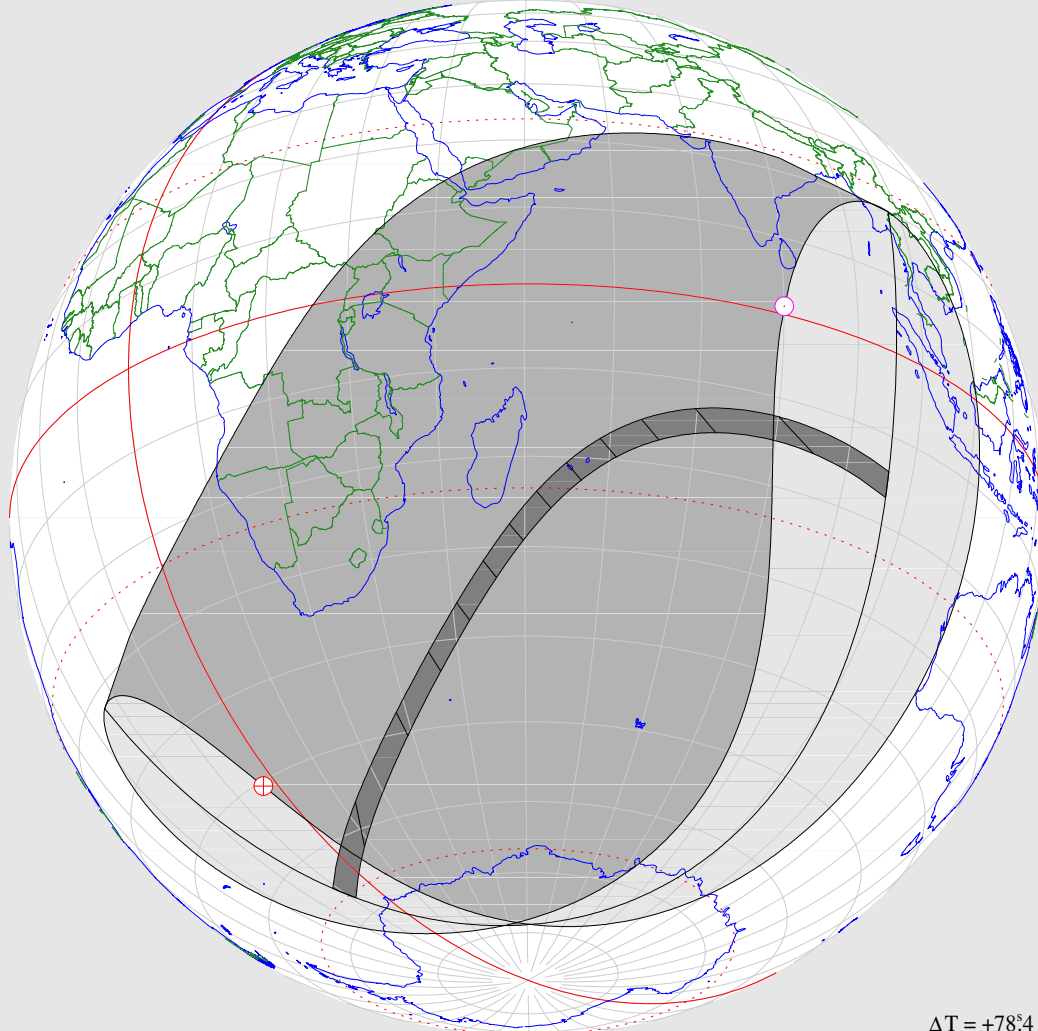


I. - Annular Eclipse of the Sun

1632 April 19



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$\Delta T = +78^s.4$
Globe centred on E 50°4' and S 26°8'

Circumstances	Time (UT)	Longitude	Latitude
	^h ^m	^o /	^o /
⊕ Eclipse begins; first contact with Earth	7 07.2	W 2 58.8	S 50 30.4
Beginning of northern limit of penumbra	8 03.1	W 23 51.3	S 31 57.7
Beginning of northern limit of umbra	8 24.5	W 11 16.1	S 64 40.4
Beginning of centre line; central eclipse begins	8 26.4	W 10 04.3	S 65 57.3
Beginning of southern limit of umbra	8 28.3	W 8 41.1	S 67 14.8
Central eclipse at local apparent noon	9 14.2	E 41 09.6	S 37 13.6
End of southern limit of umbra	11 18.5	E 96 33.2	S 16 55.5
End of centre line; central eclipse ends	11 20.4	E 96 23.9	S 15 26.9
End of northern limit of umbra	11 22.2	E 96 15.5	S 14 00.3
End of northern limit of penumbra	11 43.3	E 98 04.3	N 19 56.8
⊙ Eclipse ends; last contact with Earth	12 39.5	E 80 02.3	N 1 02.0