#">✎</a> <a href="#">✕</a>
20-8-2022	20-8-2022	System .	Ships data - Upload	Cruise: TestCruise, Station: STATION 1, Depth (m): 803,23, Cast: 1_1, Time: 0h15m0s		<a href="#">✎</a> <a href="#">✕</a>

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# Thank you for your attention!

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Follow the project at: [www.newresearchfleet.nl](http://www.newresearchfleet.nl)

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