

4th. The observations required to be made with the sympiesometer half-hourly, on ascending the heights; the temperature of all springs; the temperature of all the different heights, in the sun and shade; morning and evening, at noon, 9 A. M., 9 P. M., 3 P. M., and 9 A. M.; their watches will be set to ship's time, in order that the observations may be compared.

5th. As many observations relative to the topography of the island as may be in their power; the dimensions of the lake on the mountains, its altitude, and, if any opportunity offers of getting at its depth, to ascertain that also.

6th. The meridian altitude, or that of double altitudes for latitude.

7th. Any peculiar or remarkable atmospheric phenomenon, such as refraction, &c., will be sketched, and the time of appearance noted; the other observations will be made at the same time.

(Signed) CHARLES WILKES,
Commanding Exploring Expedition.

U. S. Ship Vincennes,
Matavai Bay, September 13th.

III.

U. S. Ship Vincennes,
Matavai Bay, September 19th, 1839.

SIR,—

You will proceed with the Porpoise under your command, to the west end of Nairsa, Dean's, or Prince of Wales's Island, in longitude $148^{\circ} 02' W.$, and latitude $15^{\circ} 05' 30'' S.$ You will measure the distance from this point to Krusenstern's Island, both by your log and chronometer observations.

You will circumnavigate Krusenstern's Island, and ascertain the latitude and longitude of its eastern and western points; thence to the small island which you saw before, carefully ascertaining its distance from Krusenstern's; after which you will proceed westerly, to search for Lazareff Island, said to be in latitude $14^{\circ} 56' S.$, longitude $149^{\circ} 10' 00'' W.$ I am disposed to believe, from our examinations, that Krusenstern's Island may have been taken for a part of Dean's Island; that a passage of a few miles may exist, dividing what we now believe to be Krusenstern's Island; if such exist, it is at its western extremity.

From thence you will proceed along the parallel of latitude $15^{\circ} 30' S.$, and keep a good look-out for Recreation and Fugitive Islands, laid down on Arrowsmith's Chart, and until you have passed the longitude of $165^{\circ} W.$ There is a reef and island supposed to exist in about $161^{\circ} W.$; this ground you will well examine.