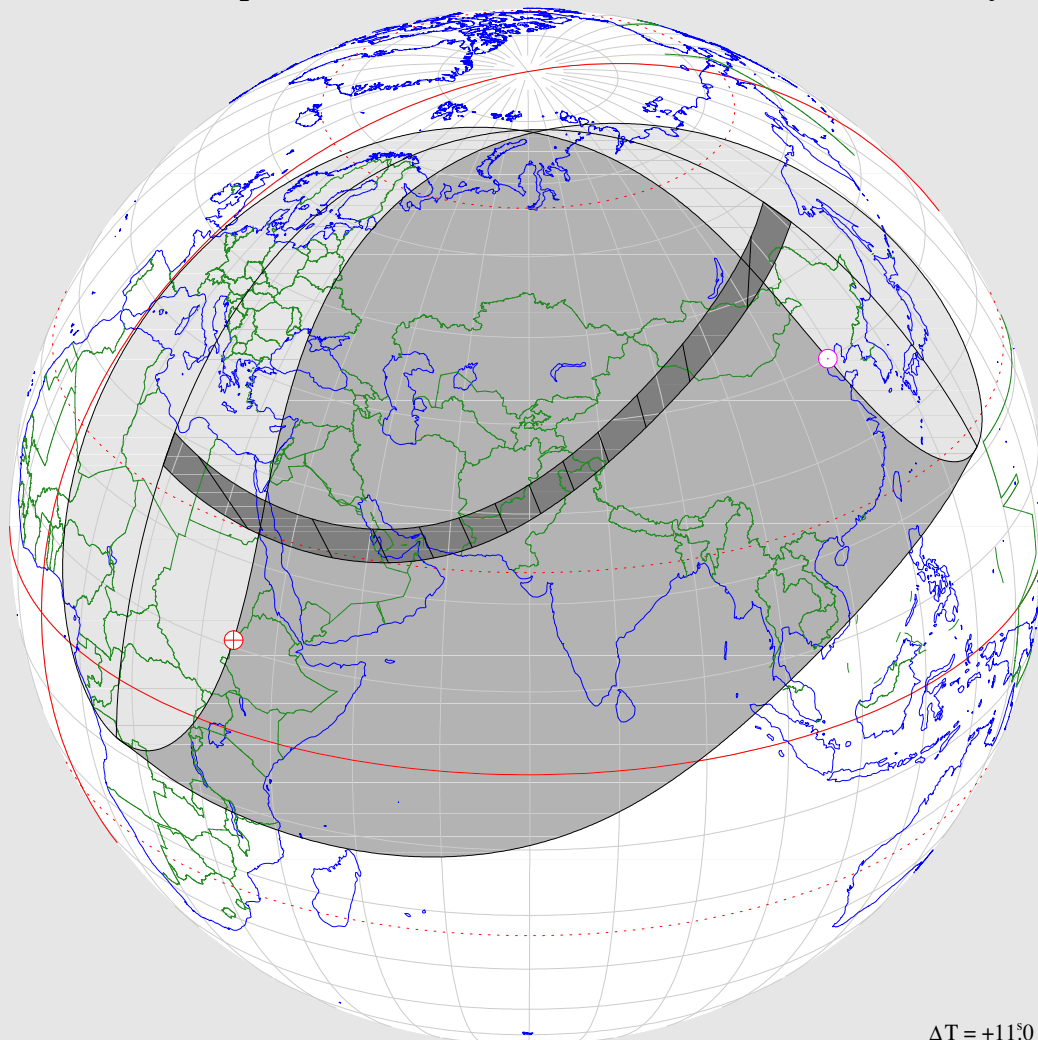


I. - Annular Eclipse of the Sun

1719 February 19



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$\Delta T = +11^s 0$
Globe centred on E 69°8' and N 28°6'

Circumstances	Time (UT)	Longitude	Latitude
	h m	° /	° /
⊕ Eclipse begins; first contact with Earth	4 05.4	E 34 28.5	N 10 48.9
Beginning of southern limit of penumbra	5 02.0	E 16 26.2	S 8 05.0
Beginning of southern limit of umbra	5 24.2	E 18 14.0	N 26 02.0
Beginning of centre line; central eclipse begins	5 26.7	E 18 06.2	N 27 57.0
Beginning of northern limit of umbra	5 29.4	E 17 57.4	N 29 55.6
Central eclipse at local apparent noon	7 14.3	E 75 00.8	N 33 58.5
End of northern limit of umbra	8 15.8	E 130 19.9	N 58 33.6
End of centre line; central eclipse ends	8 18.5	E 131 03.6	N 56 40.2
End of southern limit of umbra	8 21.0	E 131 39.9	N 54 49.6
End of southern limit of penumbra	8 43.4	E 138 13.2	N 21 16.6
⊙ Eclipse ends; last contact with Earth	9 40.0	E 118 51.0	N 40 00.1