

Chapter One: The Survey of Coastal Stations

In the summer of 1897 the commission dispatched three parties to survey the northern coastal stations. Each party carried a theodolite, two chronometers, and a barometer of the aneroid pattern. The instruments were compared at the observatory before departure and again upon return.

The first party reached Station Marlow on the fourteenth of June. Weather conditions were poor for eleven consecutive days, and the observations taken during that interval were later discarded as unreliable. The second party, working southward from Cape Ellery, fared considerably better.

Readings from the third party have not survived. The field notebooks were lost when the supply vessel foundered off the shoals in early September, and only the summary telegrams remain in the commission archive.

Chapter Three: The Tidal Observations

Tidal observations at Station Marlow were continued through the winter of 1897 without interruption. The gauge was of the float pattern, housed in a timber well sunk four feet below the lowest recorded water.

The self-registering apparatus failed twice during December, on both occasions owing to the freezing of the float chamber. Manual readings were substituted for the affected intervals and are marked accordingly in the published tables of the commission.

A comparison of the winter series with the corresponding series from the preceding year shows agreement within two hundredths of a foot for the mean water level, which the commission regarded as satisfactory.

The northern division comprised four stations, of which two were established during the previous season and two were newly built upon the recommendation of the committee. Supplies were landed by tender at each site before the onset of the winter gales, and the parties wintered ashore.

The southern division comprised only three stations, the fourth having been abandoned after the landslip of the preceding autumn destroyed the observation hut and the greater part of the stores. Rebuilding was postponed until the commission could examine the stability of the slope above.

Chapter Five: Conclusions of the Commission

The commission concludes that the coastal survey of 1897 achieved the greater part of its stated objectives. Positions were fixed for eleven of the fourteen proposed stations, and tidal series of at least six months were obtained at seven of them.

The loss of the third party's notebooks is regretted. The commission recommends that duplicate records be transmitted by post at fortnightly intervals in all future work of this character, and that no single vessel carry the whole of a season's observations.