mean differences resulting, were plotted as diagrams in order to obtain graphically the best average values. These values, which are not the same for high water and low water, are given in the following table; and in applying them, care is taken to distinguish between upper and lower transit tides. The differences are in absolute time; and they thus give the time of the tide at Pictou in Standard time, for which the St. Paul Island tides are also calculated. It is to be noted that after the moon souths at St. Paul Island, low water occurs first, and high water afterwards. In using the table it is found best to set tide Number 13 centrally at the moon's maximum declination, and to allow any overlap to adjust itself at the nodes, where the differences are more nearly constant.

It will be noticed in the table that the difference for high water is constant for all similar tides; that is, for upper transit tides when the moon is in north declination, and for lower transit tides when the moon is in south declination. Also, the least differences or minimum values for both high water and low water, occur at the third tide after the moon's maximum declination; which is the same as the interval at spring tides after full and change of the moon.

TABLE FOR CALCULATION OF PICTOU TIDES FROM ST. PAUL ISLAND.

Differences to be *added* to the time of the tide at St. Paul Island; for Standard time.

In the numbering, the lower transit tides are enclosed in brackets. The moon's nodes indicate the points at which the moon crosses the equator, in passing from N. to S. declination; and S. to N.

The central tide, nearest to the maximum declination of the Moon is marked thus:—*

For High Water.			For Low Water.		
Moon North. — Number of Tide after Ascending Node.	Difference.	Moon South. — Number of Tide after Descending Node.	Moon North. — Number of Tide after Ascending Node.	Difference.	Moon South. — Number of Tide after Descending Node.
	H. M.			H. M.	
(0)	1 41	0	0	1 31	(0)
1	1 41	(1)	(1)	1 31	1
(2)	1 41	2	2	1 31	(2)
3	1 41	(3)	(3)	1 31	3
(4)	1 41	4	4	1 31	(4)
5	1 41	(5)	(5)	1 31	5
(6)	1 41	6	6	1 31	(6)
7	1 41	(7)	(7)	1 31	7
(8)	1 38	8	8	1 31	(8)
9	1 41	(9)	(9)	1 25	9
(10)	1 30	10	10	1 25	(10)
11	1 41	(11)	(11)	1 15	11
(12)	1 20	12	12	1 15	(12)
*13	1 41	(13)*	*(13)	1 15	13*
(14)	1 12	14	14	1 08	(14)
15	1 41	(15)	(15)	1 08	15
(16)	1 10	16	16	1 08	(16)
17	1 41	(17)	(17)	1 08	17
(18)	1 12	18	18	1 08	(18)
19	1 41	(19)	(19)	1 12	19
(20)	1 17	20	20	1 12	(20)
21	1 41	(21)	(21)	1 12	21
(22)	1 22	22	22	1 20	(22)
23	1 41	(23)	(23)	1 20	23
(24)	1 30	24	24	1 20	(24)
25	1 41	(25)	(25)	1 31	25
(26)	1 38	26	26	1 31	(26)
Descending Node		Ascending Node	Descending Node		Ascending Node