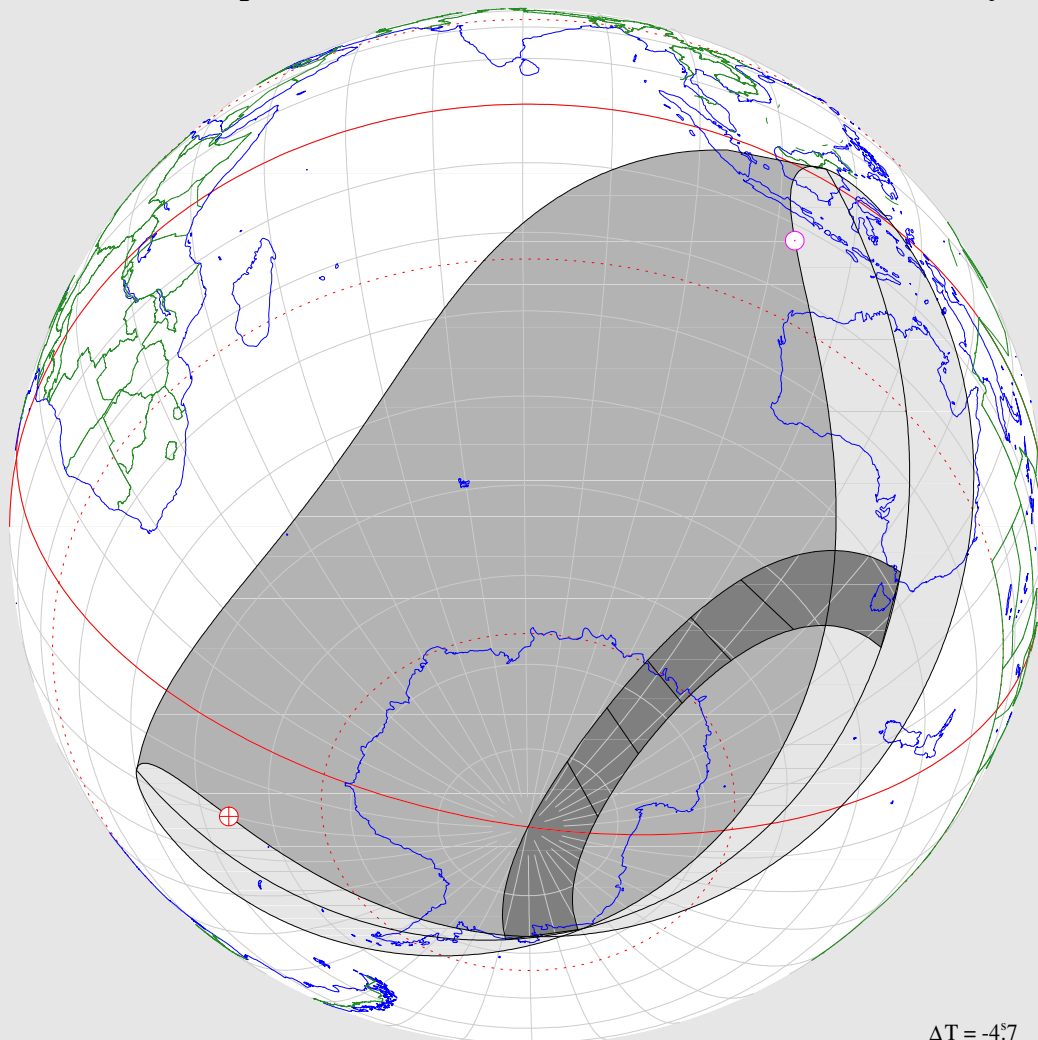


# I. - Annular Eclipse of the Sun

1878 February 02



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$\Delta T = -4^s.7$   
Globe centred on E 80°6 and S 54°6

Circumstances	Time (UT)	Longitude	Latitude
	h m	° /	° /
⊕ Eclipse begins; first contact with Earth	5 56.6	W 20 17.2	S 54 00.8
Beginning of northern limit of penumbra	6 28.0	W 18 17.7	S 40 09.3
Beginning of northern limit of umbra	7 32.8	W 91 10.8	S 72 19.5
Beginning of centre line; central eclipse begins	7 39.1	W 103 42.3	S 73 02.9
Central eclipse at local apperent midnight	7 44.0	W 112 31.0	S 83 36.5
Beginning of southern limit of umbra	7 46.6	W 118 44.4	S 73 06.8
End of southern limit of umbra	9 09.8	E 153 17.0	S 44 27.6
End of centre line; central eclipse ends	9 17.2	E 149 21.5	S 40 55.1
End of northern limit of umbra	9 23.6	E 146 08.5	S 37 48.6
End of northern limit of penumbra	10 28.1	E 115 45.8	N 2 21.2
⊙ Eclipse ends; last contact with Earth	10 59.6	E 112 24.6	S 12 25.5