

# I. - Annular Eclipse of the Sun

1601 January 04



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$\Delta T = +139^s.2$   
Globe centred on W  $7^{\circ}6'$  and S  $6^{\circ}8'$

Circumstances	Time (UT)	Longitude	Latitude
	<sup>h</sup> <sup>m</sup>	<sup>o</sup> /	<sup>o</sup> /
⊕ Eclipse begins; first contact with Earth	9 23.5	W 50 33.0	S 2 46.8
Beginning of southern limit of umbra	10 30.2	W 65 42.0	N 0 49.0
Beginning of centre line; central eclipse begins	10 30.3	W 65 15.4	N 1 55.9
Beginning of northern limit of umbra	10 30.4	W 64 49.2	N 3 03.1
Beginning of southern limit of penumbra	10 44.1	W 82 22.0	S 27 58.6
Beginning of northern limit of penumbra	11 04.7	W 55 36.9	N 37 55.5
Central eclipse at local apparent noon	12 28.1	W 5 31.4	S 8 31.2
End of northern limit of penumbra	13 39.6	E 26 13.4	N 57 08.6
End of southern limit of penumbra	14 00.6	E 63 56.9	S 6 08.3
End of northern limit of umbra	14 14.1	E 46 47.0	N 24 55.6
End of centre line; central eclipse ends	14 14.2	E 47 18.2	N 23 50.8
End of southern limit of umbra	14 14.3	E 47 49.2	N 22 46.2
⊙ Eclipse ends; last contact with Earth	15 20.9	E 32 55.1	N 19 12.3