

**CENTRE FOR ENVIRONMENT, FISHERIES AND AQUACULTURE SCIENCE
LOWESTOFT LABORATORY, SUFFOLK, NR33 0HT**

2014 RESEARCH VESSEL PROGRAMME

PROGRAMME: Cefas Endeavour: SurveyCEND0514

STAFF: TBC

DURATION: 13th March to 31st March 2014

LOCATION: Farnes East rMCZ, Swallow Sand rMCZ and Fladen SMPA areas (Figure 1).

AIMS: To investigate features identified from within the rMCZ sites during recent verification surveys, through the use of seabed imagery techniques (video and stills) and potentially acquiring sediment samples and MBES data. To survey areas within the Fladen grounds 'muddy sediments' using grabs and seabed imagery techniques to provide information for the management, monitoring and verification of features from the fladen grounds SMPA . There is also the potential to acquire MBES data during this part of the cruise.

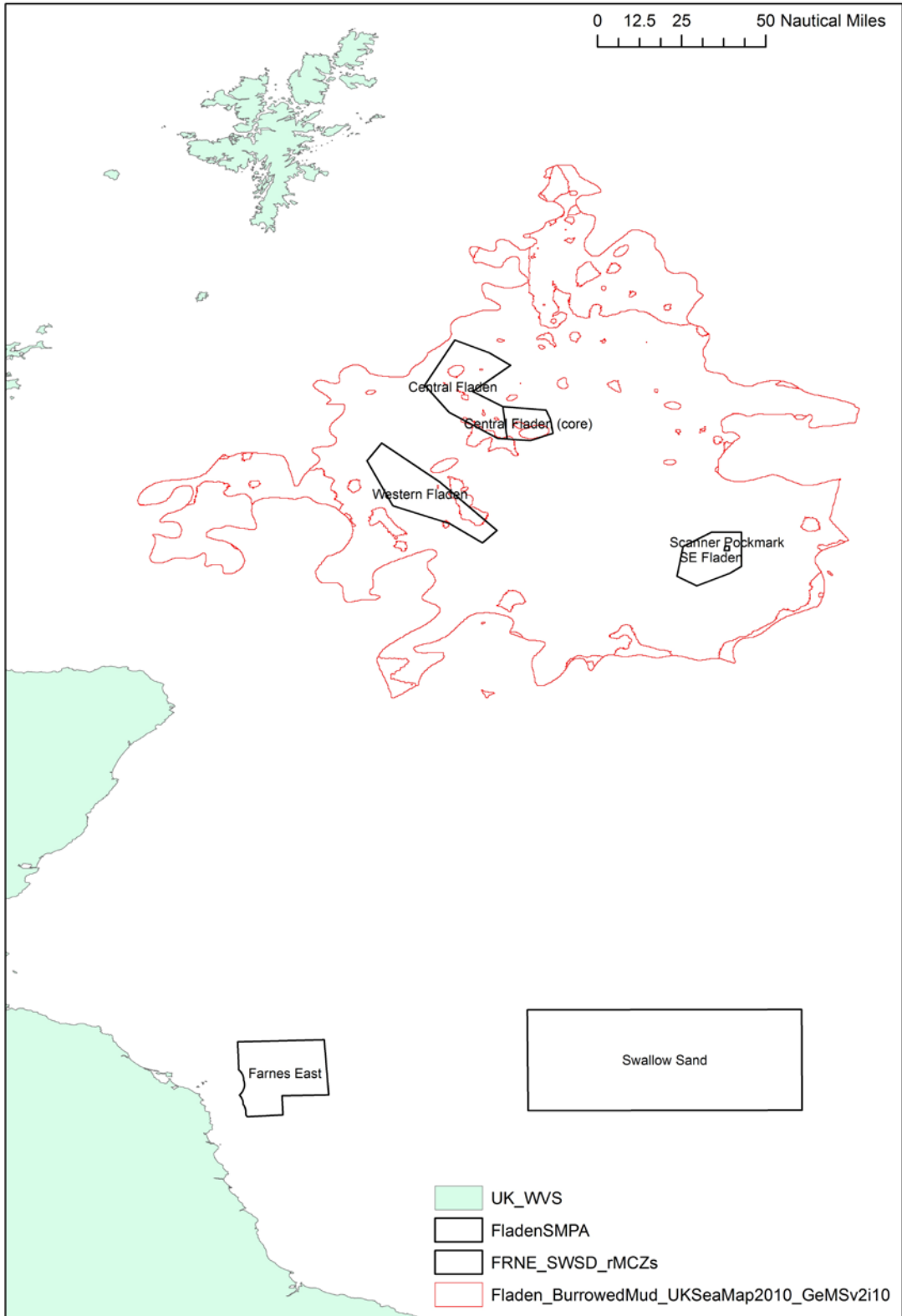


Figure 1 Survey areas

PLAN: Depart Lowestoft following equipment mob, safety inductions and vessel familiarisation on the 13th March 2013 to arrive at the Farnes East rMCZ for a two day seabed imagery/grab survey. Transit to the Swallow sands rMCZ to conduct a two day seabed imagery/grab survey. The remainder of the survey will be in the Fladen grounds where we will be completing a series of seabed imagery/grab surveys in and around the potential SMPAs before returning to Lowestoft on the morning tide of the 31st March 2014, with the option of returning on the evening tide as a contingency for completing the survey objectives.

GEAR: MBES, camera sledge, drop camera, mini hamon grab with video, day grab, Shipek grab

NOTES: A draft 'Plan of Action' is due from the JNCC partner, 14th Feb 2014, and will be forwarded to all on this distribution list.

Paul McIlwaine
Scientist In Charge
13/02/2014

INITIALLED: Paul McIlwaine

DISTRIBUTION: P&O, MIST, SIC, Shift leads.