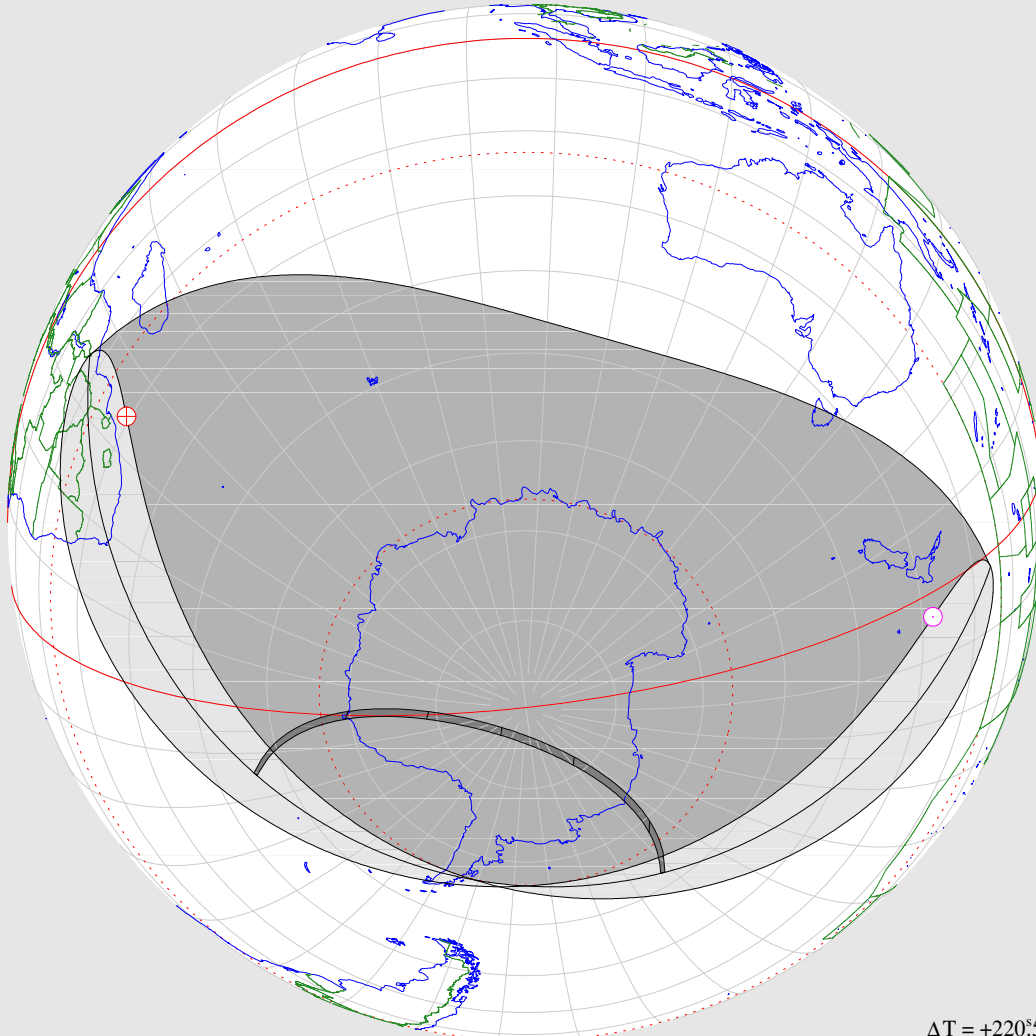


IV. - Total Eclipse of the Sun

1536 December 13



©HM Nautical Almanac Office

$\Delta T = +220^s.5$
Globe centred on E 96°6' and S 69°1'

Circumstances	Time (UT)		Longitude	Latitude
	h	m	^o /	^o /
⊕ Eclipse begins; first contact with Earth	2	45.5	E 34 26.0	S 29 22.9
Beginning of northern limit of penumbra	3	09.4	E 35 04.4	S 16 50.0
Beginning of northern limit of umbra	4	18.3	W 14 22.0	S 55 48.9
Beginning of centre line; central eclipse begins	4	18.6	W 14 41.5	S 55 56.9
Beginning of southern limit of umbra	4	19.0	W 15 01.4	S 56 05.0
Central eclipse at local apperent midnight	5	04.2	W 76 03.7	S 86 18.0
End of southern limit of umbra	5	32.1	W117 19.6	S 62 15.2
End of centre line; central eclipse ends	5	32.5	W117 48.5	S 62 08.6
End of northern limit of umbra	5	32.9	W118 17.0	S 62 02.0
End of northern limit of penumbra	6	41.7	W178 14.8	S 25 53.7
⊙ Eclipse ends; last contact with Earth	7	05.6	W176 25.4	S 38 09.3