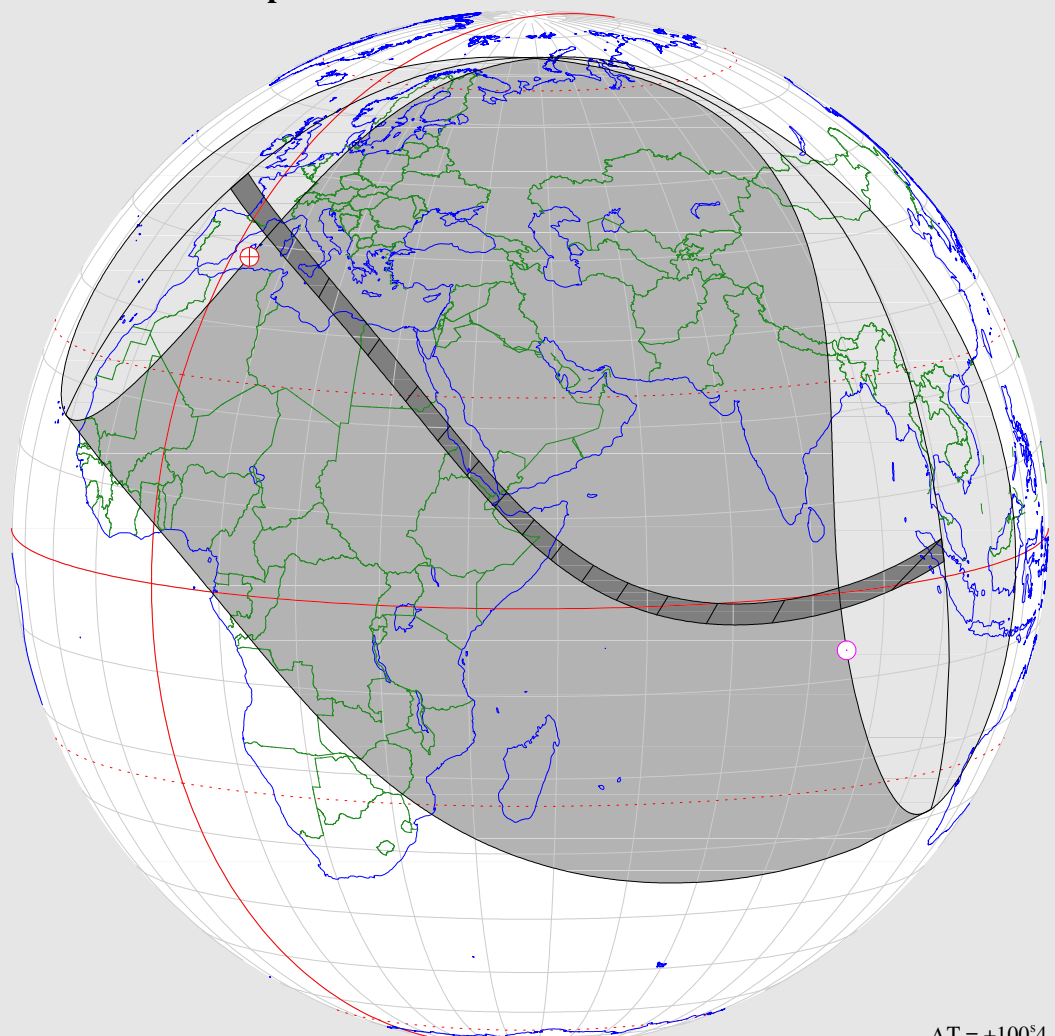


III. - Annular Eclipse of the Sun

2059 November 05



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$\Delta T = +100^s.4$
Globe centred on E 46°9' and N 8°9'

Circumstances	Time (UT)	Longitude	Latitude
	h m	° /	° /
⊕ Eclipse begins; first contact with Earth	6 21.6	E 3 18.6	N38 18.0
Beginning of southern limit of penumbra	7 29.6	W 21 51.0	N16 05.4
Beginning of southern limit of umbra	7 31.6	W 9 53.0	N46 19.9
Beginning of centre line; central eclipse begins	7 32.5	W 9 19.7	N47 33.1
Beginning of northern limit of umbra	7 33.4	W 8 44.6	N48 46.8
Central eclipse at local apparent noon	8 54.2	E 42 20.9	N13 23.5
End of northern limit of umbra	11 00.0	E 99 40.9	N 4 17.7
End of centre line; central eclipse ends	11 00.9	E 99 49.0	N 3 00.9
End of southern limit of umbra	11 01.7	E 99 57.8	N 1 44.9
End of southern limit of penumbra	11 03.4	E 109 00.2	S 28 57.7
⊙ Eclipse ends; last contact with Earth	12 11.6	E 84 51.2	S 6 35.7