

BRIEF FOR THE MAINTENANCE AND/OR INSTALLATION AND/OR PROVISION OF HYDRODYNAMIC EQUIPMENT

Scheme Title	Southeast Regional Coastal Monitoring Programme (SRCMP)
Employer's Address	Appletree Court, Beaulieu Road, Lyndhurst SO43 7PA
Nominated Employer's Representative	Dr Travis Mason
Survey Title	Maintenance and/or installation and/or provision of hydrodynamic equipment
Purpose of Survey	The hydrodynamic network is used as a part of a long-term programme of coastal monitoring, to analyse coastal processes and provide data for operational and strategic shoreline management
Specification	National Network of Regional Coastal Monitoring Programmes of England Specification for Hydrodynamic services v1.0 (August 2015)
Delivery Schedule	The delivery schedule for assumption of full responsibility for the network of existing instrumentation is 1 st April 2017 or within 3 calendar months of award of contract, whichever is the later
Tender Submission Date	See the invitation to tender letter
Contract Completion Date	31 March 2021
Known Hazards	The Employer is unaware of any special hazards other than those normally associated with offshore and onshore instrumentation deployment and maintenance. The Consultant shall carry out a full Risk Assessment before each deployment/maintenance visit and shall prepare a Safe System of Working based on the Assessment. A copy shall be forwarded to the Employer's Representative. The Consultant's attention is drawn to the desirability, among other things, of monitoring weather conditions and of notifying the Coastguard of the deployment/maintenance activities.
Site Conditions/ Restrictions, Access and Public Relations	A letter of introduction will be provided which should be presented as a matter of course, and without it being demanded, at all meetings with landowners or the public

This Brief provides details specific to instrumentation which shall be maintained (including unscheduled maintenance) and/or deployed and/or provided according to the Specification.

1. Variations to Specification

There are no variations to the Specification.

2. Phased assumption of responsibility for continuity of data and of unscheduled maintenance

There will be a phased programme of transfer of responsibility from the Employer's representative to the Consultant during the 3 months prior to the Delivery Schedule. It is crucial that continuity of data is maintained during this period and that any data losses are kept to a minimum. If required, the Employer's representative will be available to accompany the Consultant to a half day's visit to each shore station, to aid the transfer of responsibility.

The Consultant will provide in the method statement a procedure for how the transfer of responsibility will be achieved and a programme for assuming responsibility for all sites by the Delivery Schedule.

3. Equipment spares

An extensive stock of spares for the deployed equipment is held by the Employer, as listed in the schedule (Appendix 1). The Consultant will be expected to liaise with and co-operate with the Employer's representative in Hampshire to arrange a phased hand-over of the spares. This is to ensure that sufficient spares are available to both the Consultant and the Employer's representative during the 3 month period prior to the Consultant assuming responsibility for the network.

4. Existing deployments

The locations listed in Table 1 and shown in Figure 1 have instruments deployed, for which the Consultant will become fully responsible by the Delivery schedule date. Full details of the equipment at each site are given in the Schedule (Appendix 1). The wave buoys are Datawell Directional Waverider Mk III (DWR) moored using Datawell's shallow water mooring (deep water mooring at St Mary's Sound) and use HF radio transmission to shore station. The shore stations will continue to host equipment and all have a phone line and broadband installed. All existing equipment has been maintained according to the manufacturer's recommendations and in accordance with the Specification. It can be assumed that all deployed equipment will be operational when the Consultant assumes responsibility for it.

Where indicated in Table 1, a display of real-time wave/tide/met/other parameters, customised to the shore station host's requirements, shall be provided and maintained at the shore station.

Where receiving/logging/data transfer systems for the DWR's are integrated with those for other wave/tide/met/ARGUS/other data, any changes to the shore station must maintain the service to the other equipment.

Instrument	Site name	Approximate Location	Shore station	Service intervals Next service due	Comments
DWR	Hornsea	53° 55.00'N 00° 04.01'W	Hornsea Beach office	6 months Jun 2017	
Etrometa	Herne Bay	51° 22.20'N 01° 06.93'E	Herne Bay Bandstand	9 months Apr 2017	Gauge sited on a detached dolphin. Met station on pier head
Met		51° 22.37'N 01° 07.46'E			
DWR	Goodwin Sands	51° 15.01'N 01° 28.98'E	Ramsgate Harbour	6 months Jul 2017	Data display
REX	Deal Pier	51° 13.43'N 01° 24.55'E	Deal Pier office	9 months Jul 2017	Cleaning of navigation lights
Met		51° 13.44'N 01° 24.54'E			
DWR	Folkestone	51° 03.75'N 01° 07.68'E	Shepway District Council office	6 months Jul 2017	Data display
REX	Hastings	50° 51.03'N 00° 34.23'E	Hastings Pier	9 months Jun 2017	Data display
DWR	Pevensey Bay	50° 46.99'N 00° 25.03'E	Environment Agency office	6 months May 2017	Data display
DWR	Seaford	50° 46.00'N 00° 04.47'E	Newhaven Fort	6 months Jun 2017	Data display
Met	Brighton	50° 48.84'N 00° 06.07'W	Brighton Marina	9 months Jul 2017	
Met	Worthing	50° 48.42'N 00° 22.13'W	Worthing Pier	9 months Oct 2017	Solar insolation, relative humidity and rainfall also measured
DWR	Rustington	50° 44.06'N 00° 29.64'W	Arun District Council office	6 months Aug 2017	Data display
Met	Arun Platform	50° 46.20'N 00° 29.50'W	Arun District Council office	9 months Jun 2017	Sited on Arun Platform circa 3 km offshore of Littlehampton. HF link to Arun District Council

Instrument	Site name	Approximate Location	Shore station	Service intervals Next service due	Comments
Valeport pressure transducer (tides only) + Valeport radar					office. Annual cleaning of platform required. Instruments are solar powered
DWR	Bracklesham Bay	50° 43.36'N 00° 50.33'W	Unit 7, Hayling Billy Business Centre	6 months May 2017	Data display
DWR	Hayling Island	50° 43.91'N 00° 57.56'W		6 months May 2017	Data display
DWR	Sandown Bay	50° 39.03'N 01° 07.77'W	Sandown Golf Club	6 months May 2017	Data display
REX	Sandown Pier	50° 39.07'N 01° 09.19'W	Sandown pier	9 months Dec 2017	
Met					
Etrometa	Lymington	50° 44.42'N 01° 30.43'W	Keyhaven Warden office	9 months Nov 2017	Sited on Royal Lymington Yacht Club starting platform, solar powered HF link to Keyhaven Warden office.
Met					
DWR	Milford	50° 42.71'N 01° 36.93'W		6 months Jun 2017	Data display in New Forest District Council office
DWR	Boscombe	50° 42.68'N 01° 50.39'W	Boscombe Beach office	6 months Jun 2017	Data display
REX	Swanage Pier	50° 36.56'N 01° 56.95'W	Swanage Sailing Club	9 months Apr 2017	Cleaning of navigation lights
Met					

Instrument	Site name	Approximate Location	Shore station	Service intervals Next service due	Comments
DWR	Weymouth	50° 37.38'N 02° 24.80'W	Weymouth & Portland National Sailing Academy	6 months Aug 2017	Data display. The shore station is shared with the southwest coastal monitoring programmes' Chesil DWR but shore station is responsibility of this contract
Met	Portland	50° 34.08'N 02° 26.35'W		9 months Aug 2017	Data display

Table 1: Etrometa = Etrometa step gauge; DWR = Directional Wave Rider Buoy; REX = Rosemount WaveRadar REX; Met = Meteorological station comprising any of the following parameters: air temperature, wind speed, gust speed, wind direction, barometric pressure, rainfall, RH, UV, sunshine

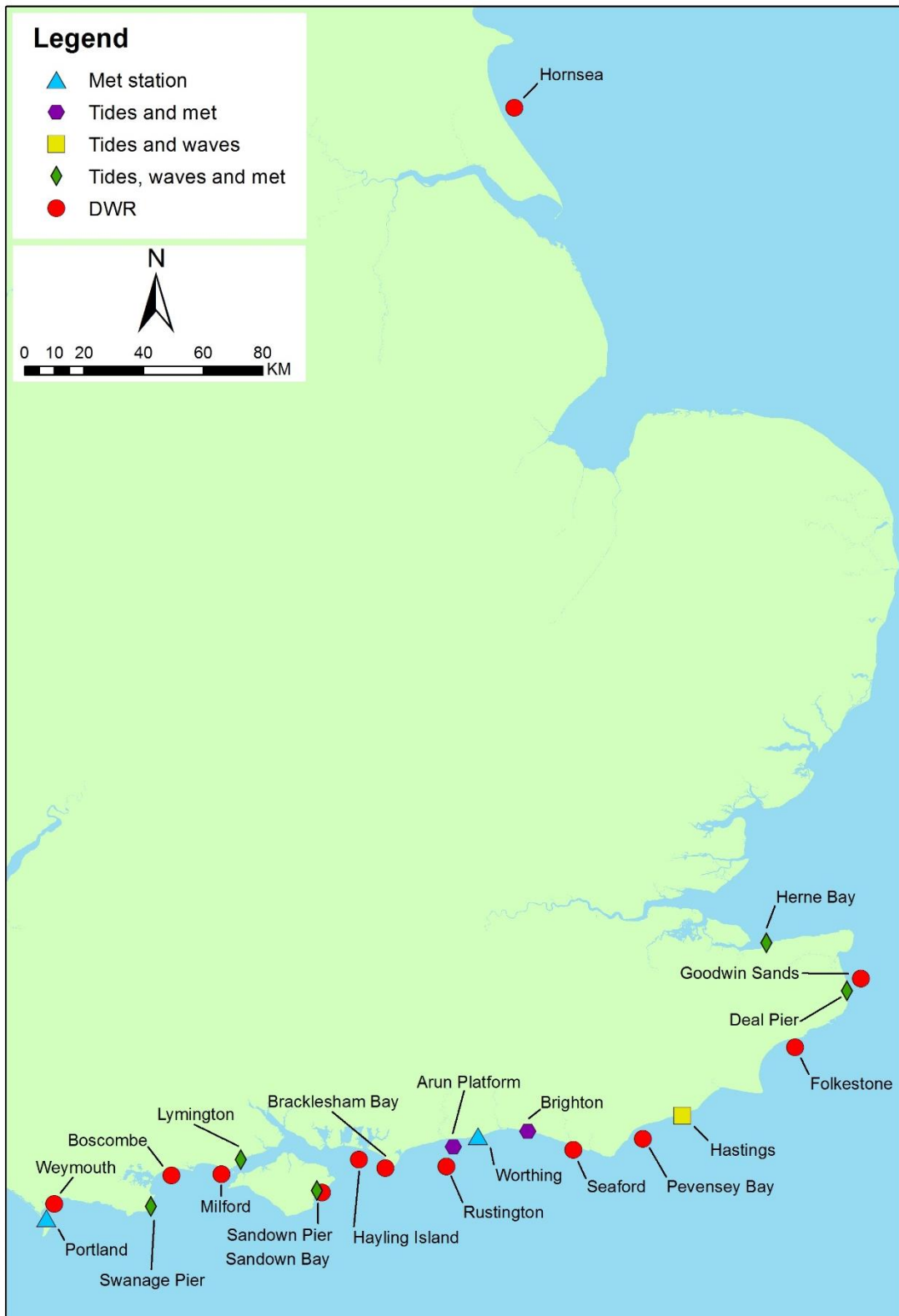


Figure 1: Location of existing deployments

5. New deployments

There are no planned new deployments at present.

6. Instrument/buoy lettering

The wording to be used on a wave buoy is:

02380 598467
NO MOORING
Channel Coastal Observatory

On award of contract, however, the telephone number shall be amended to that of the Consultant's 24-hour contact number. The revised telephone number need only be applied to new deployments or following a service visit.

7. Additional tasks

The following additional tasks shall be undertaken as part of the scheduled maintenance, in conjunction with a service visit at:

- Boscombe – annual grab-sampling of 8 sediment samples in approximately 10-15m water depth, between Boscombe Pier and Hengistbury Head (GPS co-ordinates of locations will be provided to the Contractor on award of contract) and delivery of samples to Channel Coastal Observatory
- Swanage Pier – maintenance of navigation lights
- Deal Pier – maintenance of navigation lights
- Arun Platform – annual cleaning of platform

8. Vessel costs for unscheduled maintenance

Vessel costs for unscheduled maintenance visits are expected to be kept to a minimum, and not to exceed £1,000 per (12 hour) day. Only in exceptional circumstances will the Employer agree to vessel costs exceeding this sum, which must be authorised in advance by the Employer.

9. Technical Requirement

Required data shall be delivered within 4 weeks of the activity. Deployment/service reports shall be delivered quarterly.

10. Supply of Datawell spares

During the course of the contract, a significant quantity of spare equipment is needed for the wave buoys. Spares may be provided either by the Employer (Option 1) or the Consultant (Option 2). The Consultant is required to provide a cost for supplying a sample quantity of spare Datawell equipment (which is approximately the quantity of spares used in a typical 6 - 9 month period), for price Option 2. The list of spares to be costed is included as a separate worksheet in the Task Schedule.

Both Options will be assessed during the tender financial evaluation.

APPENDIX 1 - SCHEDULE OF HYDRODYNAMIC EQUIPMENT

The schedule of deployed and spare equipment is correct at the time of issue of the tender documents. There may be some changes to the quantities of spares by the time of contract award but the list provides a realistic assessment of the level of spares to be housed by the Consultant. The majority of the shore station computers have Windows XP operating system, the remainder have Windows 7.

Key:

DWR = Datawell Directional Waverider Mk III

Mooring = Datawell shallow water mooring, consisting of 2 x 15 m bungee, polypropylene terminations, 2 float pellets, 2 aluminium anodes, chain separators, ~850 kg clump weight, bespoke length polyprop line

REX = Rosemount WaveRadar REX

Met = OMC/Campbell/Gill integrated met station with instruments measuring any/all of wind speed (mean and gust), wind direction, barometric pressure, rainfall, air temperature, humidity, UV

Equipment	No.	Comments	
Hornsea			
DWR	1	Deployed at 53° 55.00'N 00° 04.01'W	
Mooring	1		
Datawell HF antenna + cable	1	Located at shore station rfbuoy	
Datawell RX-C	1		
Computer	1		
VDU	1		
UPS	1		
Cabinet	1		
BT broadband	1		
BT phone line	1		
Herne Bay			
3-section Etrometa step gauge and galvanised mounting frame	1		On detached dolphin circa 1 km offshore
Met	1	On Pier	
UHF transmitter	1		
Computer	1	Located at shore station	
VDU	1		
UPS	1		
Cabinet	1		

BT broadband	1		
BT phone line	1		
Goodwin Sands			
DWR	1	Deployed at 51° 15.01'N 01° 28.98'E	
Mooring	1		
Datawell HF antenna + cable	1	Located at shore station rfbuoy	
Datawell RX-C	1		
Computer	1		
VDU	1		
UPS	1		
Cabinet	1		
BT broadband	1		
BT phone line	1		
Deal Pier			
Mains-powered REX	1		On pier
Marine-grade s/s frame for REX	1		
Met	1		
Weatherproof cabinet	1	Located at shore station	
UPS	1		
VDU	1		
Computer	1		
BT broadband	1		
BT phone line	1		
Folkestone			
DWR	1	Deployed at 51° 03.75'N 01° 07.68'E	
Mooring	1		
Met	1	Located at shore station rfbuoy	
Datawell HF antenna + cable	1		
Datawell RX-C	1		
Computer	1		
VDU	1		
UPS	1		
BT broadband	1		
BT phone line	1		

Cabinet	1	
Hastings		
Mains-powered REX	1	On pier
Marine-grade s/s frame	1	
Weatherproof Cabinet	1	
Computer	1	Located in weatherproof cabinet on pier
VDU	1	
UPS	1	
BT broadband	1	
BT phone line	1	
Pevensey Bay		
DWR	1	Deployed at 50° 46.99'N 00° 25.03'E
Mooring	1	
Datawell HF antenna + cable	1	Located at shore station rfbuoy
Datawell RX-C	1	
VDU	1	
UPS	1	
Cabinet	1	
Computer	1	
BT broadband	1	
BT phone line	1	
Seaford		
DWR	1	Deployed at 50° 46.00'N 00° 04.47'E
Mooring	1	
Datawell HF antenna + cable	1	Located at shore station rfbuoy
Datawell RX-C	1	
Computer	1	
VDU	1	
UPS	1	
BT broadband	1	
BT phone line	1	
Cabinet	1	

Brighton		
Met	1	Located on site
UHF antenna + cable	1	
Batteries	1	
Cabinet	1	
Worthing		
Met + solar insolation, relative humidity and rain gauge	1	Located on pier
Rustington		
DWR	1	Deployed at 50° 44.06'N 00° 29.64'W
Mooring	1	
Datawell HF antenna + cable	1	Located as shore station rfbuoy
Datawell RX-C	1	
Computer	1	
VDU	1	
UPS	1	
BT broadband	1	
BT phone line	1	
Cabinet	1	
Arun Platform		
Valeport WaveRadar	1	Deployed on Arun Platform circa 3 km offshore
Valeport 730 pressure transducer	1	
Solar powered Met station	1	
Solar powered UHF transmitter	1	
Batteries	2	
Bracklesham Bay		
DWR	1	Deployed at 50° 43.36'N 00° 50.33'W
Mooring	1	
Hayling Island		
DWR	1	Deployed at 50° 43.91'N 00° 57.56'W
Mooring	1	
Datawell HF antenna + cable + cable splitter	1	Located at shore station rfbuoy

Datawell RX-C	2	
Computer	1	
VDU	1	
UPS	1	
BT broadband	1	
BT phone line	1	
Cabinet	1	
Sandown Bay		
DWR	1	Deployed at 50° 39.03'N 01° 07.77'W
Mooring	1	
Datawell HF antenna + cable	1	Located at shore station rfbuoy
Datawell RX-C	1	
Computer	1	
VDU	1	
UPS	1	
BT broadband	1	
BT phone line	1	
Cabinet	1	
Sandown Pier		
Mains-powered REX	1	Deployed on pier
Marine-grade s/s frame	1	
Mains-powered Met	1	
Weatherproof cabinet	1	
Computer	1	Located in weatherproof cabinet on pier
VDU	1	
UPS	1	
BT broadband	1	
BT phone line	1	
Lymington		
2-section Etrometa step gauge and galvanised mounting frame	1	
Etrometa Met station	1	
UHF transmitter	1	
Batteries	1	

Milford			
DWR	1	Deployed at 50° 42.71'N 01° 36.93'W	
Mooring	1		
Datawell HF antenna + cable	1	Located at shore station rfbuoy	
Datawell RX-C	1		
Computer	1		
VDU	1		
UPS	1		
BT broadband	1		
BT phone line	1		
Cabinet	1		
Boscombe			
DWR	1		Deployed at 50° 42.68'N 01° 50.39'W
Mooring	1		
Datawell HF antenna + cable	1	Located at shore station rfbuoy	
Datawell RX-C	1		
Computer	1		
VDU	1		
UPS	1		
BT broadband	1		
BT phone line	1		
Cabinet	1		
Swanage Pier			
Mains-powered REX	1		Located on Pier
Marine-grade s/s frame	1		
Mains-powered Met	1		
Weatherproof Cabinet	1		
Computer	1	Located at shore station	
VDU	1		
UPS	1		
BT broadband	1		
BT phone line	1		

Weymouth		
DWR	1	Deployed at 50° 37.38'N 02° 24.80'W
Mooring	1	
Datawell HF antenna + cable	1	Located at shore station rfbuoy
Datawell RX-C	1	
Computer	1	
VDU	1	
UPS	1	
BT broadband	1	
BT phone line	1	
Cabinet	1	
Met	1	
Spare equipment		
3m step gauge section	1	For Etrometa step gauge
3m step gauge frame	0	
15m Bungee	13	For DWR
3kg pellet float	10	
10kg pellet float	16	
Galvanised seabed shackle	31	
S/S 12mm shackle	48	
Chain anode separator set	7	
Chain anodes	48	
Triangle anodes	124	
Mooring chain	11	
Rope termination	18	
Radar reflector set	9	
Battery pack	21	
Safety triangle	6	
Hatch cover screw	250	
Hatch cover "O" ring	15	
Hatch cover handle	5	
BUFFIN antenna	3	
GPS wire	2	

HF antenna (32-36 MHz)	2	
RX-C	1	
Buoy finder	1	
Datawell DWR Mk III	6	