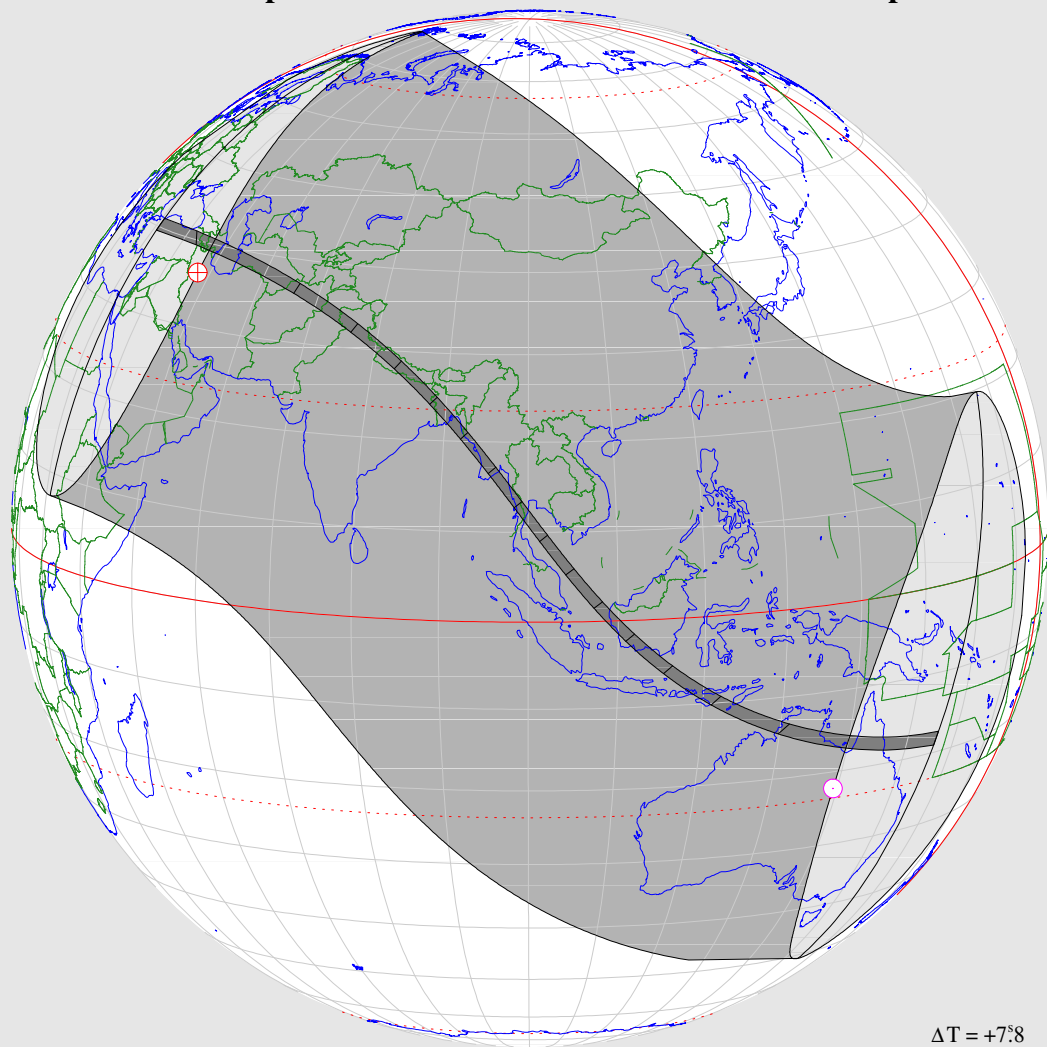


IV. - Annular Eclipse of the Sun

1857 September 18



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$\Delta T = +7^s.8$
Globe centred on E 100°2 and N 10°4

Circumstances	Time (UT)	Longitude	Latitude
	h m	° /	° /
⊕ Eclipse begins; first contact with Earth	2 38.4	E 47 31.2	N36 18.0
Beginning of southern limit of umbra	3 43.1	E 31 10.3	N39 29.7
Beginning of centre line; central eclipse begins	3 43.5	E 31 02.6	N40 17.9
Beginning of northern limit of umbra	3 43.8	E 30 54.5	N41 06.2
Beginning of southern limit of penumbra	3 48.1	E 31 15.2	N 7 29.6
Beginning of northern limit of penumbra	4 21.5	E 14 09.4	N77 57.0
Central eclipse at local apparent noon	5 23.7	E 97 36.2	N14 38.0
End of northern limit of penumbra	6 51.0	E166 26.8	N19 45.8
End of southern limit of penumbra	7 23.4	E155 21.6	S50 58.8
End of northern limit of umbra	7 28.2	E155 53.3	S17 21.6
End of centre line; central eclipse ends	7 28.5	E155 46.3	S18 11.4
End of southern limit of umbra	7 28.9	E155 39.6	S19 01.0
⊙ Eclipse ends; last contact with Earth	8 33.7	E139 20.9	S22 11.8