

## II. - Annular-Total Eclipse of the Sun

1703 January 17



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$\Delta T = +9^s 0$   
Globe centred on E 16°1' and S 52°9'

Circumstances	Time (UT)		Longitude	Latitude
	h	m	° /	° /
⊕ Eclipse begins; first contact with Earth	8	59.8	W 55 46.0	S 31 24.9
Beginning of northern limit of penumbra	9	31.0	W 56 12.0	S 15 36.5
Beginning of southern limit of umbra	10	12.4	W 85 38.3	S 48 11.1
Beginning of centre line; central eclipse begins	10	12.4	W 85 40.7	S 48 12.8
Beginning of northern limit of umbra	10	12.5	W 85 43.2	S 48 14.6
Central eclipse at local apparent noon	11	16.9	E 13 26.3	S 68 41.9
End of centre line; central eclipse ends	12	36.1	E 101 25.8	S 38 47.7
End of southern limit of umbra	12	36.2	E 101 25.0	S 38 46.9
End of northern limit of umbra	12	36.1	E 101 26.6	S 38 48.4
End of northern limit of penumbra	13	17.6	E 75 20.9	S 5 27.8
⊙ Eclipse ends; last contact with Earth	13	48.8	E 74 03.8	S 21 27.7