

RESEARCH VESSEL PROGRAMME

RV CEFAS ENDEAVOUR

Survey: C END 02- 2018

STAFF:

Name	Role	Shifts (draft)
Paul McIlwaine	Benthic ecologist, SIC	07:00 – 19:00
Ian Holmes	Fisheries lead scientist, SIC	07:00 – 19:00
Steve Shaw	Fisheries scientist, Deck master	07:00 – 19:00
Sara Stones	Sedimentologist, Data manager	07:00 – 19:00
Bill Meadows	Hydrographer & Survey engineer	07:00 – 19:00
Peter Randall	Fisheries scientist, Day lead	12:00 – 00:00
Axa Molina-Ramirez	Instrument technician	12:00 – 00:00
James Pettigrew	Plankton ecologist, plankton lead	12:00 – 00:00
Anna Downie	Habitat mapper, survey scientist	12:00 – 00:00
Paul Nelson	Oceanographer, water sampling lead	12:00 – 00:00
Sue Ware	Benthic ecologist, Night lead	00:00 – 12:00
Sam Roslyn	Fisheries scientist, survey scientist	00:00 – 12:00
Andrew Bodle	Instrument technician	00:00 – 12:00
Dave Clare	Benthic ecologist, survey scientist	00:00 – 12:00
Dave Brown	Fisheries scientist, survey scientist	00:00 – 12:00
Daniel Clarke	Fisheries scientist, survey scientist	00:00 – 12:00


DURATION: 14th Jan. 2018 – 30th Jan 2018

N.B. There is a requirement to conduct a crew transfer during CEND0218 to enable two staff members (Ian Holmes and Sue Ware) to disembark, before the Swallow Sand survey objective commences - (Proposed method: Humber 'water' taxi', 24th/25th Jan. 2018).

LOCATION: *Please provide a detailed map and state longitudes and latitudes*



Fishing stations.txt

Y	X	
54° 30' 51.588'''' N	1° 1' 13.188'''' E	
54° 24' 8.388'''' N	1° 34' 10.812'''' E	
54° 23' 16.800'''' N	2° 20' 43.188'''' E	
53° 59' 15.600'''' N	1° 16' 35.400'''' E	
54° 3' 47.880'''' N	1° 47' 24.000'''' E	
54° 0' 0.000'''' N	2° 0' 0.000'''' E	
53° 50' 17.400'''' N	2° 37' 27.000'''' E	
53° 33' 24.120'''' N	2° 4' 55.200'''' E	
52° 46' 28.560'''' N	2° 17' 15.000'''' E	
52° 43' 54.480'''' N	2° 27' 30.600'''' E	
52° 48' 39.960'''' N	2° 45' 19.800'''' E	
52° 0' 0.000'''' N	2° 19' 59.880'''' E	
51° 50' 32.400'''' N	2° 10' 20.400'''' E	
		
51° 45' 54.600'''' N	1° 45' 55.200'''' E	Export_Output.txt
54° 14' 30.120'''' N	0° 29' 17.880'''' E	



Swallow Sand Boxes_Points.txt

Box	X	Y
Box01 origin	0° 56' 31.692'''' E	55° 34' 33.905'''' N
Box01 point 1	1° 10' 42.168'''' E	55° 32' 41.791'''' N
Box01 point 2	1° 9' 39.887'''' E	55° 30' 7.851'''' N
Box01 point 3	0° 55' 28.551'''' E	55° 31' 58.743'''' N
Box01 origin	0° 56' 31.692'''' E	55° 34' 33.905'''' N
Box02 origin	0° 52' 59.105'''' E	55° 23' 37.818'''' N
Box02 point 1	1° 7' 5.876'''' E	55° 21' 46.173'''' N
Box02 point 2	1° 6' 4.148'''' E	55° 19' 12.190'''' N
Box02 point 3	0° 51' 56.519'''' E	55° 21' 2.613'''' N
Box02 origin	0° 52' 59.105'''' E	55° 23' 37.818'''' N

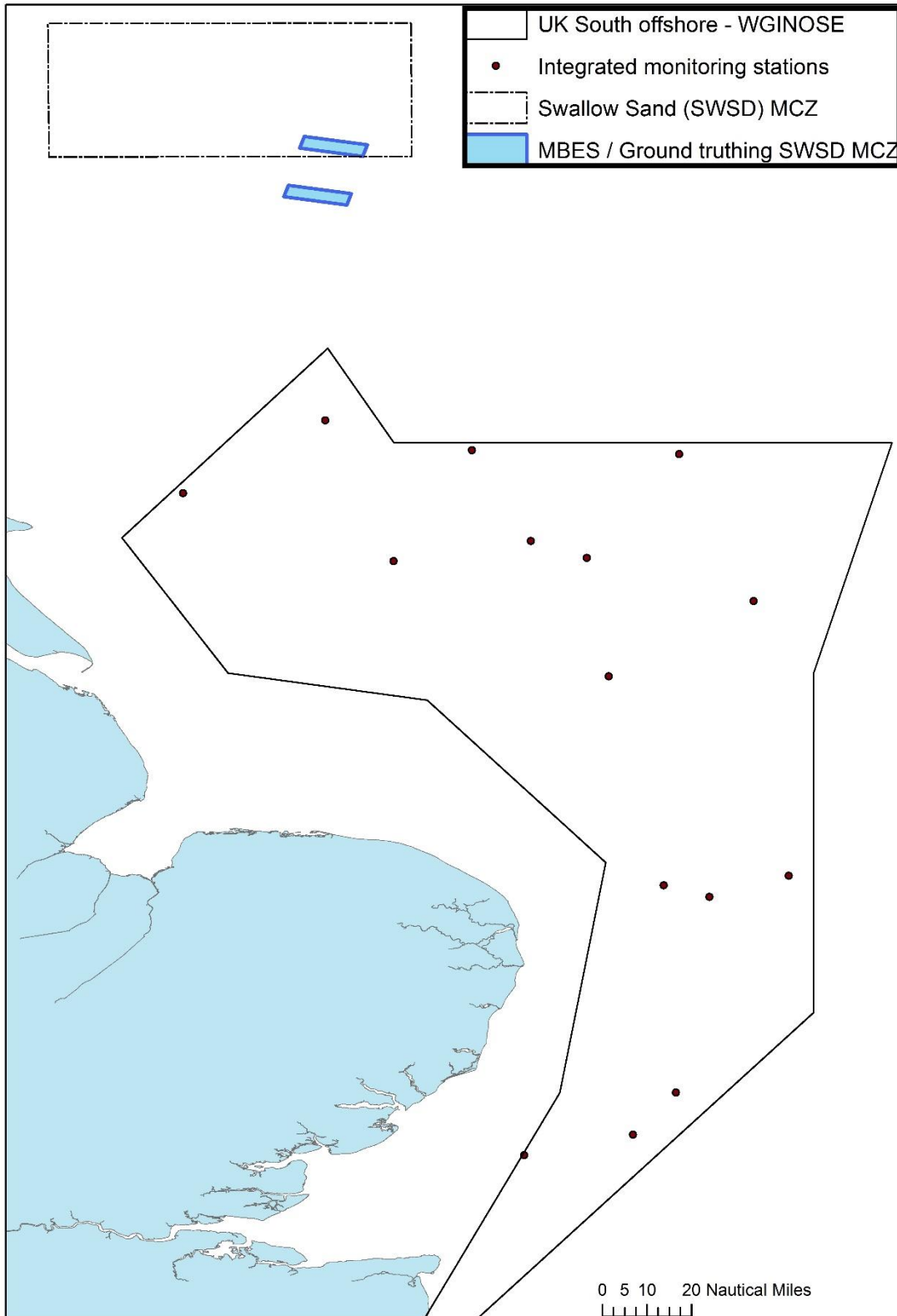


Figure 1. Overview of sampling areas

AIMS:

This expedition is concerned with two main objectives, 1) conducting an integrated monitoring survey of the 'UK South offshore' sea area (from the Working Group on Integrated Assessments of the North Sea) and 2) conducting a characterisation / baseline monitoring survey of part of the Swallow Sand MCZ.

PLAN:

OBJECTIVE 1. The vessel will depart Lowestoft on evening HW tide of the 14th of Jan. 2018 and transit to the south of the 'UK South Offshore' survey area to visit each integrated monitoring station in turn. Fishing will be restricted to daylight hours and the sequence of gears deployed will aim to maximise efficiencies around vessel transits and deployment restrictions. The expected deployment routine, subject to weather and time available at each station will be:

- 1) Acquire MBES along fishing tow
 - a. Process MBES data and plan GT stations
- 2) Deploy GOV with CTD
 - a. Process trawl catch and download CTD info
- 3) Deploy Zooplankton ring nets (with CTD), ESM2 logger and Niskin
 - a. Preserve zooplankton samples, process water samples and download CTD data
 - b. Collect and preserve phytoplankton sample
- 4) Deploy camera sledge
 - a. Record seabed imagery
- 5) Deploy Scientific 2 m 'Jennings' Beam Trawl
 - a. Process trawl catch
- 6) Deploy 0.1 m² Hamon Grab
 - a. Process sediment sample
- 7) Deploy NIOZ core
 - a. Process sediment sample

<STAFF TRANSFER TO SHORE: Ian Holmes and Sue Ware>

OBJECTIVE 2. There may be a requirement to complete MBSE data acquisition (e.g. outstanding from CEND0118) at survey boxes in the Swallow Sand MCZs. Ground truthing of up to two survey boxes within and adjacent to the Swallow Sand sites will be conducted using a grab and then a camera sledge system. It is expected that ground truthing operations will be confined to the Swallow Sand MCZ survey boxes and will take four days of 24 operations (Figure 1).

GEAR:

See the expedition specific gear list for a more detailed inventory of equipment aboard CEND0218.

SUMMARY:

MBES system and SVP/CTD, GOV trawl, 0.1 m² Hamon grab, NIOZ, 0.1 m² Day Grab, Shipek grab, various ring nets and ancillary equipment, ESM2 data loggers, 2 m Scientific 'Jennings' Beam Trawl, Camera sledge, Ferry box.

Paul McIlwaine
Scientist in Charge
14/12/2017

DISTRIBUTION:

MIST
POMS
Ian Holmes
Sue Ware
Mark Etherton

BODC