

On the 15th June, at 2.30 A.M., the force of the wind was 10, and as there was a considerable sea on, the waves lifted the lee cutter inboard, and the ship had to bear up to secure it. At 3.20 A.M. the ship was again brought to the wind until the weather moderated sufficiently to allow of sounding. At 6 A.M. star observations showed that a N. 30° E. current of 15 miles had been experienced since noon of the previous day. At 8.30 P.M. the wind began to moderate, and a reef being shaken out of the topsails, the ship wore and stood to the southwestward. The swell was heavy all day, the waves being at least 20 feet from trough to summit.

On the 16th, the weather being favourable, a sounding was taken at noon in 2550 fathoms at Station 164E (see Sheet 27). Unfortunately, the line parted when heaving in, owing to two strands having been cut, probably on its passage out from England, and the circumstance is of special interest since this was the last sounding line lost during the commission. Having obtained temperatures down to 1500 fathoms, at 4 P.M. sail was made towards Cook Strait, but the wind being foul, and falling light, at 8 P.M. the ship proceeded under steam. The surface current was again southerly, its average rate being one mile per hour, the temperature fairly steady at 63°·5.

On the 17th a sounding and dredging were obtained in 2600 fathoms at Station 165 (see Sheet 27); but the dredge came up empty at 4 P.M., when, the weather being fine, with a moderate southerly breeze, sail was made. From observations at 6 A.M. and noon it appeared that during the past twenty-four hours the current had run 23 miles N. 65° W. (true), and whilst sounding the direction and speed were found to be the same, the rate being estimated at about one mile per hour.

On the 18th, the wind being light and variable, the vessel proceeded under steam. The current still running steadily to the northward; by star and sun observations its direction and rate for the last twenty-four hours were found to be N. 15° W. 16 miles, and the surface temperature 64°.

On the 19th, at 2 P.M., a sounding and serial temperatures were obtained in 2600 fathoms, at Station 165A (see Sheet 27), the bottom temperature 34°·4. No current was experienced whilst sounding, but star observations at 6 A.M., confirmed by those at noon, showed a set of S. 60° E., 0·6 mile per hour. The temperature of the surface water fell gradually during the day from 64° to 62°.

On the 20th no current was experienced, thus confirming the observation whilst sounding at 2 P.M. on the 19th; the surface temperature gradually fell to 59°·5.

On the 21st, at 6.30 A.M., a sounding, with serial temperatures, was obtained in 1975 fathoms, bottom temperature 34°·7, at Station 165B (see Sheet 27). The current was S. 23° W., three quarters of a mile per hour, and the surface temperature 59°·5. During the day a fresh northerly breeze was experienced, which at midnight amounted to a gale.

On the 22nd, at 0.20 A.M., the ship was brought to the wind under close-reefed topsails, a fresh gale blowing with dirty rainy weather. At 3 A.M. the wind suddenly