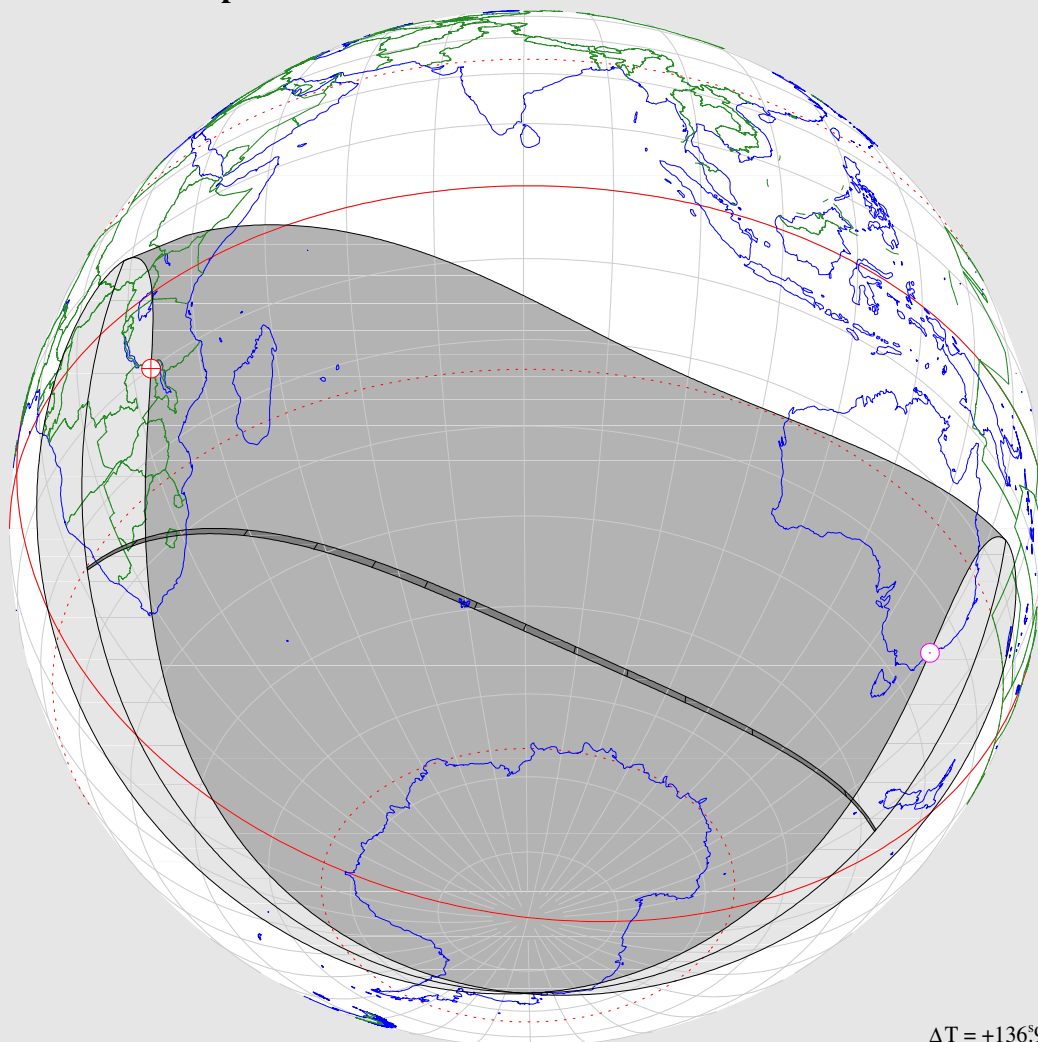


III. - Total Eclipse of the Sun

1603 November 03



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$\Delta T = +136^s.9$
Globe centred on E 80°5' and S 41°4'

Circumstances	Time (UT)	Longitude	Latitude
	h m	° /	° /
⊕ Eclipse begins; first contact with Earth	3 21.6	E 32 54.2	S 10 00.8
Beginning of northern limit of penumbra	3 59.6	E 28 27.6	N 8 48.9
Beginning of northern limit of umbra	4 27.8	E 12 20.1	S 23 36.3
Beginning of centre line; central eclipse begins	4 28.0	E 12 15.2	S 23 43.9
Beginning of southern limit of umbra	4 28.2	E 12 10.2	S 23 51.6
Central eclipse at local apparent noon	6 07.1	E 84 13.4	S 53 31.1
End of southern limit of umbra	7 16.9	E 174 00.4	S 47 55.8
End of centre line; central eclipse ends	7 17.1	E 173 54.5	S 47 49.6
End of northern limit of umbra	7 17.2	E 173 48.6	S 47 43.5
End of northern limit of penumbra	7 45.6	E 153 55.8	S 15 49.4
⊙ Eclipse ends; last contact with Earth	8 23.6	E 150 40.8	S 34 28.3