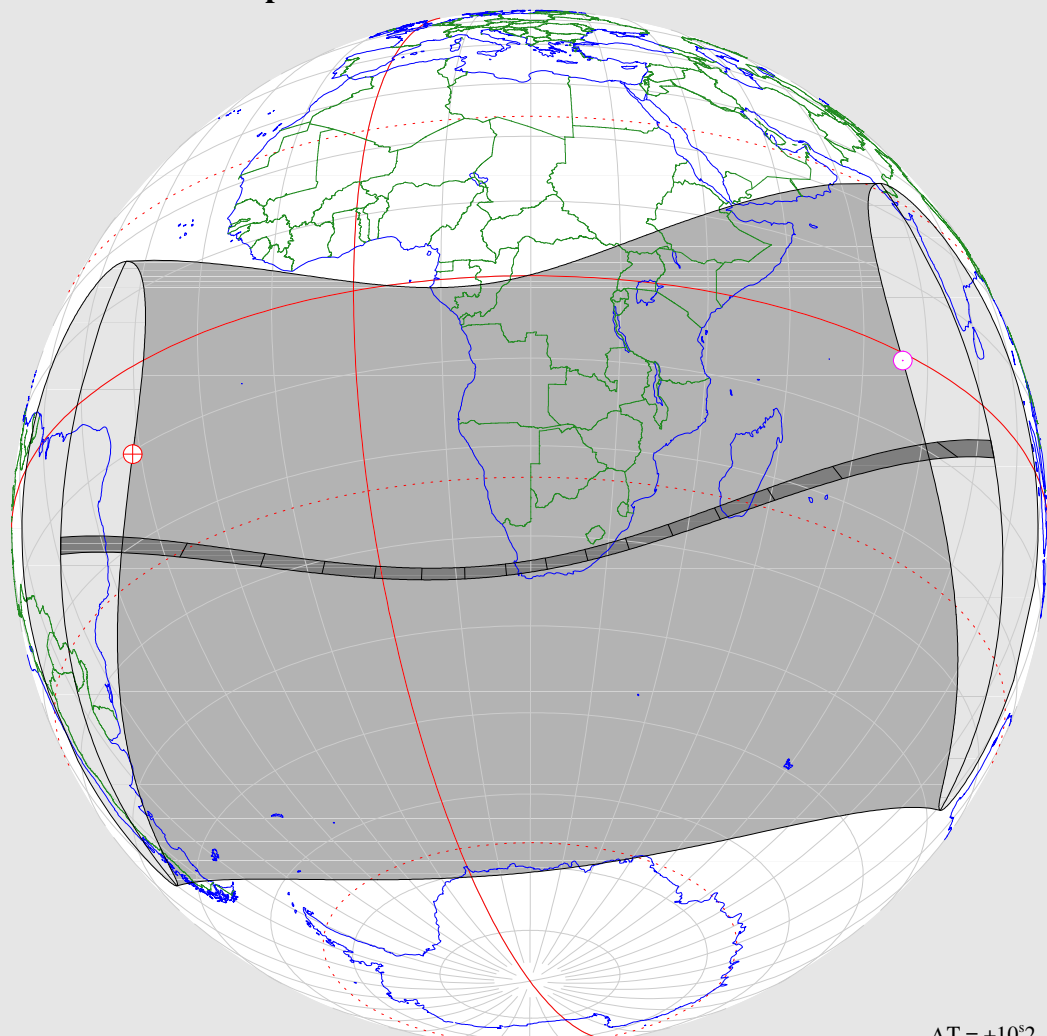


VI. - Annular Eclipse of the Sun

1824 December 20



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$\Delta T = +10^s 2$
Globe centred on E 19°9' and S 29°2'

Circumstances	Time (UT)	Longitude	Latitude
	^h ^m	^o /	^o /
⊕ Eclipse begins; first contact with Earth	7 44.8	W 31 16.7	S 10 22.3
Beginning of northern limit of penumbra	8 43.5	W 34 14.7	N 16 01.0
Beginning of northern limit of umbra	8 48.3	W 48 15.6	S 12 48.8
Beginning of centre line; central eclipse begins	8 49.0	W 48 46.7	S 13 36.7
Beginning of southern limit of umbra	8 49.6	W 49 18.3	S 14 24.8
Beginning of southern limit of penumbra	9 30.4	W 80 03.7	S 46 15.6
Central eclipse at local apparent noon	10 38.7	E 19 49.3	S 33 23.2
End of southern limit of penumbra	11 50.5	E 111 25.2	S 37 38.3
End of southern limit of umbra	12 31.3	E 83 52.9	S 5 02.1
End of centre line; central eclipse ends	12 31.9	E 83 21.6	S 4 12.4
End of northern limit of umbra	12 32.5	E 82 50.7	S 3 22.8
End of northern limit of penumbra	12 37.2	E 68 20.6	N 25 20.0
⊙ Eclipse ends; last contact with Earth	13 36.1	E 65 53.8	S 0 56.9