

southeast half a mile per hour, and directly against the wind. Our latitude was $15^{\circ} 35' S$.

Until the 29th we had moderate breezes. The current this day was found east-northeast, one-third of a mile per hour. At 9 P. M. the wind came from the west. This evening we had a beautiful display of the zodiacal light. It was very bright; its altitude was 25° ; the upper part of the cone was not well marked, and its apex was not defined; the breadth of its base was 30° . A fair breeze from the southwest continued all the next day, when we had reached the longitude of $113^{\circ} 29' W.$, and latitude $17^{\circ} 36' S$.

On the 31st, we passed over the locality of an island marked on the charts of Arrowsmith. Although we ran over its position with the squadron spread so as to cover an extent of thirty-five miles in latitude, and on its parallel for several degrees, lying-to at night, nothing whatever was seen to indicate land; and we therefore believe that it does not exist.

On the 4th of August, the current was found north one-third of a mile per hour.

Temperature at surface,	.	.	.	75°
50 fathoms below surface,	.	.	.	74
100 " " "	.	.	.	73½
200 " " "	.	.	.	61
300 " " "	.	.	.	50

On the 5th, the current was two-thirds of a mile per hour, to the north-northeast.

The winds on the parallel of $18^{\circ} S.$, cannot well be termed "the Trades," for at this time of the year they will be found very variable, though prevailing generally from the eastern quarter, with a long swell from the southwest. The upper stratum of clouds were generally seen flying from the southwest. The deep-sea temperature on the 6th, at three hundred and fifty fathoms depth, was 46° , surface 77° .

The 7th proved a calm and fine day, throughout which experiments were made hourly to ascertain the depth at which a white object could be seen; the altitude of the sun was taken at each observation, and also the force and direction of the current. The temperature of the water at one hundred fathoms was 75° , whilst that of the surface was 77° . We were in longitude $125^{\circ} W.$, latitude $18^{\circ} 14' S$.

The nights of the 8th, 9th, 10th, and 11th, the meteoric showers were looked for, the officers and naturalists keeping watch, each quarter of the heavens being under vision at the same time. On the 8th, upwards of one hundred shooting stars were seen; but the nights