On Board Wind Measurements

On the two gas exchange study process cruises (Challenger 48 and Challenger 62), an anemometer was mounted on the top of the ship's mainmast and relative windspeed and direction were logged every 30 seconds.

Contemporaneously logged values of ship's heading and velocity over the ground were used to correct the data to absolute values at a height of 10m above the sea surface. These were then vector averaged and converted to polar form to give the hourly mean windspeeds and directions included in the data set.

The wind directions are presented in meteorological notation: i.e. the direction from which the wind is blowing.