

At Pembina, August 22, 1849.

For time.—Double altitudes of sun's upper limb.

A.	A. M.		Deg.			h.	P. M.	
	min.	sec.		min.	sec.		min.	sec.
9	0	50	78	35	45	2	33	55
9	1	55	78	53	45	2	32	47
9	3	14	79	14	15	2	31	35
9	4	25	79	32	30	2	30	28
9	5	9	79	43	45	2	29	23
9	6	8	80	2	15	2	28	40
9	6	48	80	10	45	2	28	2
9	8	12	80	34	45	2	26	40
9	8	48	80	45	45	Lost.		
9	9	31	80	56	45	2	25	38
9	10	12	81	11	45	Lost.		
9	11	8	81	26	30	2	23	25

Deduced longitude in arc, 97 deg. 32.5 sec.
Index error, 2 min. 52.5 sec.*At Pembina, August 22, 1849.*For latitude.—Double altitudes of *a Aquile* (Altair) east of meridian.

A.	min.	sec.	Deg.	min.	sec.
8	3	30	92	7	30
8	7	49	92	45	45
8	9	32	93	4	15
8	11	59	93	27	30
8	14	10	93	47	30
8	15	59	94	2	15
8	17	20	94	16	15
8	18	43	94	26	15
8	20	40	94	41	15

Deduced latitude, 48 deg. 53 min. 56.5 sec.

Index error, 2 min. 52.5 sec.

Double meridian altitude *a Aquile*, 99 deg. 4 min. 45 sec.*At Pembina, August 22, 1849.*For latitude.—Double altitudes of *a Ursæ Minoris* (Polaris) east of meridian.

A.	min.	sec.	Deg.	min.	sec.
8	23	49	97	39	15
8	27	22	97	43	15
8	31	22	97	44	15
8	34	56	97	46	

Deduced latitude, 48 deg. 57 min. 49.5 sec.

Index error, 2 min. 52.5 sec.