

## ADCP Method Statement and Schedule of work

### 1 SURVEY OBJECTIVES

The objectives of the survey works are defined as follows:

- Static ADCP Current & Wave measurements at three (3) locations.

### 2 SURVEY METHODS

#### 2.1 Survey Equipment

An overview of key components is made in the following table:

Table 2-1;

Vessel	Positioning System	Single beam echo sounder(SBES)	ADCP Static
TBD	Trimble or Novatel RTK Ixblue Octans III or IV	Navisound 210	Nortek AWAC 1 MHz

#### 2.2 Overview of Key Components

##### *Surface positioning system*

The vessel shall be equipped with a RTK (Real Time Kinematic) positioning system. Where telephone reception is available RTK differential signals will be used (06 GPS).

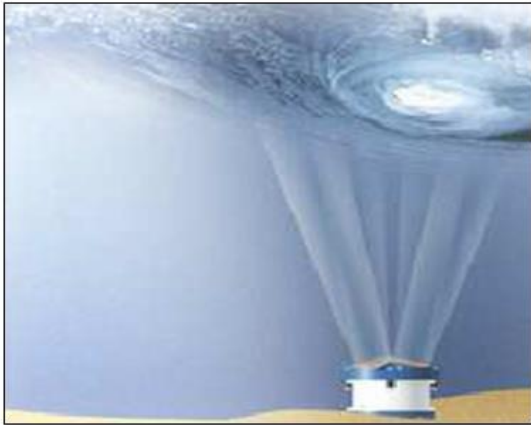
To transfer positions to other locations (nodes) on the vessel, the vessel will be equipped with a motion sensor and gyro. All offsets will be established relative to the vessels COG (centre of gravity).

##### *Static ADCP measurements*

An ADCP will be installed on three locations using bottom frames. The dimensions of the frames to be used is 1,5x1,5 m with a height of 0,7 m and total combined weight (in air) of about 75 kg.

Lowering of the frames can only be done during slack tides. The vessel will be kept stationary on the assigned positions and using the A-frame lower the measurement frames on the seabed. During the lowering and positioning of the frames a data cable is connected to the vessel in order to confirm the frame is positioned levelled (the maximum allowable angel of the frame on the seabed is >10 degrees) and data is logged. Once established the frame is positioned correctly and data is logging the data cable will be blinded and together with the acoustic released system put overboard.

The systems will be recoding data internally over a period of minimum 14 days. After the measurement period acoustic release systems will be used to recover the sensors from the seabed, nothing will be left behind in/on the seabed after recovery of the system. No guidance buoys will be at the water surface during the logging period. Bottom mounted systems will be used to record: current magnitude and direction, wave height and direction and tidal information.



*Figure 1 – AWAC wave, current and tidal profiler and typical bottom frame.*