

Final Report (Project Code): C5433

Mid St George's Channel rMCZ Survey Report CEND0513

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1 Background and Introduction

1.1 Survey Project Team

The Mid St Georges Channel survey (CEND0513) was carried out between 1st May and 6th May 2013 on the RV *CEFAS Endeavour* cruise CEND0513. The survey team for the duration of the fieldwork included Cefas marine ecologists, marine surveyors, marine habitat mappers and GIS specialists along with MPA specialists from the JNCC.

1.2 Then get in touch with ourSite Description

Mid St Georges Channel rMCZ is located in the offshore waters of the Irish Sea, 23 km (12.3 nm) from the coast of Wales. It is situated between Irish offshore waters to the west and Welsh territorial waters to the east. The depth of the site ranges from 60 – 125 m.

(For a detailed site description see Final recommendations for Marine Conservation Zones in the Irish Sea 2011)

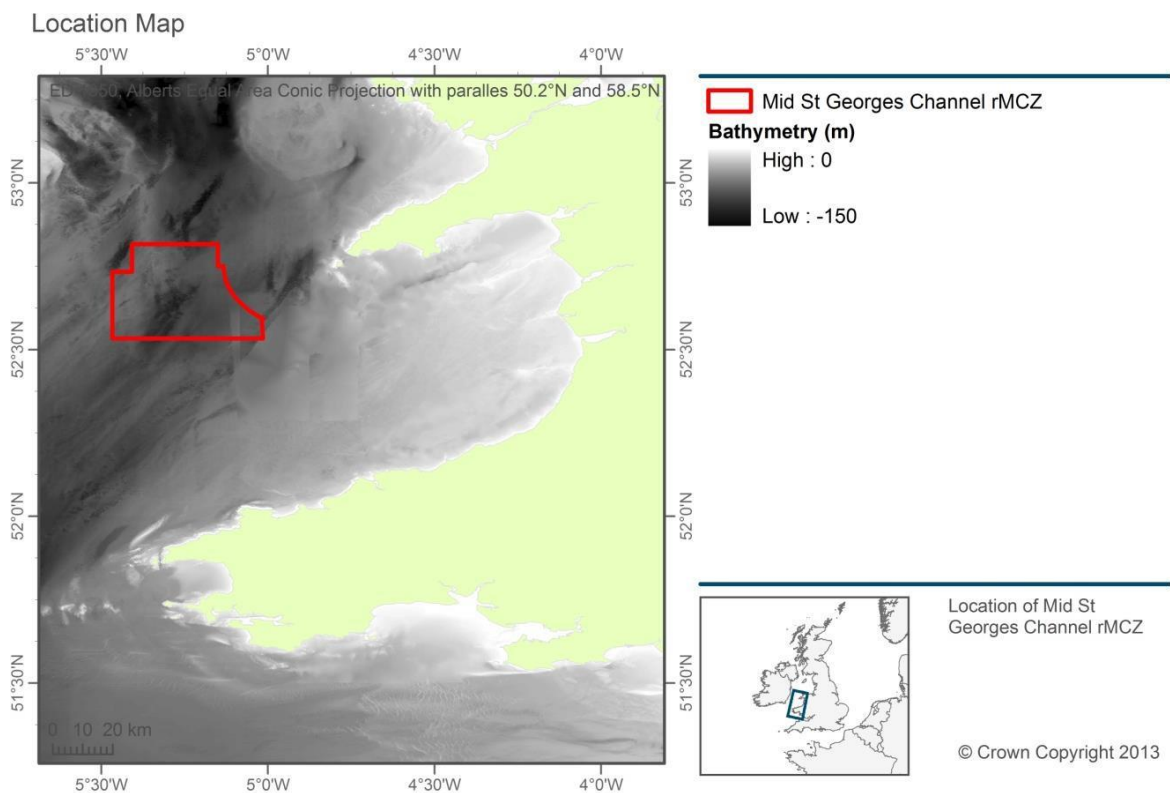


Figure 1. Location of Mid St Georges Channel rMC.Z. [Bathymetry is from the Defra Digital Elevation Model (Astrium, 2011)].

1.3 Geological and Biological Context

A number of Broad Scale Habitat (BSH) features and Features of Conservation Interest (FOCI) have been proposed for designation within the rMCZ (Table 1).

Table 1. Features proposed for designation within Mid St George's Channel rMCZ.

Feature Type	Feature Name
Broad Scale Habitat (BSH)	A4.2 Moderate energy circalittoral rock
	A5.1 Subtidal coarse sediment
	A5.2 Subtidal sand
	A5.4 Subtidal mixed sediments
	A5.6 Subtidal biogenic reef
Features of Conservation Interest (FOCI)	
Habitats	Subtidal Sands and Gravels*

***Subtidal sands and gravels are considered to be adequately protected by its component habitat features subtidal sand and/or subtidal coarse sediment, and is no longer included within MCZ designations.**

No additional broadscale habitat features or features of conservation importance were identified to be present, but not proposed as part of the designation of this site (Table 2).

Table 2. Features present but not proposed for designation within Mid St George's Channel rMCZ.

Feature Type	Feature Name
Features of Conservation Interest (FOCI)	
Habitats	NA
Species	NA

1.4 Existing data and information utilised to inform survey planning

Corridor Multibeam bathymetry data collected under the auspices of the Mid Irish Sea Project (2007) in addition to full-coverage Multibeam bathymetry data collected through the 'Invitation to Tender' (ITT) process were utilised during the planning of the ground-truthing survey at Mid Saint Georges Channel rMCZ.

Map showing existing Multibeam bathymetry data at Mid St Georges Channel rMCZ

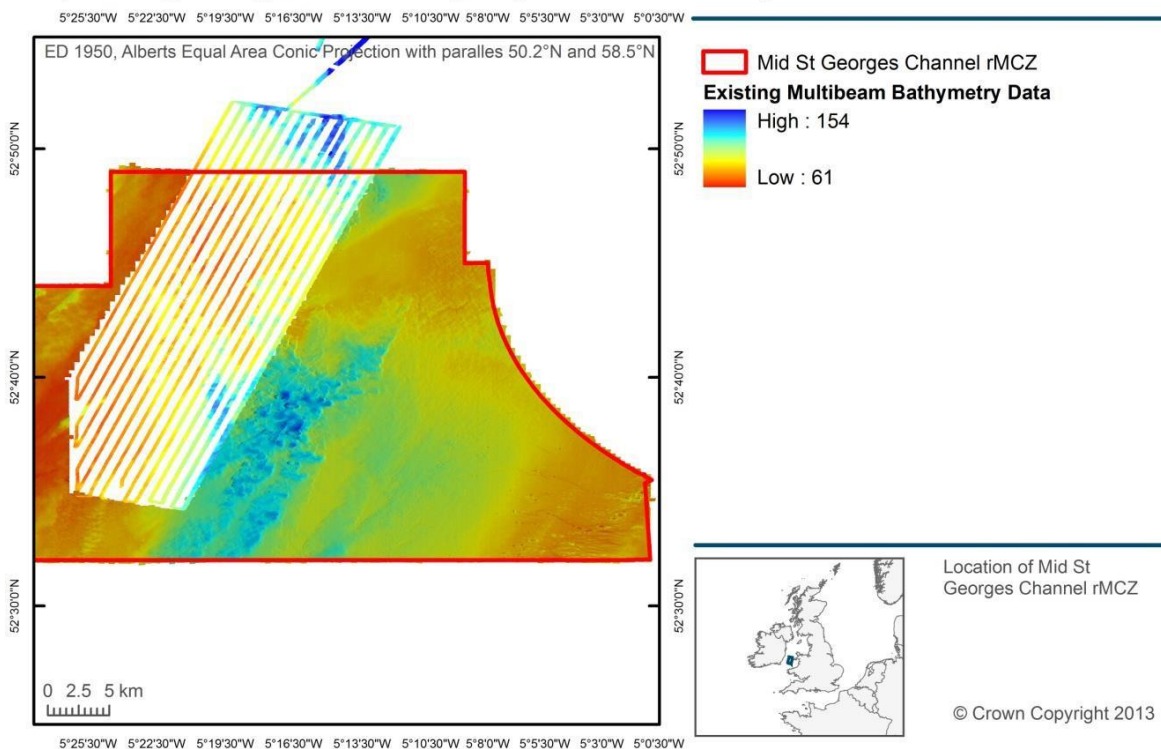


Figure 2. Existing data sources of relevance to informing the survey design at the Mid St George's Channel rMCZ.

2 Survey Design and Methods

2.1 Survey planning and design

A standard MCZ ground-truthing sampling grid was applied to different habitat types identified from the processed bathymetry and backscatter layers previously collected during the ITT. Station positions were then modified to target features of interest, in particular suspected reef features.

Camera tows were planned at a subset of stations, approximately a third of the total number of ground-truthing stations. Additional camera stations specifically targeting potential reef areas were also planned. The HamCam was employed to collect samples from sedimentary habitats (Figure 5). A minimum of 15 and a maximum of 30 ground-truthing stations were targeted within each broadscale habitat identified during the interpretation of the existing Multibeam bathymetry and backscatter data collected during the ITT.

Map showing Hamon grab and drop camera deployments at Mid St Georges Channel rMCZ

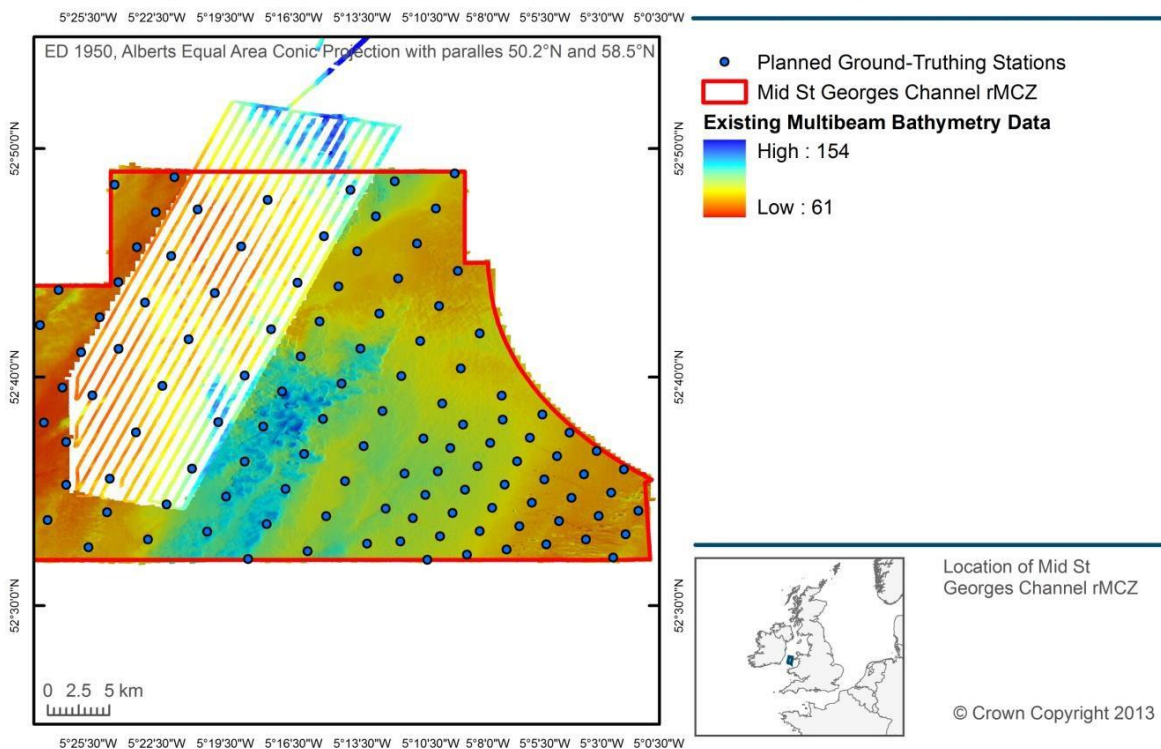


Figure 3. Planned ground-truthing survey at Mid St Georges Channel rMCZ.

2.2 Sample collection and processing methods

2.2.1 Sedimentary Broad Scale Habitats

Sedimentary habitats were ground-truthed by grab and underwater camera. The grab system comprised a 0.1 m² mini Hamon grab fitted with a video camera (Figure 3), the combined gear being known as a HamCam. This allowed an image of the undisturbed seabed surface to be obtained for each grab sample. On recovery, the grab was emptied into a large plastic bin and a representative sub-sample of sediment (approx. 0.5 litres) taken for Particle Size Analysis (PSA). The sample was stored in a labelled plastic container and frozen ready for transfer to a laboratory ashore.

The remaining sample was photographed and the volume of sediment measured and recorded. Benthic fauna were collected by washing the sample with sea-water over a 1mm sieve. The retained >1mm fraction was transferred to a labelled container and preserved in 4% buffered formaldehyde for later analysis ashore.

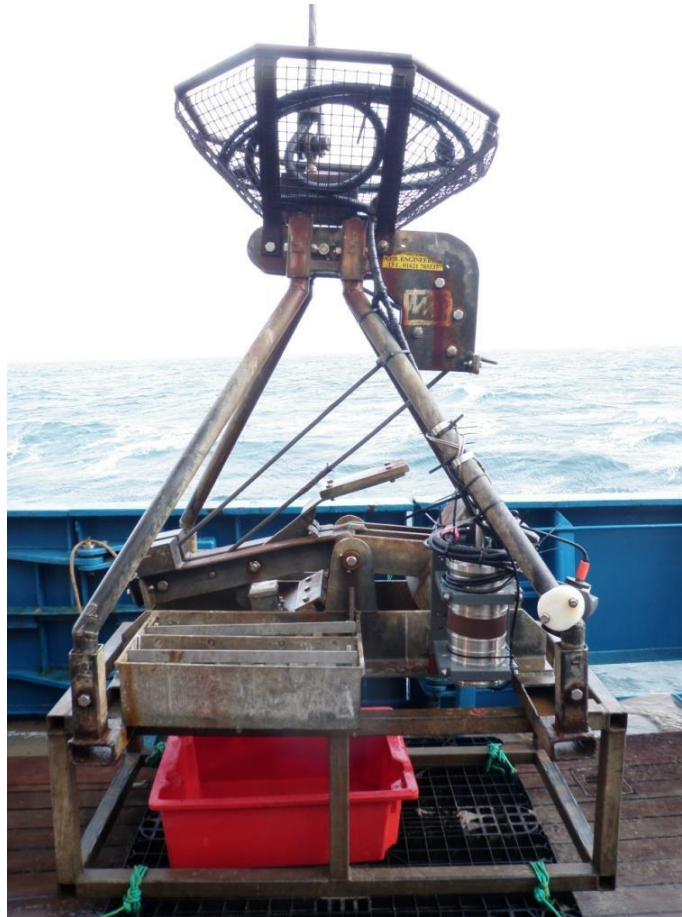


Figure 3. Mini Hamon grab with video camera (HamCam).

The camera sledge system comprised a video camera with capability to also capture still images (Figure 4). Illumination was provided by two Cefas high intensity LED striplights and a flash unit. The camera was fitted with a four-spot laser-scaling device to provide a reference scale in the video image. Set-up and operation followed the MESH 'Recommended Operating Guidelines (ROG) for underwater video and photographic imaging techniques'. Video was recorded simultaneously to a Sony GV-HD700 DV tape recorded and a computer hard drive. A video overlay was used to provide station metadata, time and GPS position (of the vessel) in the recorded video image.

Camera tows lasted a minimum of 10 minutes, with the sledge being towed at ~ 0.5 knots ($\sim 0.25\text{ms}^{-1}$) across a 50 m 'bullring' centred on the sampling station. Stills images were captured at regular one-minute intervals and opportunistically if specific features of interest were encountered. The sledge was controlled by a winch operator with sight of the video monitor and note made of the amount of tow cable deployed to allow a 'lay back' to be applied to estimate the distance of the sledge behind the vessel.

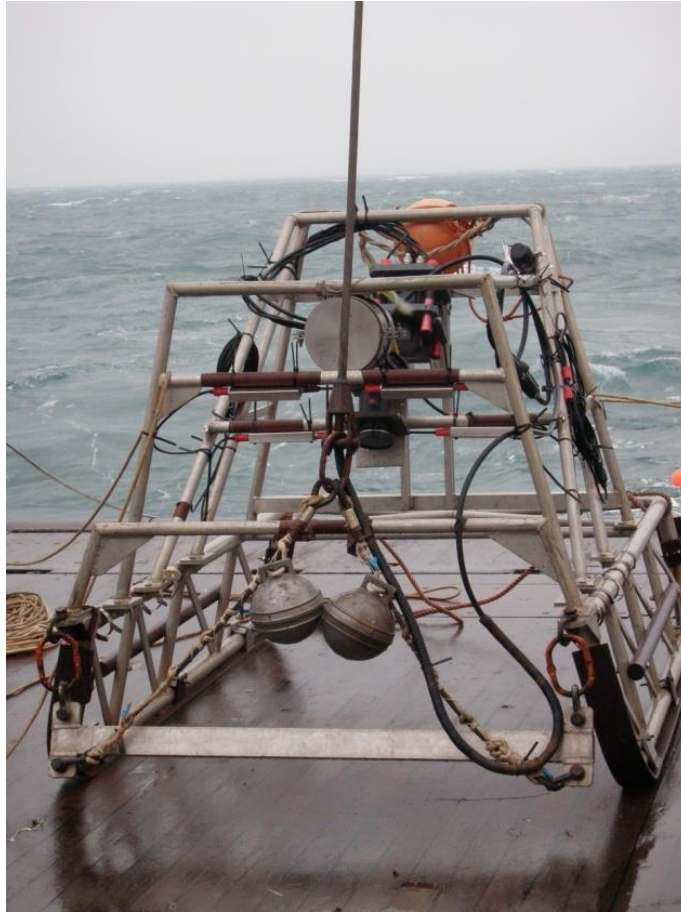


Figure 4. Camera sledge with video and still imaging system.

2.2.2 Circalittoral Rock Broad Scale Habitats

A drop-camera system was available for sampling stations where a hard substrate was predicted by the SAD or observed in the acoustic survey. The system specification was similar to that used on the camera sledge (as described above) but mounted in a rectangular drop-frame (Figure 5) and deployed from the side gantry, amidships. Deployments lasted a minimum of 10 minutes, with the vessel executing a controlled drift at ~ 0.5 knots ($\sim 0.25 \text{ ms}^{-1}$) across a 50 m 'bullring' centred on the sampling station. Stills images were captured at regular one-minute intervals and opportunistically if specific features of interest were encountered. The height of the camera off the seabed was controlled by a winch operator with sight of the video monitor.



Figure 5. Drop camera frame fitted with video and still imaging system

3 Survey Narrative

Survey work began at the Mid St George's Channel rMCZ on 01/05/13 at 07:19 (01/05/13). On arrival at the site survey work commenced on the ground-truthing programme (Hamon grab and Drop Camera survey). To increase the number of 'regular' stills collected from this site, short (2 minute) DC deployments were carried out more frequently and in addition to the planned standard (10 minute) DC deployments. The ground-truthing survey was completed 05/05/13. In areas of the site where less than 100% multibeam data coverage existed additional Multibeam bathymetry and backscatter data were collected during transits between ground-truthing stations.

On completion of the ground-truthing survey two additional blocks of Multibeam bathymetry and backscatter data were surveyed (data not available for inclusion in this report). On completion of the acoustic survey Cefas Endeavour docked in Swansea at 15:00, 06/05/13.

4 Preliminary Results

4.1 Acoustic Maps

Acoustic data (transects between ground-truthing stations and survey acoustic survey blocks) were not processed at the time this report was written.

4.2 Ground-Truthing survey

Map showing hamon grab deployments at Mid St Georges Channel rMCZ

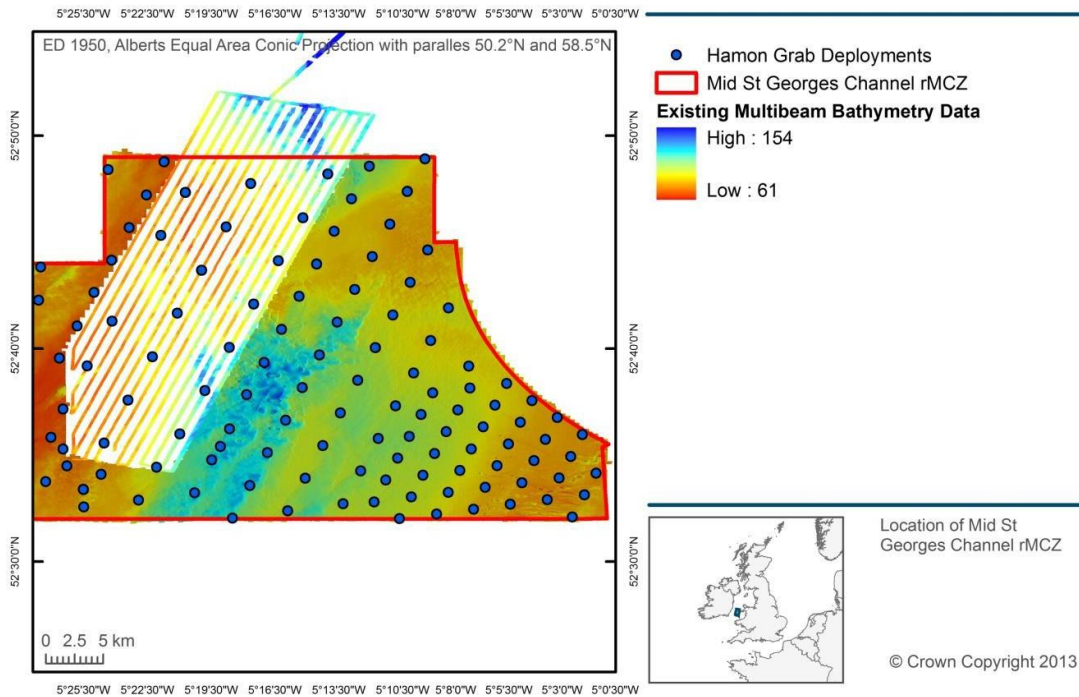


Figure 6. Map showing the position of Hamon grab samples collected during the ground-truthing survey at Mid St George's Channel rMCZ.

Map showing all drop camera deployments at Mid St Georges Channel rMCZ

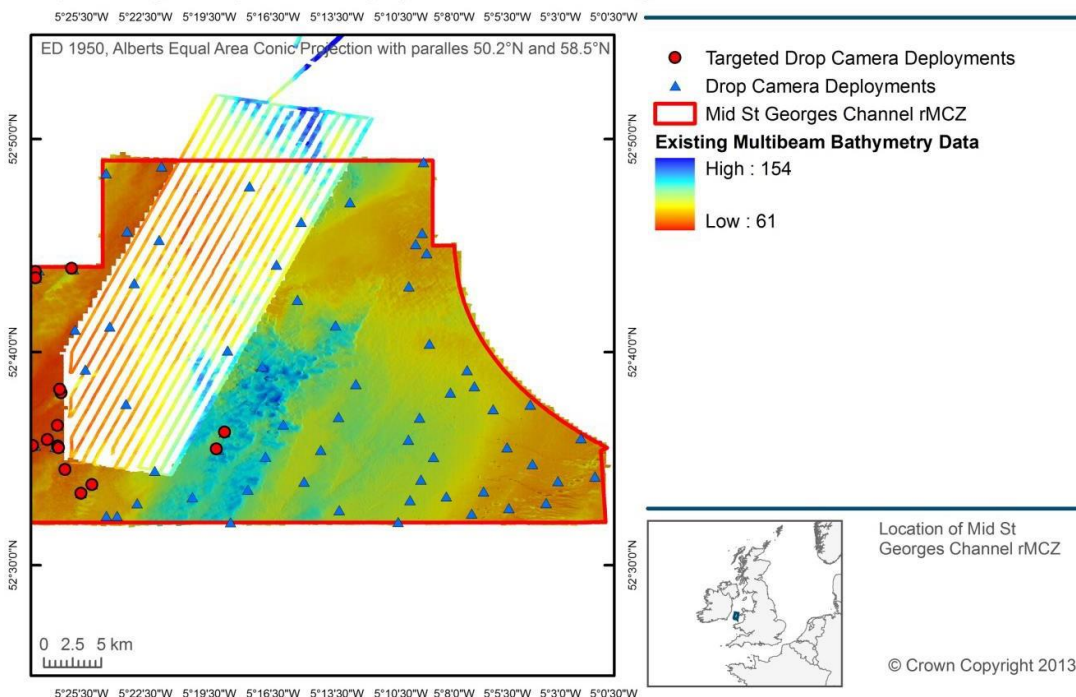
















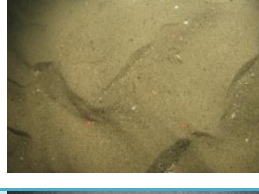















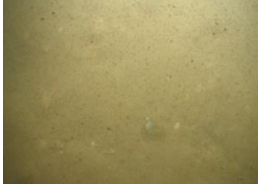














Figure 7. Map showing the position of Drop Camera deployments carried out during the ground-truthing survey at Mid St George's Channel rMCZ.

























4.3 Seabed Imagery
























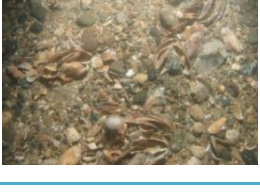
Table 3. representative still images taken during DC and HC deployments at Mid St Georges Channel rMCZ.





















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MSGC_CEND0513_MS GC005_STN_476			
MSGC_CEND0513_MS GC006_STN_526			
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MSGC_CEND0513_MS GC014_STN_471			
MSGC_CEND0513_MS GC015_STN_442			














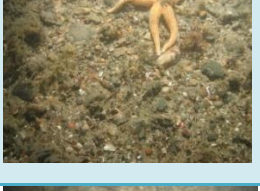








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MSGC_CEND0513_MS GC021_STN_467			
MSGC_CEND0513_MS GC028_STN_463			
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MSGC_CEND0513_MS GC032_STN_460			
MSGC_CEND0513_MS GC036_STN_456			
MSGC_CEND0513_MS GC039_STN_497			

Station Code	Still Image 1	Still Image 2	Still Image 3
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MSGC_CEND0513_MS GC044_STN_372			
MSGC_CEND0513_MS GC045_STN_329			
MSGC_CEND0513_MS GC050_STN_333			
MSGC_CEND0513_MS GC052_STN_322			
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MSGC_CEND0513_MS GC060_STN_510			
MSGC_CEND0513_MS GC062_STN_424			

Station Code	Still Image 1	Still Image 2	Still Image 3
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MSGC_CEND0513_MS GC075_STN_479			
MSGC_CEND0513_MS GC078_STN_343			
MSGC_CEND0513_MS GC080_STN_393			
MSGC_CEND0513_MS GC081_STN_357			
MSGC_CEND0513_MS GC082_STN_345			



















Station Code	Still Image 1	Still Image 2	Still Image 3
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MSGC_CEND0513_MS GC084_STN_386			
MSGC_CEND0513_MS GC085_STN_347			
MSGC_CEND0513_MS GC089_STN_349			
MSGC_CEND0513_MS GC090_STN_309		HamCam station – no further images	HamCam station – no further images
MSGC_CEND0513_MS GC092_STN_389			
MSGC_CEND0513_MS GC094_STN_312		HamCam station – no further images	HamCam station – no further images
MSGC_CEND0513_MS GC096_STN_406			

















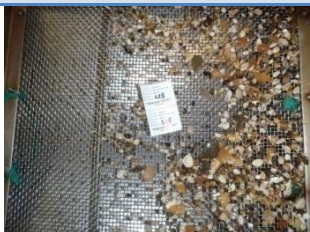




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MSGC_CEND0513_MS GC104_STN_400			
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MSGC_CEND0513_MS GC108_STN_338			
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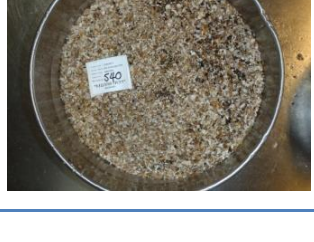
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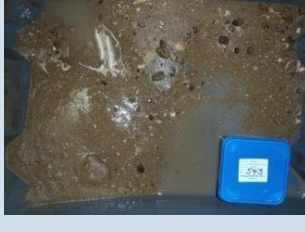











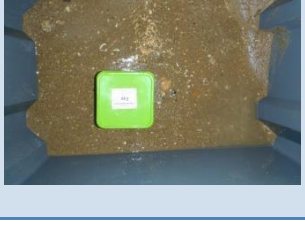
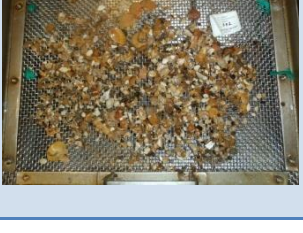

4.4 Grab samples and sediment types



















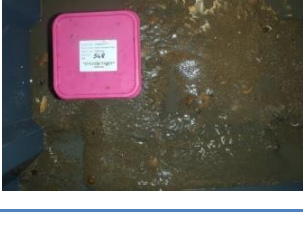


Table 4. Photographs of the total grab samples, >5mm and >1mm fractions

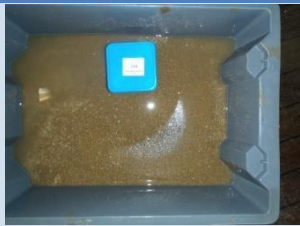





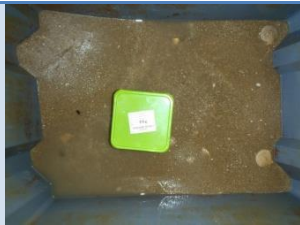














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MSGC_CEND0513_MS GC005_STN_477_A1			
MSGC_CEND0513_MS GC006_STN_527_A1			






















Station Code	Total sample	>5 mm fraction	>1 mm fraction
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Station Code	Total sample	>5 mm fraction	>1 mm fraction
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MSGC_CEND0513_MS GC016_STN_536_A1			
MSGC_CEND0513_MS GC017_STN_469_A1			
MSGC_CEND0513_MS GC018_STN_440_A1			
MSGC_CEND0513_MS GC019_STN_539_A1			
MSGC_CEND0513_MS GC020_STN_540_A1			

Station Code	Total sample	>5 mm fraction	>1 mm fraction
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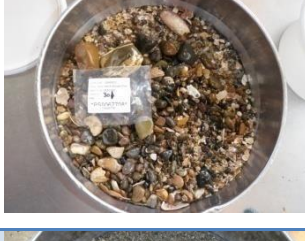






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Station Code	Total sample	>5 mm fraction	>1 mm fraction
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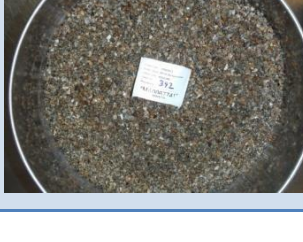
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MSGC_CEND0513_MS GC056_STN_303_A1			
MSGC_CEND0513_MS GC057_STN_508_A1_ PSA			






















MSGC_CEND0513_MS
GC059_STN_304_A2
























Station Code	Total sample	>5 mm fraction	>1 mm fraction
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MSGC_CEND0513_MS GC063_STN_301_A2			
MSGC_CEND0513_MS GC064_STN_512_A1			
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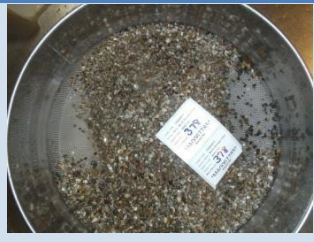

















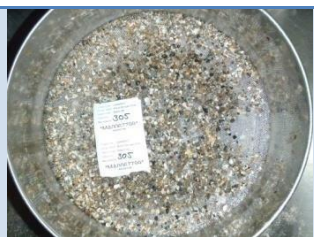
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Station Code	Total sample	>5 mm fraction	>1 mm fraction
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MSGC_CEND0513_MS GC085_STN_348_A1			
MSGC_CEND0513_MS GC086_STN_314_A1			
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Station Code	Total sample	>5 mm fraction	>1 mm fraction
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MSGC_CEND0513_MS GC099_STN_403_A3			
MSGC_CEND0513_MS GC100_STN_369_A1			
MSGC_CEND0513_MS GC101_STN_420_A1		No Image Available	

Station Code	Total sample	>5 mm fraction	>1 mm fraction
MSGC_CEND0513_MS GC102_STN_378_A1			
MSGC_CEND0513_MS GC104_STN_401_A1			
MSGC_CEND0513_MS GC105_STN_365_A1			
MSGC_CEND0513_MS GC106_STN_319_A1			
MSGC_CEND0513_MS GC107_STN_380_A1			
MSGC_CEND0513_MS GC108_STN_339_A3			
MSGC_CEND0513_MS GC109_STN_305_A3			




Station Code	Total sample	>5 mm fraction	>1 mm fraction
MSGC_CEND0513_MS GC110_STN_363_A1			
MSGC_CEND0513_MS GC111_STN_317_A1			
MSGC_CEND0513_MS GC112_STN_342_A1			
MSGC_CEND0513_MS GC113_STN_306_A1			
MSGC_CEND0513_MS GC114_STN_315_A3			
MSGC_CEND0513_MS GC115_STN_308_A1			

Preliminary observations of the sediments collected during the ground-truthing survey (Tables 3 and 4) identified high and moderate energy rock, coarse and mixed sediments. It should be emphasised that this assignment of EUNIS classification is purely subjective and could change as a result of subsequent laboratory analysis and interpretation.

4.4.1 Cobble Analysis

Table 5. Images of cobbles retained from Hamon grab samples for cobble analysis

Station code	Cobble 1	Cobble 2	Cobble 3	Cobble 4	Cobble 5	Cobble 6
MSGC_CEND0513_MSGC056_STN_303_A1						
MSGC_CEND0513_MSGC109_STN_305_A3						
MSGC_CEND0513_MSGC090_STN_309_A1						
MSGC_CEND0513_MSGC111_STN_317_A1						

Station code	Cobble 1	Cobble 2	Cobble 3	Cobble 4	Cobble 5	Cobble 6
MSGC_CEND0513_MSGC094_STN_312_A2						
MSGC_CEND0513_MSGC111_STN_317_A1						

5. Annexes

5.1. RV Cefas Endeavour



Port of registry	Lowestoft
Length OA	73.00 m (excluding stern roller)
Length extreme	73.916 m
Breadth (MLD)	15.80 m
Depth (MLD)	8.20 m
Design draft	5.00 m
Deep draught	5.50 m
LBP	66.50 m
Gross tonnage	2983 tonnes
Net register tonnage	894 tonnes
Net lightship	2436 tonnes
Deadweight @ 5.00 m	784 tonnes
Deadweight @ 5.50 m	1244 tonnes
Displacement @ 5.00 m	3210 tonnes
Displacement @ 5.50 m	3680 tonnes
Builder	Ferguson Shipbuilders Limited, Port Glasgow
Commissioned	2003
Communications	In port BT Tel. Cellphone Voice/Fax/Data Radio TELEX Inmarsat C Fleet 77 (Inmarsat F) and VSAT (eutelsat) internet access
Endurance	42 days
Complement	En-suite accommodation for 16 crew and 19 scientists with dedicated hospital facility
Propulsion System	AC/DC Diesel Electric 3 x diesel electric AC generators, individually raft mounted 2 x tandem electric DC motors Single screw
Power generation	3240 Kw
Power propulsion	2230 Kw
Thrusters	Bow thruster (flush mounted azimuthing) Stern thruster (tunnel)
Trial speed	14.4 knots
Bollard pull	29 tonnes
Call sign	VQHF3
Official number	906938
MMSI	235005270

Lloyds/IMO number	9251107
Side Gantry	7.5 tonne articulated side A-frame
Stern Gantry	25 tonne stern A-frame
Winches	3 x cranes 35 tM, heave compensated 2 x trawl winches 2 x drum winches, (1 double) Double barrel survey winch with motion compensation and slip rings Double barrel survey winch with slip rings Double barrel towing winch with slip rings Side-scan sonar winch with slip rings 3 x Gilson winches (one fitted to stern A-frame)
Transducers/Sea tube	Drop keel to deploy transducers outside the hull boundary layer in addition to hull mounted transducers 1.2 m diameter sea tube/moon-pool
Acoustic equipment	Kongsberg Simrad: HiPAP 500 positioning sonar EK60, 38/120 kHz scientific sounder EA 600, 50/200 kHz scientific sounder Scanmar net mensuration system SH80 high frequency omni- directional sonar EM3002 swathe bathymetry sounder Hull mounted Scanmar fishing computer transducers
Boats	2 x 8m rigid work and rescue boats with suite of navigational equipment deployed on heave-compensated davits
Laboratories	8 networked laboratories designed for optimum flexibility of purpose 4 serviced deck locations for containerised laboratories
Special features	Dynamic positioning system Intering anti-roll system Local Area Network with scientific data management system Ship-wide general information system CCTV
Class	LRS 100A1+LMC UMS SCM CCS ICC IP ES(2) DP(CM) ICE class 2

5.2. Camera sledge and Drop Camera

Flash model: Kongsberg 11-242

Underwater lights – Cefas high power LED strip lights

Video and stills camera settings variable depending on underwater visibility and ambient light levels.

5.3. Positioning Software-Tower

Vessel offsets are defined from the pitch roll centre of the vessel – the Common Reference Point (CRP) used by the Tower CEMAP software to calculate offsets.

5.4. Multibeam Bathymetry

Model: Kongsberg EM3002D

Frequency: 300kHz; swathe width variable running in hi res equidistant mode

Latency correction not determined – 1pps synchronised time system utilised on vessel.

5.5.Metadata

Station metadata for the North St George's Channel rMCZ survey on CEND 03/12 are provided below. Stn No is a sequential event number for the cruise, so changes each time a new gear is used or a new location sampled. Stn Code is used to identify the sampling location. CTD=Conductivity, Temperature, Depth micrologger, MB=Multibeam, HC=HamCam, CS=Camera Sledge, DC=Drop Camera.

5.5.1. HamCam

Cruise	Date	Stn No	Stn Code	Attempt	Gear	Lat(degrees)	Long (degrees)
CEND0513	010513	301	MSGC063	A1	HG	52.81315	-5.36153
CEND0513	010513	301	MSGC063	A2	HG	52.81315	-5.36154
CEND0513	010513	301	MSGC063	A3	HG	52.81289	-5.36168
CEND0513	010513	303	MSGC056	A1	HG	52.80684	-5.40551
CEND0513	010513	304	MSGC059	A1	HG	52.78703	-5.37552
CEND0513	010513	304	MSGC059	A2	HG	52.78703	-5.37552
CEND0513	010513	305	MSGC109	A1	HG	52.78883	-5.34502
CEND0513	010513	305	MSGC109	A2	HG	52.78883	-5.34502
CEND0513	010513	305	MSGC109	A3	HG	52.78883	-5.34516
CEND0513	010513	306	MSGC113	A1	HC	52.79588	-5.29386
CEND0513	010513	308	MSGC115	A1	HC	52.80334	-5.23352
CEND0513	010513	309	MSGC090	A1	HG	52.80949	-5.20101
CEND0513	010513	311	MSGC095	A1	HC	52.81514	-5.15731
CEND0513	010513	312	MSGC094	A1	HC	52.78981	-5.171
CEND0513	010513	312	MSGC094	A2	HG	52.78969	-5.17129
CEND0513	010513	314	MSGC086	A1	HG	52.78395	-5.21483
CEND0513	010513	315	MSGC114	A1	HG	52.76907	-5.25284
CEND0513	010513	315	MSGC114	A2	HG	52.76909	-5.25288
CEND0513	010513	315	MSGC114	A3	HC	52.76901	-5.25289
CEND0513	010513	317	MSGC111	A1	HG	52.76194	-5.31318
CEND0513	010513	319	MSGC106	A1	HG	52.75525	-5.36415
CEND0513	010513	320	MSGC055	A1	HG	52.76147	-5.38914
CEND0513	010513	323	MSGC052	A1	HG	52.73589	-5.40288
CEND0513	010513	326	MSGC124	A1	HG	52.73048	-5.45834
CEND0513	010513	326	MSGC124	A2	HG	52.73047	-5.45833
CEND0513	010513	326	MSGC124	A3	HG	52.73047	-5.45832
CEND0513	020513	330	MSGC045	A1	HG	52.7045	-5.45999
CEND0513	020513	334	MSGC050	A1	HG	52.71067	-5.41655
CEND0513	020513	339	MSGC108	A1	HG	52.728	-5.33232
CEND0513	020513	339	MSGC108	A2	HG	52.72801	-5.33235
CEND0513	020513	339	MSGC108	A3	HG	52.72806	-5.33233
CEND0513	020513	342	MSGC112	A1	HG	52.73551	-5.27218
CEND0513	020513	344	MSGC078	A1	HG	52.73303	-5.24216
CEND0513	020513	344	MSGC078	A2	HG	52.73304	-5.24217
CEND0513	020513	344	MSGC078	A3	HG	52.73284	-5.24219
CEND0513	020513	346	MSGC082	A1	HG	52.75854	-5.22848
CEND0513	020513	348	MSGC085	A1	HG	52.73862	-5.19868

Mid St George's Channel rMCZ Survey Report CEND0513

Cruise	Date	Stn No	Stn Code	Attempt	Gear	Lat(degrees)	Long(degrees)
CEND0513	020513	350	MSGC089	A1	HG	52.764	-5.18481
CEND0513	020513	354	MSGC093	A1	HG	52.74395	-5.15509
CEND0513	020513	355	MSGC088	A1	HG	52.71851	-5.16885
CEND0513	020513	358	MSGC081	A1	HG	52.71302	-5.21233
CEND0513	020513	358	MSGC081	A2	HG	52.713	-5.21236
CEND0513	020513	359	MSGC074	A1	HG	52.70763	-5.25593
CEND0513	020513	363	MSGC110	A1	HG	52.70151	-5.29147
CEND0513	020513	365	MSGC105	A1	HG	52.69436	-5.3514
CEND0513	020513	365	MSGC105	A2	HG	52.69436	-5.3514
CEND0513	020513	369	MSGC100	A1	HG	52.68816	-5.40242
CEND0513	020513	370	MSGC047	A1	HG	52.68437	-5.4298
CEND0513	020513	373	MSGC044	A1	HG	52.65924	-5.4437
CEND0513	020513	374	MSGC098	A1	HG	52.65318	-5.4219
CEND0513	020513	378	MSGC102	A1	HG	52.66029	-5.37083
CEND0513	020513	380	MSGC107	A1	HG	52.66766	-5.31069
CEND0513	030513	383	MSGC070	A1	HG	52.68167	-5.26969
CEND0513	030513	384	MSGC077	A1	HG	52.68734	-5.2262
CEND0513	030513	384	MSGC077	A2	HG	52.68734	-5.22617
CEND0513	030513	387	MSGC084	A1	HG	52.69301	-5.18248
CEND0513	030513	388	MSGC092	A1	HG	52.69851	-5.13898
CEND0513	030513	388	MSGC092	A2	HG	52.6985	-5.139
CEND0513	030513	391	MSGC087	A1	HG	52.67295	-5.15291
CEND0513	030513	391	MSGC087	A2	HG	52.67295	-5.1529
CEND0513	030513	391	MSGC087	A3	HG	52.67286	-5.15293
CEND0513	030513	392	MSGC080	A1	HG	52.66744	-5.19612
CEND0513	030513	392	MSGC080	A2	HG	52.66745	-5.19619
CEND0513	030513	395	MSGC073	A1	HG	52.66175	-5.23999
CEND0513	030513	395	MSGC073	A2	HG	52.66175	-5.24
CEND0513	030513	396	MSGC066	A1	HG	52.65588	-5.28322
CEND0513	030513	401	MSGC104	A1	HG	52.63384	-5.32982
CEND0513	030513	403	MSGC099	A1	HG	52.62633	-5.39
CEND0513	030513	403	MSGC099	A2	HG	52.62634	-5.39
CEND0513	030513	403	MSGC099	A3	HG	52.62624	-5.38989
CEND0513	030513	407	MSGC096	A1	HG	52.6193	-5.44096
CEND0513	030513	410	MSGC119	A1	HG	52.59711	-5.45036
CEND0513	030513	410	MSGC119	A2	HG	52.5971	-5.45035
CEND0513	030513	410	MSGC119	A3	HG	52.59711	-5.45033
CEND0513	030513	414	MSGC041	A1	HG	52.588	-5.44086
CEND0513	030513	416	MSGC097	A1	HG	52.59273	-5.40871
CEND0513	030513	420	MSGC101	A1	HG	52.59984	-5.34934
CEND0513	030513	422	MSGC132	A1	HG	52.60374	-5.31046
CEND0513	030513	425	MSGC062	A1	HG	52.63055	-5.2971
CEND0513	030513	426	MSGC065	A1	HG	52.61064	-5.2665
CEND0513	030513	426	MSGC065	A2	HG	52.61062	-5.26654
CEND0513	030513	426	MSGC065	A3	HG	52.61065	-5.2665
CEND0513	030513	429	MSGC069	A1	HG	52.63618	-5.25353
CEND0513	040513	430	MSGC072	A1	HG	52.61638	-5.22366

Mid St George's Channel rMCZ Survey Report CEND0513

Cruise	Date	Stn No	Stn Code	Attempt	Gear	Lat(degrees)	Long(degrees)
CEND0513	040513	433	MSGC076	A1	HG	52.64184	-5.20999
CEND0513	040513	434	MSGC079	A1	HG	52.62184	-5.18033
CEND0513	040513	434	MSGC079	A2	HG	52.62183	-5.18034
CEND0513	040513	437	MSGC011	A1	HG	52.615	-5.16044
CEND0513	040513	440	MSGC018	A1	HG	52.6186	-5.13151
CEND0513	040513	441	MSGC015	A1	HG	52.63202	-5.15125
CEND0513	040513	444	MSGC083	A1	HG	52.64751	-5.16633
CEND0513	040513	446	MSGC022	A1	HG	52.6357	-5.12212
CEND0513	040513	449	MSGC091	A1	HG	52.653	-5.12301
CEND0513	040513	450	MSGC029	A1	HG	52.63933	-5.09329
CEND0513	040513	453	MSGC025	A1	HG	52.62233	-5.10249
CEND0513	040513	454	MSGC033	A1	HG	52.62599	-5.07354
CEND0513	040513	457	MSGC036	A1	HG	52.61267	-5.05368
CEND0513	040513	458	MSGC038	A1	HG	52.59934	-5.03398
CEND0513	040513	461	MSGC032	A1	HG	52.59565	-5.06301
CEND0513	040513	462	MSGC028	A1	HG	52.609	-5.08266
CEND0513	040513	465	MSGC024	A1	HG	52.59199	-5.0919
CEND0513	040513	466	MSGC021	A1	HG	52.60541	-5.11167
CEND0513	040513	469	MSGC017	A1	HG	52.58811	-5.12104
CEND0513	040513	470	MSGC014	A1	HG	52.60171	-5.14072
CEND0513	040513	473	MSGC010	A1	HG	52.58453	-5.14981
CEND0513	040513	474	MSGC008	A1	HG	52.59789	-5.16958
CEND0513	040513	477	MSGC005	A1	HG	52.58094	-5.17883
CEND0513	040513	478	MSGC075	A1	HG	52.59632	-5.19394
CEND0513	040513	482	MSGC068	A1	HG	52.59081	-5.23739
CEND0513	040513	483	MSGC061	A1	HG	52.58516	-5.28083
CEND0513	050513	486	MSGC131	A1	HG	52.58998	-5.31753
CEND0513	050513	487	MSGC054	A1	HG	52.57949	-5.3244
CEND0513	050513	487	MSGC054	A2	HG	52.5795	-5.3244
CEND0513	050513	490	MSGC049	A1	HG	52.57383	-5.36767
CEND0513	050513	490	MSGC049	A2	HG	52.57383	-5.36769
CEND0513	050513	491	MSGC043	A1	HG	52.5682	-5.411
CEND0513	050513	495	MSGC135	A1	HG	52.57492	-5.43777
CEND0513	050513	496	MSGC039	A1	HG	52.5626	-5.45444
CEND0513	050513	496	MSGC039	A2	HG	52.56257	-5.45446
CEND0513	050513	496	MSGC039	A3	HG	52.56257	-5.45447
CEND0513	050513	499	MSGC133	A1	HG	52.55635	-5.42488
CEND0513	050513	499	MSGC133	A2	HG	52.5564	-5.42503
CEND0513	050513	500	MSGC040	A1	HG	52.54265	-5.42459
CEND0513	050513	500	MSGC040	A2	HG	52.54266	-5.42459
CEND0513	050513	500	MSGC040	A3	HG	52.54265	-5.42459
CEND0513	050513	503	MSGC046	A1	HG	52.54813	-5.38167
CEND0513	050513	504	MSGC051	A1	HG	52.55383	-5.33786
CEND0513	050513	504	MSGC051	A2	HG	52.55382	-5.33787
CEND0513	050513	504	MSGC051	A3	HG	52.55382	-5.33788
CEND0513	050513	507	MSGC053	A1	HG	52.53397	-5.30815
CEND0513	050513	507	MSGC053	A2	HG	52.53397	-5.30814

Mid St George's Channel rMCZ Survey Report CEND0513

Cruise	Date	Stn No	Stn Code	Attempt	Gear	Lat(degrees)	Long (degrees)
CEND0513	050513	507	MSGC053	A3	HG	52.53398	-5.30814
CEND0513	050513	508	MSGC057	A1	HG	52.5595	-5.29449
CEND0513	050513	511	MSGC060	A1	HG	52.53967	-5.26483
CEND0513	050513	512	MSGC064	A1	HG	52.56514	-5.25116
CEND0513	050513	515	MSGC067	A1	HG	52.54518	-5.22149
CEND0513	050513	516	MSGC071	A1	HG	52.57086	-5.20768
CEND0513	050513	516	MSGC071	A2	HG	52.57086	-5.2077
CEND0513	050513	519	MSGC003	A1	HG	52.5638	-5.18797
CEND0513	050513	520	MSGC004	A1	HG	52.55057	-5.1681
CEND0513	050513	523	MSGC001	A1	HG	52.54669	-5.19716
CEND0513	050513	524	MSGC002	A1	HG	52.53351	-5.17733
CEND0513	050513	527	MSGC006	A1	HG	52.53722	-5.14825
CEND0513	050513	528	MSGC012	A1	HG	52.54083	-5.11935
CEND0513	050513	531	MSGC009	A1	HG	52.5542	-5.13918
CEND0513	050513	532	MSGC007	A1	HG	52.56749	-5.159
CEND0513	050513	535	MSGC013	A1	HG	52.57133	-5.12998
CEND0513	050513	535	MSGC013	A2	HG	52.57124	-5.13002
CEND0513	050513	535	MSGC013	A3	HG	52.57125	-5.13001
CEND0513	060513	536	MSGC016	A1	HG	52.55802	-5.11015
CEND0513	060513	539	MSGC019	A1	HG	52.54484	-5.09046
CEND0513	060513	540	MSGC020	A1	HG	52.57495	-5.10092
CEND0513	060513	543	MSGC023	A1	HG	52.56168	-5.08133
CEND0513	060513	544	MSGC026	A1	HG	52.54834	-5.06149
CEND0513	060513	547	MSGC030	A1	HG	52.53474	-5.04194
CEND0513	060513	548	MSGC034	A1	HG	52.55214	-5.03249
CEND0513	060513	551	MSGC031	A1	HG	52.56532	-5.05229
CEND0513	060513	552	MSGC027	A1	HG	52.57888	-5.07194
CEND0513	060513	555	MSGC035	A1	HG	52.58214	-5.04321
CEND0513	060513	556	MSGC037	A1	HG	52.56921	-5.02328

5.5.2. Drop Camera

Cruise	Date	Stn No.	Stn Code	Gear	SOL Lat	SOL Long	EOL Lat	EOL Long
CEND0513	01/05/2013	300	MSGC063	DC	52.81193	-5.36219	52.8128	-5.36179
CEND0513	01/05/2013	302	MSGC056	DC	52.8066	-5.40568	52.80738	-5.40516
CEND0513	01/05/2013	307	MSGC113	DC	52.79635	-5.29352	52.79624	-5.29207
CEND0513	01/05/2013	310	MSGC095	DC	52.81528	-5.15731	52.81435	-5.15729
CEND0513	01/05/2013	313	MSGC086	DC	52.78388	-5.21486	52.78471	-5.21466
CEND0513	01/05/2013	316	MSGC114	DC	52.76854	-5.25306	52.76957	-5.25295
CEND0513	01/05/2013	318	MSGC106	DC	52.75449	-5.3642	52.75558	-5.36437
CEND0513	01/05/2013	321	MSGC055	DC	52.76122	-5.38929	52.76222	-5.38896
CEND0513	01/05/2013	324	MSGC126	DC	52.73158	-5.43116	52.73235	-5.43264
CEND0513	01/05/2013	325	MSGC124	DC	52.73061	-5.45831	52.72993	-5.46085
CEND0513	02/05/2013	327	MSGC123	DC	52.72801	-5.46522	52.72658	-5.46755
CEND0513	02/05/2013	328	MSGC125	DC	52.72513	-5.46062	52.72496	-5.45792
CEND0513	02/05/2013	336	MSGC103	DC	52.72062	-5.38364	52.72143	-5.38363
CEND0513	02/05/2013	341	MSGC112	DC	52.73509	-5.27233	52.736	-5.27198
CEND0513	02/05/2013	351	MSGC138	DC	52.75992	-5.15833	52.75888	-5.15779
CEND0513	02/05/2013	352	MSGC139	DC	52.75117	-5.16346	52.75007	-5.16333
CEND0513	02/05/2013	353	MSGC093	DC	52.74404	-5.15488	52.74333	-5.15509
CEND0513	02/05/2013	356	MSGC088	DC	52.71818	-5.16878	52.7172	-5.16912
CEND0513	02/05/2013	360	MSGC074	DC	52.70759	-5.25587	52.70668	-5.25621
CEND0513	02/05/2013	368	MSGC100	DC	52.68679	-5.4028	52.68785	-5.40256
CEND0513	02/05/2013	371	MSGC047	DC	52.68424	-5.42996	52.68515	-5.4305
CEND0513	02/05/2013	375	MSGC098	DC	52.65311	-5.422	52.65399	-5.42159
CEND0513	02/05/2013	381	MSGC107	DC	52.668	-5.31063	52.66722	-5.31058
CEND0513	03/05/2013	385	MSGC077	DC	52.68766	-5.22609	52.68701	-5.22641
CEND0513	03/05/2013	390	MSGC087	DC	52.67333	-5.15276	52.67249	-5.15301
CEND0513	03/05/2013	397	MSGC066	DC	52.65568	-5.28351	52.65645	-5.28352
CEND0513	03/05/2013	404	MSGC099	DC	52.62611	-5.39011	52.62696	-5.38999
CEND0513	03/05/2013	408	MSGC120	DC	52.60934	-5.44369	52.608	-5.44614
CEND0513	03/05/2013	409	MSGC119	DC	52.59801	-5.45142	52.59721	-5.45039
CEND0513	03/05/2013	411	MSGC118	DC	52.59363	-5.46116	52.59377	-5.4627
CEND0513	03/05/2013	412	MSGC116	DC	52.59269	-5.44553	52.59311	-5.44426
CEND0513	03/05/2013	413	MSGC117	DC	52.59198	-5.44274	52.59121	-5.4402
CEND0513	03/05/2013	423	MSGC132	DC	52.60396	-5.31296	52.60352	-5.31114
CEND0513	03/05/2013	427	MSGC065	DC	52.61001	-5.26698	52.61039	-5.26714
CEND0513	04/05/2013	432	MSGC076	DC	52.64163	-5.21015	52.64098	-5.21084
CEND0513	04/05/2013	438	MSGC011	DC	52.6154	-5.16028	52.6146	-5.16082
CEND0513	04/05/2013	445	MSGC137	DC	52.63506	-5.13622	52.63602	-5.13401
CEND0513	04/05/2013	447	MSGC136	DC	52.64011	-5.11748	52.64081	-5.11924
CEND0513	04/05/2013	448	MSGC091	DC	52.65253	-5.12317	52.65334	-5.12305
CEND0513	04/05/2013	452	MSGC025	DC	52.62194	-5.10279	52.62269	-5.10213
CEND0513	04/05/2013	455	MSGC033	DC	52.6256	-5.07368	52.62627	-5.07347
CEND0513	04/05/2013	459	MSGC038	DC	52.59931	-5.03401	52.6004	-5.03381
CEND0513	04/05/2013	464	MSGC024	DC	52.59223	-5.09184	52.59122	-5.09206
CEND0513	04/05/2013	472	MSGC010	DC	52.58474	-5.14946	52.58419	-5.15057
CEND0513	04/05/2013	475	MSGC008	DC	52.59814	-5.16916	52.59742	-5.17002

Mid St George's Channel rMCZ Survey Report CEND0513

Cruise	Date	Stn No.	Stn Code	Gear	SOL Lat	SOL Long	EOL Lat	EOL Long
CEND0513	04/05/2013	480	MSGC072	DC	52.6159	- 5.22383	52.6168	-5.22377
CEND0513	04/05/2013	481	MSGC068	DC	52.5903	-5.2377	52.59112	-5.23734
CEND0513	04/05/2013	484	MSGC061	DC	52.58478	-5.281	52.58562	-5.28082
CEND0513	04/05/2013	485	MSGC131	DC	52.5904	- 5.31772	52.59087	-5.31923
CEND0513	05/05/2013	489	MSGC049	DC	52.57379	- 5.36768	52.57311	-5.36836
CEND0513	05/05/2013	493	MSGC134	DC	52.56315	- 5.41668	52.56159	-5.4165
CEND0513	05/05/2013	494	MSGC135	DC	52.53862	- 5.40552	52.57493	-5.43768
CEND0513	05/05/2013	498	MSGC133	DC	52.55632	- 5.42526	52.55476	-5.42452
CEND0513	05/05/2013	501	MSGC040	DC	52.53863	- 5.39707	52.54196	-5.42506
CEND0513	05/05/2013	502	MSGC046	DC	52.54848	- 5.38131	52.54768	-5.38195
CEND0513	05/05/2013	505	MSGC051	DC	52.55329	- 5.33821	52.55391	-5.33794
CEND0513	05/05/2013	506	MSGC053	DC	52.53358	- 5.30839	52.53425	-5.30798
CEND0513	05/05/2013	509	MSGC057	DC	52.55904	- 5.29475	52.55992	-5.29427
CEND0513	05/05/2013	513	MSGC064	DC	52.56546	- 5.25086	52.56461	-5.25149
CEND0513	05/05/2013	514	MSGC067	DC	52.543	- 5.22325	52.54213	-5.22383
CEND0513	05/05/2013	521	MSGC004	DC	52.55092	- 5.16791	52.55	-5.16843
CEND0513	05/05/2013	525	MSGC002	DC	52.53377	- 5.17717	52.5329	-5.17768
CEND0513	05/05/2013	529	MSGC012	DC	52.54042	- 5.11963	52.54117	-5.11924
CEND0513	05/05/2013	530	MSGC009	DC	52.55371	- 5.13938	52.5545	-5.13905
CEND0513	05/05/2013	533	MSGC007	DC	52.56696	- 5.15921	52.56785	-5.15895
CEND0513	06/05/2013	537	MSGC016	DC	52.5577	- 5.11028	52.5585	-5.11001
CEND0513	06/05/2013	538	MSGC019	DC	52.54457	- 5.09052	52.54536	-5.09028
CEND0513	06/05/2013	543	MSGC026	DC	52.5485	- 5.06132	52.54773	-5.06167
CEND0513	06/05/2013	550	MSGC031	DC	52.56571	- 5.05209	52.5649	-5.05256
CEND0513	06/05/2013	553	MSGC027	DC	52.57908	- 5.07203	52.57827	-5.07248
CEND0513	06/05/2013	557	MSGC037	DC	52.56939	- 5.02322	52.56854	-5.0234

5.6.Daily Progress Reports

**DAILY LOG
STATUS REPORT
CEND 05/13 rMCZ survey
Cefas Endeavour – JNCC – DPR No. 14 – 1st May 2013**

Vessel: Cefas Endeavour GSM : 07799773456 07827237014	Project: CEND 05/13 South Dorset, East of Haig Fras, North of St George's Channel and Mid St George's Channel rMCZ survey Satellite Voice Bridge: int 871763998027 int 871600309716
Daily Progress Report No. 14 Date: 1 st May 2013	Location at 00.00: 53° 27.7'N 005° 13.7'W

To Company:	Person:	E-mail:
Cefas		
Cefas		
JNCC		
JNCC		
JNCC		
NE		
NE		
NE		

Safety

	Today	To Date
Accidents/Incidents		
Near Misses		
Safety Drills/Induction		3

Summary of operations 0000-2400

Time UTC	Type	Comments
00:00	Transit	
00:09	TOSa	NSGC157 DCA1
00:28	Transit	
00:52	TOSa	NSGC156 DCA1
01:02	Transit	
01:45	TOSa	NSGC155 DCA1
01:59	Transit	
02:33	TOSa	NSGC154 DCA1
02:46	Transit	
03:13	TOSa	NSGC153 DCA1
03:30	Transit	
07:09	TOSa	MSGC063 DCA1
07:19	Transit	
07:36	TOSa	MSGC063 HGA1
07:42	TOSa	MSGC063 HGA2
08:39	TOSa	MSGC063 HGA3
09:17	TOSa	MSGC056 DCA1
09:27	Transit	
09:39	TOSa	MSGC056 HGA1
10:18	TOSa	MSGC059 HGA1
10:24	TOSa	MSGC059 HGA2
11:02	TOSa	MSGC109 HGA1
11:12	TOSa	MSGC109 HGA2
11:24	TOSa	MSGC109 HGA3
12:00	TOSa	MSGC113 HGA1
12:18	TOSa	MSGC113 DCA1
12:29	Transit	
13:08	TOSa	MSGC115 HCA1
13:42	TOSa	MSGC090 HCA1
14:16	TOSa	MSGC095 HCA1

DAILY LOG STATUS REPORT

14:28	Transit	
14:35	TOSa	MSGC095 HGA1
15:10	TOSa	MSGC094 HCA1
15:24	TOSa	MSGC094 HCA2
16:41	TOSa	MSGC086 DCA1
16:51	Transit	
17:03	TOSa	MSGC086 HGA1
17:32	TOSa	MSGC114 HGA1
17:41	TOSa	MSGC114 HGA2
17:50	TOSa	MSGC114 HGA3
18:05	TOSa	MSGC114 DCA1
18:18	Transit	
18:48	TOSa	MSGC111 HCA1
19:23	TOSa	MSGC106 DCA1
19:35	Transit	
19:46	TOSa	MSGC106 HGA1
20:21	TOSa	MSGC055 HGA1
20:34	TOSa	MSGC055 DCA1
20:46	Transit	
21:19	TOSa	MSGC052 DCA1
21:21	Transit	
21:32	TOSa	MSGC052 HGA1
22:11	TOSa	MSGC126 DCA1
22:26	Transit	
22:55	TOSa	MSGC124 DCA1
23:16	Transit	
23:34	TOSa	MSGC124 HGA1
23:40	TOSa	MSGC124 HGA2
24:00		

Weather

Weather/sea state conditions	0000-0600	0600-1200	1200-1800	1800-2400	Remarks
	300° 14kn 1m 1037 Vis 8	Light airs	Light airs	220° 10kn 1m 1038 8	

Overall Progress

Type	Today (hh:mm)	Accum (hh:mm)		Remarks
Mob/Demob	00:00	15:15		
Offshore Calibrations	00:00	02:33		
Total Operation Survey (TOSu)	00:00	25:59		
Total Operation Sampling (TOSa)	14:25	85:04		
Equipment/Downtime	00:00	00:00		
Ship/Plant Downtime	00:00	00:00		
Waiting On Weather	00:00	04:50		
Transit	09:35	202:19		
Standby Port	00:00	00:00		
Others	00:00	00:00		
Total:	24:00	336:00		

Overall Progress Geophysical Data Acquisition MBES/Sidescan

DAILY LOG STATUS REPORT

Segment/Area/Line	Today (Lkm)	Accum. (Lkm)	Current estimated total (Lkm)	Remarks
Acoustic: Sidescan Sonar				
Gear type:	200	450	450	

Overall Progress Groundtruthing Samples

Action	Number of samples (today)	Lengths	Current total	Remarks
Hamon grab	16		68	
Camera sledge		10min	12	
Drop camera	15		253	

Weather forecast for the next 24 hours

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Planned operation for the next 24 hours (00:00 to 24:00)

Continue groundtruthing at MSGC

Agreed Changes to Scope/Survey operation priorities

No changes

Cefas/JNCC Comments

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Cefas SIC:
JNCC Rep:



**DAILY LOG
STATUS REPORT
CEND 05/13 rMCZ survey
Cefas Endeavour – JNCC – DPR No. 15 – 2nd May 2013**

Vessel: Cefas Endeavour GSM : 07799773456 07827237014	Project: CEND 05/13 South Dorset, East of Haig Fras, North of St George's Channel and Mid St George's Channel rMCZ survey Satellite Voice Bridge: int 871763998027 int 871600309716
Daily Progress Report No. 15 Date: 2 nd May 2013	Location at 00.00:

To Company:	Person:	E-mail:
Cefas		
Cefas		
JNCC		
JNCC		
JNCC		

Safety

	Today	To Date
Accidents/Incidents		
Near Misses		
Safety Drills/Induction		3

Summary of operations 0000-2400

Time UTC	Type	Comments
00:00	Transit	
00:08	TOSa	MSGC123 DCA1
00:32	Transit	
01:05	TOSa	MSGC125 DCA1
01:25	Transit	
01:58	TOSa	MSGC045 DCA1
02:00	Transit	
02:12	TOSa	MSGC045 HGA1
02:24	Calibration	MSGC045 CTDA1
02:59	Calibration	MSGC045 CTDA2
03:59	Calibration	MSGC050 CTDA1
04:12	TOSa	MSGC050 DCA1
04:14	TOSu	MBES
04:23	TOSa	MSGC050 HGA1
05:13	TOSa	MSGC103 DCA1
05:23	TOSu	MBES
05:59	TOSa	MSGC108 DCA1
06:01	Transit	
06:07	TOSa	MSGC108 HGA1
06:15	TOSa	MSGC108 HGA2
06:23	TOSa	MSGC108 HGA3
07:23	TOSa	MSGC112 DCA1
07:33	TOSu	MBES
07:43	TOSa	MSGC112 HGA1
08:15	TOSa	MSGC078 DCA1
08:17	Transit	
08:26	TOSa	MSGC078 HGA1
08:31	TOSa	MSGC078 HGA2
08:41	TOSa	MSGC078 HGA3
09:18	TOSa	MSGC082 DCA1
09:20	Transit	
09:26	TOSa	MSGC082 HGA1
10:08	TOSa	MSGC085 DCA1

DAILY LOG STATUS REPORT

10:10	Transit	
10:15	TOSa	MSGC085 HGA1
10:57	TOSa	MSGC089 DCA1
10:59	Transit	
11:09	TOSa	MSGC089 HGA1
11:43	TOSa	MSGC138 DCA1
12:00	Transit	
12:22	TOSa	MSGC139 DCA1
12:36	Transit	
13:01	TOSa	MSGC093 DCA1
13:12	Transit	
13:21	TOSa	MSGC093 HGA1
13:59	TOSa	MSGC088 HGA1
14:13	TOSa	MSGC088 DCA1
14:24	Transit	
14:58	TOSa	MSGC081 DCA1
15:01	Transit	
15:10	TOSa	MSGC081 HGA1
15:17	TOSa	MSGC081 HGA2
15:47	TOSa	MSGC074 HGA1
15:59	TOSa	MSGC074 DCA1
16:09	TOSu	MBES
16:48	TOSa	MSGC110 DCA1
16:50	TOSu	MBES
17:00	TOSa	MSGC110 HGA1
17:46	TOSa	MSGC105 HGA1
17:53	TOSa	MSGC105 HGA2
18:11	TOSa	MSGC105 DCA1
18:13	TOSu	MBES
18:59	TOSa	MSGC100 DCA1
19:10	Transit	
19:18	TOSa	MSGC100 HGA1
19:47	TOSa	MSGC047 HGA1
20:05	TOSa	MSGC047 DCA1
20:15	Transit	
20:56	TOSa	MSGC044 DCA1
20:58	Transit	
21:06	TOSa	MSGC044 HGA1
21:37	TOSa	MSGC098 HGA1
21:49	TOSa	MSGC098 DCA1
22:00	TOSu	MBES
22:39	TOSa	MSGC102 DCA1
22:41	TOSu	MBES
22:51	TOSa	MSGC102 HGA1
23:36	TOSa	MSGC107 HGA1
23:51	TOSa	MSGC107 DCA1
24:00		

Weather

Weather/sea state conditions	0000-0600	0600-1200	1200-1800	1800-2400	Remarks
	Light airs	Light airs	200° 15kn 1m 1034 Vis 8	200° 18kn 1m 1033 8	

DAILY LOG STATUS REPORT

Overall Progress

Type	Today (hh:mm)	Accum (hh:mm)		Remarks
Mob/Demob	00:00	15:15		
Offshore Calibrations	01:48	04:21		
Total Operation Survey (TOSu)	03:19	29:18		
Total Operation Sampling (TOSa)	14:15	99:19		
Equipment/Downtime	00:00	00:00		
Ship/Plant Downtime	00:00	00:00		
Waiting On Weather	00:00	04:50		
Transit	04:38	206:57		
Standby Port	00:00	00:00		
Others	00:00	00:00		
Total:	24:00	360:00		

Overall Progress Geophysical Data Acquisition MBES/Sidescan

Segment/Area/Line	Today (Lkm)	Accum. (Lkm)	Current estimated total (Lkm)	Remarks
Acoustic: Sidescan Sonar				
Gear type:	200	450	450	

Overall Progress Groundtruthing Samples

Action	Number of samples (today)	Lengths	Current total	Remarks
Hamon grab	20		88	
Camera sledge		10min	12	
Drop camera	25		278	

Weather forecast for the next 24 hours

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Planned operation for the next 24 hours (00:00 to 24:00)

Continue groundtruthing at MSGC

Agreed Changes to Scope/Survey operation priorities

No changes

Cefas/JNCC Comments

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Cefas SIC:
JNCC Rep:



**DAILY LOG
STATUS REPORT
CEND 05/13 rMCZ survey
Cefas Endeavour – JNCC – DPR No. 16 – 3th May 2013**

Vessel: Cefas Endeavour GSM : 07799773456 07827237014	Project: CEND 05/13 South Dorset, East of Haig Fras, North of St George's Channel and Mid St George's Channel rMCZ survey Satellite Voice Bridge: int 871763998027 int 871600309716
Daily Progress Report No. 16 Date: 3 rd May 2013	Location at 00.00: 52° 38.2'N 005° 15.2'W

To Company:	Person:	E-mail:
Cefas		
Cefas		
JNCC		
JNCC		
JNCC		

Safety

	Today	To Date
Accidents/Incidents		
Near Misses		
Safety Drills/Induction		3

Summary of operations 0000-2400

Time UTC	Type	Comments
00:00	TOSa	Finish MSGC107 DCA1
00:01	Transit	
00:35	TOSa	MSGC070 DCA1
00:37	Transit	
00:45	TOSa	MSGC070 HGA1
01:18	TOSa	MSGC077 HGA1
01:24	TOSa	MSGC077 HGA2
01:36	TOSa	MSGC077 DCA1
01:46	Transit	
02:16	TOSa	MSGC084 DCA1
02:18	Transit	
02:26	TOSa	MSGC084 HGA1
02:57	TOSa	MSGC092 HGA1
03:04	TOSa	MSGC092 HGA2
03:13	TOSa	MSGC092 DCA1
03:15	Transit	
03:55	TOSa	MSGC087 DCA1
04:04	Transit	
04:15	TOSa	MSGC087 HGA1
04:18	TOSa	MSGC087 DCA2
04:27	TOSa	MSGC087 DCA3
04:54	TOSa	MSGC080 HGA1
04:59	TOSa	MSGC080 HGA2
05:08	TOSa	MSGC080 DCA1
05:09	Transit	
05:35	TOSa	MSGC073 DCA1
05:37	Transit	
05:44	TOSa	MSGC073 HGA1
05:51	TOSa	MSGC073 HGA2
06:22	TOSa	MSGC066 HGA1
06:29	TOSa	MSGC066 DCA1
06:39	TOSu	MBES
07:11	TOSa	MSGC066 CTDA1

**DAILY LOG
STATUS REPORT**

08:22	TOSa	MSGC104 DCA1
08:24	TOSu	MBES
08:33	TOSa	MSGC104 HGA1
09:27	TOSa	MSGC099 HGA1
09:33	TOSa	MSGC099 HGA2
09:40	TOSa	MSGC099 HGA3
09:52	TOSa	MSGC099 DCA1
10:02	TOSu	MBES
10:48	TOSa	MSGC096 DCA1
10:50	Transit	
10:56	TOSa	MSGC096 HGA1
11:19	TOSa	MSGC120 DCA1
11:43	Transit	
12:07	TOSa	MSGC119 DCA1
12:20	Transit	
12:28	TOSa	MSGC119 HGA1
12:34	TOSa	MSGC119 HGA2
12:40	TOSa	MSGC119 HGA3
13:07	TOSa	MSGC118 DCA1
13:18	Transit	
13:45	TOSa	MSGC116 DCA1
13:56	Transit	
14:12	TOSa	MSGC117 DCA1
14:33	TOSu	MBES
15:01	TOSa	MSGC041 HGA1
15:35	TOSa	MSGC097 HGA1
15:48	TOSa	MSGC097 DCA1
15:51	TOSu	MBES
16:39	TOSa	MSGC101 DCA1
16:41	TOSu	MBES
16:50	TOSa	MSGC101 HGA1
17:20	TOSa	MSGC132 HGA1
17:43	TOSa	MSGC132 DCA1
17:58	Transit	
18:29	TOSa	MSGC062 DCA1
18:32	Transit	
18:43	TOSa	MSGC062 HGA1
19:26	TOSa	MSGC065 HGA1
19:34	TOSa	MSGC065 HGA2
19:42	TOSa	MSGC065 HGA3
20:22	TOSa	MSGC065 DCA1
20:32	Transit	
23:20	TOSa	MSGC069 DCA1
23:22	Transit	
23:30	TOSa	MSGC069 HGA1
24:00		

Weather

Weather/sea state conditions	0000-0600	0600-1200	1200-1800	1800-2400	Remarks
	230° 13kn	230° 25	220° 23	220° 29	
	1m	2m	2m	2m	
	1030	1030	1027	1025	
	8	7	7	7	

DAILY LOG STATUS REPORT

Overall Progress

Type	Today (hh:mm)	Accum (hh:mm)		Remarks
Mob/Demob	00:00	15:15		
Offshore Calibrations	00:00	04:21		
Total Operation Survey (TOSu)	02:52	32:10		
Total Operation Sampling (TOSa)	13:25	112:44		
Equipment/Downtime	00:00	00:00		
Ship/Plant Downtime	00:00	00:00		
Waiting On Weather	00:00	04:50		
Transit	07:43	214:40		
Standby Port	00:00	00:00		
Others	00:00	00:00		
Total:	24:00	384:00		

Overall Progress Geophysical Data Acquisition MBES/Sidescan

Segment/Area/Line	Today (Lkm)	Accum. (Lkm)	Current estimated total (Lkm)	Remarks
Acoustic: Sidescan Sonar				
Gear type:	200	450	450	

Overall Progress Groundtruthing Samples

Action	Number of samples (today)	Lengths	Current total	Remarks
Hamon grab	18		106	
Camera sledge		10min	12	
Drop camera	23		301	

Weather forecast for the next 24 hours

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Planned operation for the next 24 hours (00:00 to 24:00)

Continue groundtruthing at MSGC

Agreed Changes to Scope/Survey operation priorities

No changes

Cefas/JNCC Comments

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Cefas SIC:
JNCC Rep:



**DAILY LOG
STATUS REPORT
CEND 05/13 rMCZ survey
Cefas Endeavour – JNCC – DPR No. 17 – 4th May 2013**

Vessel: Cefas Endeavour GSM : 07799773456 07827237014	Project: CEND 05/13 South Dorset, East of Haig Fras, North of St George's Channel and Mid St George's Channel rMCZ survey Satellite Voice Bridge: int 871763998027 int 871600309716
Daily Progress Report No. 17 Date: 4 th May 2013	Location at 00.00: 52° 37.5' N 005° 12.5' W

To Company:	Person:	E-mail:
Cefas		
Cefas		
JNCC		
JNCC		
JNCC		

Safety

	Today	To Date
Accidents/Incidents		
Near Misses		
Safety Drills/Induction		3

Summary of operations 0000-2400

Time UTC	Type	Comments
00:00	Transit	
00:11	TOSa	MSGC072 HGA1
00:21	TOSa	MSGC072 DCA1
00:23	Transit	
00:57	TOSa	MSGC076 DCA1
01:06	Transit	
01:17	TOSa	MSGC076 HGA1
01:59	TOSa	MSGC079 HGA1
02:03	TOSa	MSGC079 HGA2
02:12	TOSa	MSGC079 DCA1
02:14	Transit	
02:40	TOSa	MSGC011 DCA1
02:50	Transit	
03:00	TOSa	MSGC011 HGA1
03:41	TOSa	MSGC011 DCA2
03:51	Transit	
04:11	TOSa	MSGC018 DCA1
04:13	Transit	
04:20	TOSa	MSGC018 HGA1
04:41	TOSa	MSGC015 HGA1
04:50	TOSa	MSGC015 DCA1
04:52	Transit	
05:10	TOSa	MSGC083 DCA1
05:11	Transit	
05:21	TOSa	MSGC083 HGA1
05:49	TOSa	MSGC137 DCA1
06:08	Transit	
06:23	TOSa	MSGC022 HGA1
07:16	TOSa	MSGC136 DCA1
07:32	Transit	
08:03	TOSa	MSGC091 DCA1
08:13	Transit	
08:24	TOSa	MSGC091 HGA1

DAILY LOG STATUS REPORT

08:59	TOSa	MSGC029 HGA1
09:08	TOSa	MSGC029 DCA1
09:11	Transit	
09:43	TOSa	MSGC025 DCA1
09:53	Transit	
10:02	TOSa	MSGC029 HGA1
10:26	TOSa	MSGC033 HGA1
10:37	TOSa	MSGC033 DCA1
10:45	Transit	
11:19	TOSa	MSGC036 DCA1
11:21	Transit	
11:29	TOSa	MSGC036 HGA1
12:05	TOSa	MSGC038 HGA1
12:18	TOSa	MSGC038 DCA1
12:31	Transit	
13:08	TOSa	MSGC032 DCA1
13:10	Transit	
13:18	TOSa	MSGC032 HGA1
13:46	TOSa	MSGC028 HGA1
13:56	TOSa	MSGC028 DCA1
13:58	Transit	
14:25	TOSa	MSGC024 DCA1
14:37	Transit	
14:46	TOSa	MSGC024 HGA1
15:36	TOSa	MSGC021 HGA1
15:47	TOSa	MSGC021 DCA1
15:49	Transit	
16:38	TOSa	MSGC017 DCA1
16:40	Transit	
16:48	TOSa	MSGC017 HGA1
17:14	TOSa	MSGC014 HGA1
17:25	TOSa	MSGC014 DCA1
17:27	Transit	
17:54	TOSa	MSGC010 DCA1
18:04	Transit	
18:12	TOSa	MSGC010 HGA1
18:37	TOSa	MSGC008 HGA1
18:47	TOSa	MSGC008 DCA1
18:57	Transit	
19:22	TOSa	MSGC005 DCA1
19:24	Transit	
19:32	TOSa	MSGC005 HGA1
20:08	TOSa	MSGC075 HGA1
20:22	TOSa	MSGC075 DCA1
20:24	Transit	
21:07	TOSa	MSGC072 DCA1
21:48	Transit	
22:00	TOSa	MSGC068 DCA1
22:11	Transit	
22:20	TOSa	MSGC068 HGA1
23:01	TOSa	MSGC061 HGA1
23:16	TOSa	MSGC061 DCA1
23:26	Transit	
23:57	TOSa	MSGC131 DCA1
24:00		

Weather

DAILY LOG STATUS REPORT

Weather/sea state conditions	0000-0600	0600-1200	1200-1800	1800-2400	Remarks
	260° 21kn 2m 1023 Vis 7		230° 20kn 2m 1027 Vis 8	220° 20kn 2m 1029 Vis 8	

Overall Progress

Type	Today (hh:mm)	Accum (hh:mm)		Remarks
Mob/Demob	00:00	15:15		
Offshore Calibrations	00:00	04:21		
Total Operation Survey (TOSu)	00:00:	32:10		
Total Operation Sampling (TOSa)	14:12	126:56		
Equipment/Downtime	00:00	00:00		
Ship/Plant Downtime	00:00	00:00		
Waiting On Weather	00:00	04:50		
Transit	09:48	224:28		
Standby Port	00:00	00:00		
Others	00:00	00:00		
Total:	24:00	408:00		

Overall Progress Geophysical Data Acquisition MBES/Sidescan

Segment/Area/Line	Today (Lkm)	Accum. (Lkm)	Current estimated total (Lkm)	Remarks
Acoustic: Sidescan Sonar				
Gear type:	200	450	450	

Overall Progress Groundtruthing Samples

Action	Number of samples (today)	Lengths	Current total	Remarks
Hamon grab	26		132	
Drop camera/camera sledge	29	3-20min	342	

Weather forecast for the next 24 hours

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Planned operation for the next 24 hours (00:00 to 24:00)

Continue groundtruthing at MSGC

Agreed Changes to Scope/Survey operation priorities

No changes

Cefas/JNCC Comments

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Cefas SIC:
JNCC Rep:



**DAILY LOG
STATUS REPORT
CEND 05/13 rMCZ survey
Cefas Endeavour – JNCC – DPR No. 18 – 5th May 2013**

Vessel: Cefas Endeavour GSM : 07799773456 07827237014	Project: CEND 05/13 South Dorset, East of Haig Fras, North of St George's Channel and Mid St George's Channel rMCZ survey Satellite Voice Bridge: int 871763998027 int 871600309716
Daily Progress Report No. 18 Date: 5 th May 2013	Location at 00.00: 52° 35.4' N 005° 19' W

To Company:	Person:	E-mail:
Cefas		
Cefas		
JNCC		
JNCC		
JNCC		

Safety

	Today	To Date
Accidents/Incidents		
Near Misses		
Safety Drills/Induction		3

Summary of operations 0000-2400

Time UTC	Type	Comments
00:00		End of MSGC131 DCA1
00:14	Transit	
00:29	TOSa	MSGC131 HGA1
00:56	TOSa	MSGC054 HGA1
01:01	TOSa	MSGC054 HGA2
01:11	TOSa	MSGC054 DCA1
01:13	Transit	
01:46	TOSa	MSGC049 DCA1
01:56	Transit	
02:06	TOSa	MSGC049 HGA1
02:11	TOSa	MSGC049 HGA2
02:44	TOSa	MSGC043 HGA1
02:53	TOSa	MSGC043 DCA1
02:55	Transit	
03:36	TOSa	MSGC134 DCA1
03:56	Transit	
04:17	TOSa	MSGC135 DCA1
04:34	Transit	
04:40	TOSa	MSGC135 HGA1
04:59	TOSa	MSGC039 HGA1
05:05	TOSa	MSGC039 HGA2
05:11	TOSa	MSGC039 HGA3
05:20	TOSa	MSGC039 DCA1
05:22	Transit	
05:47	TOSa	MSGC133 DCA1
06:06	Transit	
06:23	TOSa	MSGC133 HGA1
06:28	TOSa	MSGC133 HGA2
07:07	TOSa	MSGC040 HGA1
07:13	TOSa	MSGC040 HGA2
07:18	TOSa	MSGC040 HGA3
07:29	TOSa	MSGC040 DCA1
07:38	Transit	

DAILY LOG STATUS REPORT

08:14	TOSa	MSGC046 DCA1
08:24	Transit	
08:35	TOSa	MSGC046 HGA1
09:28	TOSa	MSGC051 HGA1
09:35	TOSa	MSGC051 HGA2
09:41	TOSa	MSGC051 HGA3
09:52	TOSa	MSGC051 DCA1
10:02	Transit	
10:39	TOSa	MSGC053 DCA1
10:49	Transit	
11:00	TOSa	MSGC053 HGA1
11:05	TOSa	MSGC053 HGA2
11:12	TOSa	MSGC053 HGA3
11:44	TOSa	MSGC057 HGA1
11:58	TOSa	MSGC057 DCA1
12:10	Transit	
13:21	TOSa	MSGC060 DCA1
13:23	Transit	
13:32	TOSa	MSGC060 HGA1
14:08	TOSa	MSGC064 HGA1
14:21	TOSa	MSGC064 DCA1
14:33	Transit	
15:08	TOSa	MSGC067 DCA1
15:19	Transit	
15:27	TOSa	MSGC067 HGA1
15:51	TOSa	MSGC071 HGA1
15:57	TOSa	MSGC071 HGA2
16:40	TOSa	MSGC071 DCA1
16:42	Transit	
17:11	TOSa	MSGC003 DCA1
17:13	Transit	
17:22	TOSa	MSGC003 HGA1
17:44	TOSa	MSGC004 HGA1
17:55	TOSa	MSGC004 DCA1
18:06	Transit	
18:42	TOSa	MSGC001 DCA1
18:43	Transit	
18:51	TOSa	MSGC001 HGA1
19:19	TOSa	MSGC002 HGA1
19:30	TOSa	MSGC002 DCA1
19:41	Transit	
20:14	TOSa	MSGC006 DCA1
20:16	Transit	
20:24	TOSa	MSGC006 HGA1
20:55	TOSa	MSGC012 HGA1
21:14	TOSa	MSGC012 DCA1
21:24	Transit	
21:52	TOSa	MSGC009 DCA1
22:03	Transit	
22:12	TOSa	MSGC009 HGA1
22:40	TOSa	MSGC007 HGA1
22:51	TOSa	MSGC007 DCA1
23:02	Transit	
23:28	TOSa	MSGC013 DCA1
23:30	Transit	
23:37	TOSa	MSGC013 HGA1
23:46	TOSa	MSGC013 HGA2
23:52	TOSa	MSGC013 HGA3

DAILY LOG STATUS REPORT

24:00		
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Weather

Weather/sea state conditions	0000-0600	0600-1200	1200-1800	1800-2400	Remarks
	230° 20kn	210° 18kn	200° 19kn	200° 13kn	
	2m	2m	2m	2m	
	1029	1031	1032	1032	
	Vis 6	6	7	8	

Overall Progress

Type	Today (hh:mm)	Accum (hh:mm)		Remarks
Mob/Demob	00:00	15:15		
Offshore Calibrations	00:00	04:21		
Total Operation Survey (TOSu)	00:00	32:10		
Total Operation Sampling (TOSa)	14:21	141:17		
Equipment/Downtime	00:00	00:00		
Ship/Plant Downtime	00:00	00:00		
Waiting On Weather	00:00	04:50		
Transit	09:39	234:07		
Standby Port	00:00	00:00		
Others	00:00	00:00		
Total:	24:00	432:00		

Overall Progress Geophysical Data Acquisition MBES/Sidescan

Segment/Area/Line	Today (Lkm)	Accum. (Lkm)	Current estimated total (Lkm)	Remarks
Acoustic: Sidescan Sonar				
Gear type:	200	450	450	

Overall Progress Groundtruthing Samples

Action	Number of samples (today)	Lengths	Current total	Remarks
Hamon grab	25		157	
Drop camera/camera sledge	25	3-20min	367	

Weather forecast for the next 24 hours

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Planned operation for the next 24 hours (00:00 to 24:00)

Continue groundtruthing at MSGC and then collect MBES until time to transit to Swansea
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Agreed Changes to Scope/Survey operation priorities

No changes

Cefas/JNCC Comments

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Cefas SIC:
JNCC Rep:



5.7. Fisheries Liaison Officer (FLO) Report

No fishing activity was observed during the survey of the North St George's Channel rMCZ during the survey CEND 03/12.

About us

Cefas is a multi-disciplinary scientific research and consultancy centre providing a comprehensive range of services in fisheries management, environmental monitoring and assessment, and aquaculture to a large number of clients worldwide.

We have more than 500 staff based in 2 laboratories, our own ocean-going research vessel, and over 100 years of fisheries experience.

We have a long and successful track record in delivering high-quality services to clients in a confidential and impartial manner.

(www.cefasc.defra.gov.uk)

Cefas Technology Limited (CTL) is a wholly owned subsidiary of Cefas specialising in the application of Cefas technology to specific customer needs in a cost-effective and focussed manner.

CTL systems and services are developed by teams that are experienced in fisheries, environmental management and aquaculture, and in working closely with clients to ensure that their needs are fully met.

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With our unique facilities and our breadth of expertise in environmental and fisheries management, we can rapidly put together a multi-disciplinary team of experienced specialists, fully supported by our comprehensive in-house resources.

Our existing customers are drawn from a broad spectrum with wide ranging interests. Clients include:

- international and UK government departments
- the European Commission
- the World Bank
- Food and Agriculture Organisation of the United Nations (FAO)
- oil, water, chemical, pharmaceutical, agro-chemical, aggregate and marine industries
- non-governmental and environmental organisations
- regulators and enforcement agencies
- local authorities and other public bodies

We also work successfully in partnership with other organisations, operate in international consortia and have several joint ventures commercialising our intellectual property

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