

RESEARCH VESSEL PROGRAMME

**RV CEFAS ENDEAVOUR
Survey: C END 12 - 2021**

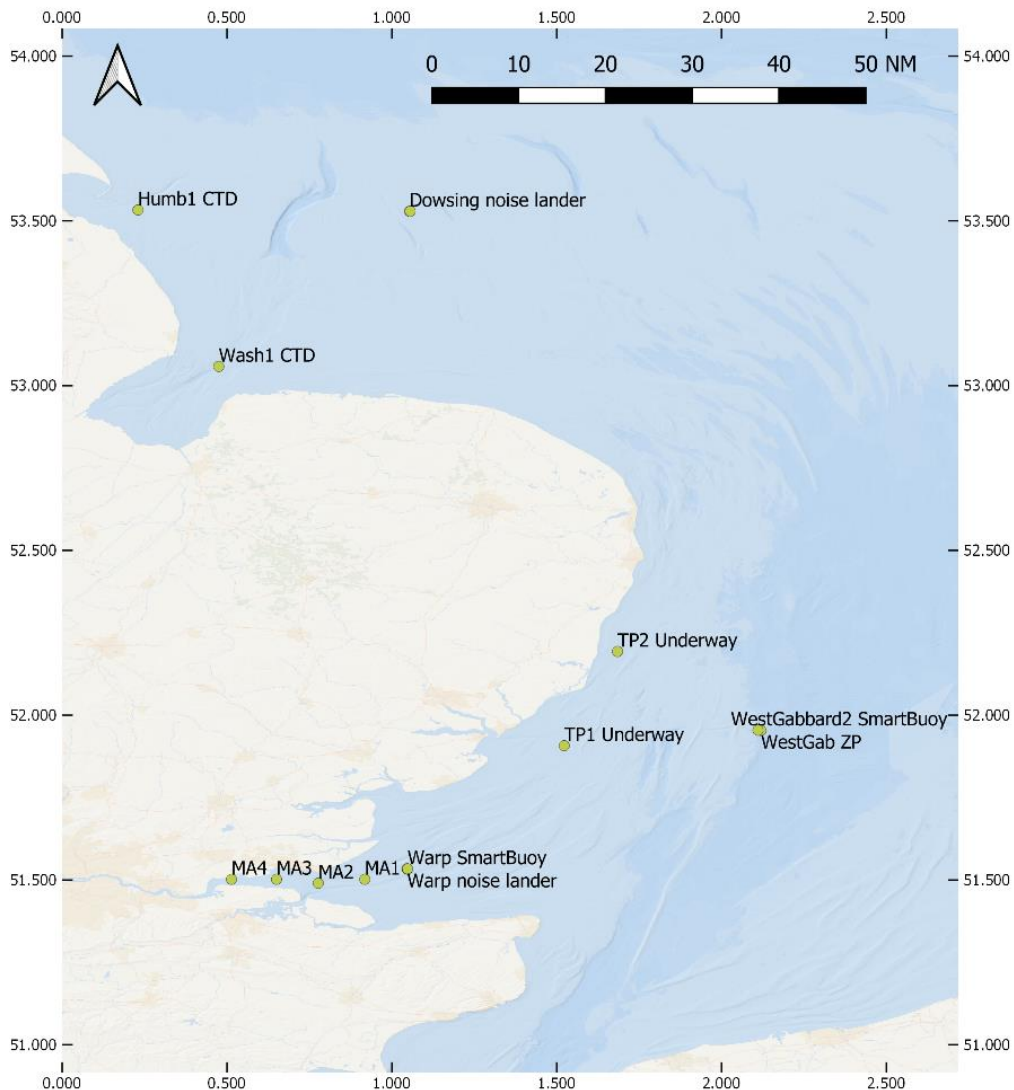
STAFF:

Name	Role	Cabin	Shift
Manuel Nicolaus	SIC	SIC	Days
Eleanor Haigh	2IC/water	B2	12:00-00:00
Bryan Goodsir-Thompson	Deck lead	C3	Days
Axayacatl Molina-Ramirez	Deck	C4	Days
Annie Meadows	Deck	C1	Days
Tom Hull	Deck	C5	Days
Rodney Brash	Deck	C2	Days
Elise Brabben	Water lead (nights)	C7	00:00-12:00
Isobel Lake	Water	C6	00:00-12:00
Mollie Allerton	Water	C8	12:00-00:00
Uwe Posner	Ferrybox	D4	Days
Sven Drechsler	Ferrybox	D5	Days

DURATION: 20th August evening tide to 22nd August evening tide

LOCATION: North Sea (all coordinates N,E)

Dowsing lander:	53° 31.749	1° 03.228	53.529	1.0538
Dowsing clump:	53° 31.74	1° 03.36	53.529	1.056
Warp SB:	51° 31.98	1° 02.8758	51.533	1.04793
Warp lander:	51° 31.938	1° 02.796	51.5323	1.0466
Warp clump:	51° 32.016	1° 02.7822	51.5336	1.04637
WestGab2:	51° 57.246	2° 06.66	51.9541	2.111
WestGab2 ZP:	51° 57.2	2° 07.2	51.953	2.12
TP1 Underway	51° 54.430	1° 31.355	51.907	1.523
TP2 Underway	52° 11.560	1° 41.075	52.193	1.685
Humb1CTD	53° 32.0	0° 20.0	53.533	0.333
Wash1 CTD	53° 3.50	0° 28.5	53.058	0.475
MA1 underway:	51° 30.085	0° 55.087	51.501	0.918
MA2 underway	51° 29.374	0° 46.609	51.489	0.777
MA3 underway	51° 30.086	0° 39.017	51.501	0.650
MA4 underway	51° 30.084	0° 30.822	51.501	0.514



AIMS:

1. Service Noise Landers at Dowsing and Warp (GIA6H)
2. Service SmartBuoys at West Gabbard and Warp (GIA03D)
3. Continuous flow and CTD Rosette water sampling as required on various transects
4. Collection of zooplankton sample at West Gabbard
5. Service of Ferrybox
6. Test deployment and recovery of Waveglider

PLAN:

Leaving 20:00 on the 20th August (depending on test results)

Return at 23:00 of the 22nd August staff leaving on the 23rd August

RV Cefas Endeavour will sail at depending on testing and steam south to the Warp site and carry out the following activities:

Warp1	Pre-recovery CTD,
Warp2	Recover and deploy SmartBuoy (51° 31.98 -001° 02.8758)
Warp3	Recover and deploy Noise Lander (51° 32.016-001°02.7822)
Warp4	Post-deployment CTD.

Transit will be through two waypoints in the Thames plume:

TP1	Underway sample-steam through (51° 54'.430N 001° 31'.355E)
TP2	Underway sample-steam through (52° 11'.560N 001° 41'.075E)

During transit hourly underway water samples will be taken.

In the event of early arrival at Warp, an additional steam into the Thames will be taken following suggested waypoints MA1-4. A transect of underway samples and one CTD will be taken along the Thames route.

Endeavour will then transit to the West Gabbard 2 site and carry out the following activities:

WGab1	Waveglider deployment
WGab2	Pre-recovery CTD,
WGab3	Recover and deploy SmartBuoy (51° 57.246 -2° 06.66)
WGab4	Waveglider recovery
WGab5	Post-deployment CTD
WGab6	Zooplankton net haul sample (in area of 51° 57'.2N, 002° 07'.2E).

During transit 2 hourly underway water samples will be taken.

Transit will then be to the following CTD sites:

Humb1	CTD (53° 32'.0N, 000° 20'.0E)
Wash1	CTD (53° 3'.50N, 000° 28'.5E)

Upon entry to the Humber and Wash plume areas underways sampling will increase to hourly.

Endeavour will then continue to the Dowsing site to carry out the following activities:

Dow1	Recover and deploy Noise Lander (53° 31.74 -1° 03.36)
Dow2	CTD

Once the mooring work is complete, Endeavour will then make its way to Lowestoft.

Docking on evening tide, 22nd August.

Exact order of operations to be determined in consultation with the Master. If the weather is poor, the route may be revised.

Gear:

See Gear List

Scientist in Charge: E. E. Manuel Nicolaus
Second Scientist in Charge: Eleanor Haigh

Date: 29/07/2021

DISTRIBUTION:

BODC
MIST
AW
Staff