

# V. - Annular Eclipse of the Sun

1633 October 03



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$\Delta T = +74^m 7^s$   
Globe centred on E 83°1' and S 10°3'

Circumstances	Time (UT)	Longitude	Latitude
	<sup>h</sup> <sup>m</sup>	<sup>o</sup> /	<sup>o</sup> /
⊕ Eclipse begins; first contact with Earth	3 03.5	E 43 08.4	N23 47.0
Beginning of northern limit of umbra	4 07.0	E 27 05.6	N21 34.5
Beginning of centre line; central eclipse begins	4 07.2	E 26 58.6	N20 51.9
Beginning of southern limit of umbra	4 07.5	E 26 51.5	N20 09.2
Beginning of northern limit of penumbra	4 14.6	E 29 05.2	N53 37.2
Beginning of southern limit of penumbra	4 39.8	E 16 10.8	S 15 33.1
Central eclipse at local apparent noon	6 08.1	E 85 12.7	S 13 22.7
End of southern limit of penumbra	7 18.4	E 171 06.2	S 72 59.2
End of northern limit of penumbra	7 44.5	E 151 25.3	S 4 12.4
End of southern limit of umbra	7 51.1	E 152 37.3	S 37 42.6
End of centre line; central eclipse ends	7 51.3	E 152 29.0	S 37 01.5
End of northern limit of umbra	7 51.6	E 152 20.9	S 36 20.4
⊙ Eclipse ends; last contact with Earth	8 55.0	E 136 15.8	S 34 06.9