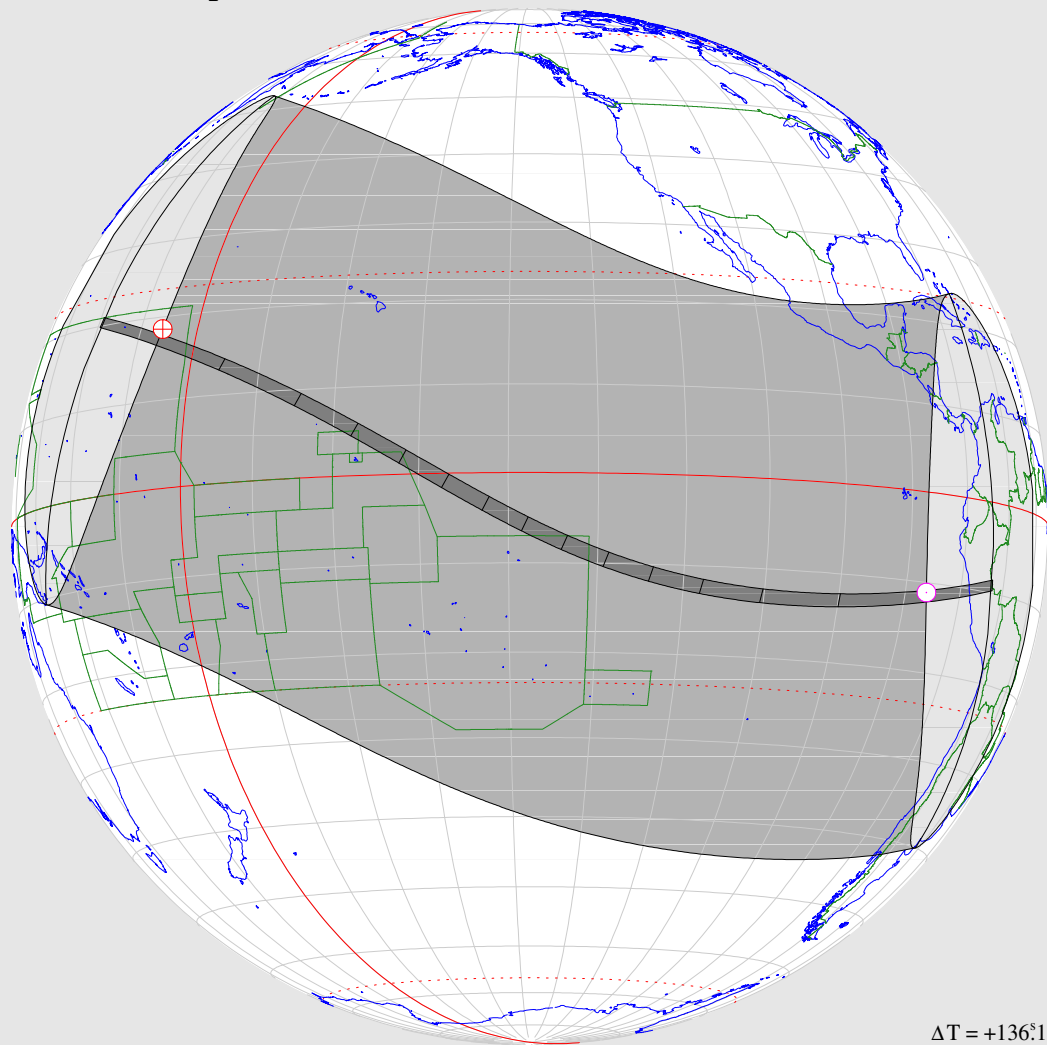


V. - Total Eclipse of the Sun

1604 October 22



$\Delta T = +136^s.1$

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Globe centred on W 137°6 and S 6°0

Circumstances	Time (UT)		Longitude		Latitude	
	h	m	°	'	°	'
⊕ Eclipse begins; first contact with Earth	18	23.8	E 174	03.5	N 18	28.7
Beginning of centre line; central eclipse begins	19	19.2	E 160	40.1	N 20	26.6
Beginning of northern limit of umbra	19	19.2	E 160	47.8	N 21	01.4
Beginning of southern limit of umbra	19	19.1	E 160	32.3	N 19	51.8
Beginning of southern limit of penumbra	19	33.0	E 150	44.9	S 10	36.4
Beginning of northern limit of penumbra	19	38.2	E 167	10.1	N 53	06.7
Central eclipse at local apparent noon	20	58.8	W 138	32.3	S 5	30.2
End of northern limit of penumbra	22	25.1	W 75	18.0	N 24	02.8
End of southern limit of penumbra	22	29.9	W 61	33.4	S 39	59.5
End of southern limit of umbra	22	43.9	W 72	50.8	S 9	42.0
End of northern limit of umbra	22	43.9	W 73	04.9	S 8	32.6
End of centre line; central eclipse ends	22	43.9	W 72	58.0	S 9	07.3
⊙ Eclipse ends; last contact with Earth	23	39.2	W 86	23.6	S 11	05.5