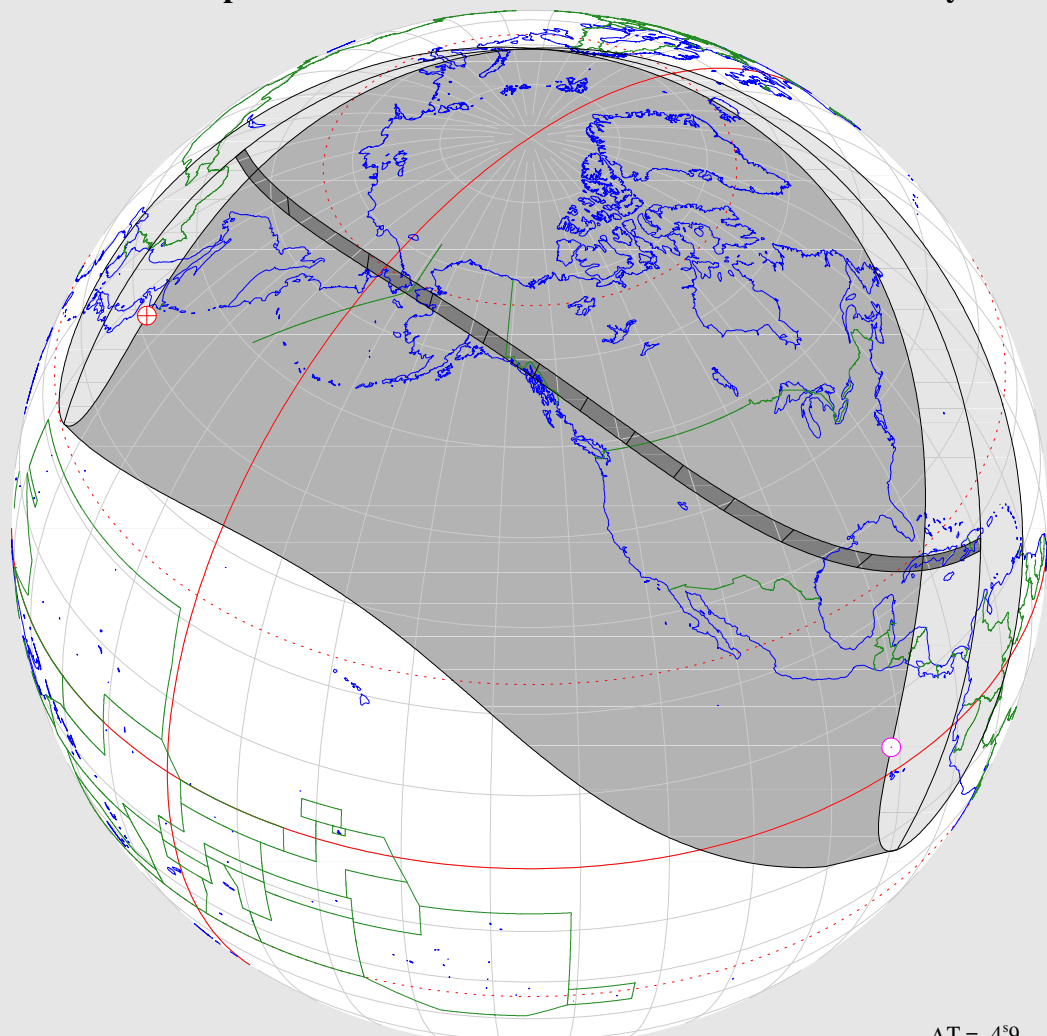


III. - Total Eclipse of the Sun

1878 July 29-30



$\Delta T = -4^s 9$

©HM Nautical Almanac Office

Globe centred on W 135°6 and N 41°0

Circumstances	Time (UT)		Longitude		Latitude	
	h	m	°	'	°	'
⊕ Eclipse begins; first contact with Earth	19	18.6	E 144	37.3	N 41	19.8
Beginning of southern limit of penumbra	19	53.6	E 144	29.2	N 24	01.7
Beginning of southern limit of umbra	20	24.0	E 118	08.9	N 53	43.6
Beginning of centre line; central eclipse begins	20	24.8	E 117	23.6	N 54	13.9
Beginning of northern limit of umbra	20	25.6	E 116	37.0	N 54	44.4
Central eclipse at local apparent noon	21	23.2	W 139	14.5	N 60	31.5
End of northern limit of umbra	23	09.3	W 69	27.1	N 18	06.1
End of centre line; central eclipse ends	23	10.1	W 69	52.8	N 17	30.5
End of southern limit of umbra	23	10.9	W 70	18.1	N 16	55.1
End of southern limit of penumbra	23	41.1	W 88	37.2	S 14	12.8
⊙ Eclipse ends; last contact with Earth	0	16.2	W 91	18.3	N 3	33.7