

north, but generally a deep swell will be perceived to form on it without breaking; avoid at all times to approach it too close.

The sea is much heavier on the bar with the flood-tide. The second sheet of the Columbia river shows the new and direct channel above Tongue point, explored by the expedition; it is convenient, and avoids all detention as to tide and liability to ground; the pilots are unacquainted with it. From off Tongue point steer direct for Bare bluff, until up with west end of Termination island, and then for the dead tree on that island. The chart will, however, be your best guide.

I am, very respectfully, &c., &c.,

CHARLES WILKES.

Com. A. J. DALLAS, U. S. N., Washington.

WASHINGTON, April 20, 1843.

Since these directions were written, I have little to add except some general cautions. 1. The entrance should never be attempted when the passage between the north and south spits is not well defined by the breakers on them; it is equally dangerous, whether it be concealed by the sea's breaking all the way across, or so smooth as not to show any break.

2. With a moderate breeze, the wind is apt to fail, or fall light, in the passage between the north and south spits, and leaves a vessel at the mercy of a strong tide and heavy swell.

3. The best time to enter and depart is after half ebb and before quarter flood; the tide then runs direct through the channels, and is confined to them: with the prevailing westerly winds, for those intending to take the north channel, the best time to enter is after half ebb, though the wind may be scant; yet the ebb tide, acting on the lee bow, will enable the vessel to keep to windward and avoid the spit on the middle sands. The south and southeast winds seldom prevail—they blow during the winter season; the anchorage in Baker's bay during the gales from this quarter is rough and much exposed.

I am, respectfully, your obedient servant,

CHARLES WILKES.

WASHINGTON CITY, August 2, 1846.