

# I. - Annular Eclipse of the Sun

1654 February 17



$\Delta T = +43^{\text{s}}9$

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Globe centred on E 95°6' and S 31°5'

Circumstances	Time (UT)		Longitude	Latitude
	h	m	° / ' / "	° / ' / "
⊕ Eclipse begins; first contact with Earth	3	55.3	E 23 09.6	S 43 48.3
Beginning of northern limit of penumbra	4	40.6	E 18 25.6	S 22 47.6
Beginning of northern limit of umbra	5	00.9	E 1 28.6	S 54 06.1
Beginning of centre line; central eclipse begins	5	01.4	E 1 08.3	S 54 27.8
Beginning of southern limit of umbra	5	01.8	E 0 47.6	S 54 49.5
Central eclipse at local apparent noon	6	09.1	E 91 22.4	S 45 55.3
End of southern limit of umbra	8	10.3	E 151 57.4	S 4 07.7
End of centre line; central eclipse ends	8	10.6	E 151 47.0	S 3 46.4
End of northern limit of umbra	8	11.0	E 151 36.6	S 3 25.1
End of northern limit of penumbra	8	31.1	E 139 20.8	N 28 27.4
⊙ Eclipse ends; last contact with Earth	9	16.6	E 132 58.5	N 7 14.9