

Your route or courses must be kept by compass: this you will find no difficulty in doing in an open country; but through the woods it will be better that all your party should be required to keep their own reckoning, which you will use, together with your own, in the same way as at sea. The longitude of Fort Nisqually for your departure you may take as $122^{\circ} 53' W.$, its latitude $47^{\circ} 07' 30'' N.$ To serve you for more accurate measurement than mere guess, time the paces of your horses, and the length of each pace will be your scale.

You will map or keep a diagram of your work on the pages of your journal, taking the ruled lines as a convenient scale of miles, marking thereon the mountains, hills, woods, rivers, brooks, and plains, within your horizon. This will be more effectually done by ascending any hill to take a bearing from. Every remarkable object you will designate by its native name; if it has none, give it one of your own.

A tape-line is furnished you to get any measurements with, such as the width of rivers, &c.; also find the velocity by the distance a chip will pass in a given time. You will measure also any remarkable trees you may meet with, their height and circumference. At all your stopping-places you will take a reading of the barometer, and the thermometers will be read every six hours, and as often besides as your change of altitude may make it desirable. As it is one great object to ascertain the height of all ranges, you will be particular in noting the barometer on them, and it will be desirable for some one of the party to ascend all remarkable hills: the barometer will also be sent; it is hoped that great care will be taken that it is not injured.

It may be desirable for Dr. Pickering and Mr. Brackenridge to make occasional short excursions from your direct route; you will in that case afford them all the facilities in your power to promote their researches.

You will study the safety as well as the comfort of your party, and bear in mind particularly the instructions for the treatment of the natives in my General Order of May 1st, 1841.

Finally, you are not to deviate from the route pointed out unless insurmountable difficulties should render it impossible to pursue the course specified, and in no case are you to go to the southward of the limits pointed out.

Wishing you success in the execution of these instructions,

I am, &c.,

CHARLES WILKES,
Commanding Exploring Expedition.

LIEUTENANT R. E. JOHNSON,
U. S. Brig Porpoise.