

## II. - Annular Eclipse of the Sun

1977 April 18



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$\Delta T = +47^s.8$   
Globe centred on E 28°2' and S 11°8'

Circumstances	Time (UT)	Longitude	Latitude
	<sup>h</sup> <sup>m</sup>	<sup>o</sup> /	<sup>o</sup> /
⊕ Eclipse begins; first contact with Earth	7 32.7	W 17 07.8	S 29 30.2
Beginning of northern limit of penumbra	8 40.8	W 39 17.1	S 5 36.1
Beginning of northern limit of umbra	8 42.3	W 32 28.3	S 36 52.3
Beginning of centre line; central eclipse begins	8 43.0	W 32 18.0	S 38 04.1
Beginning of southern limit of umbra	8 43.9	W 32 07.4	S 39 16.6
Beginning of southern limit of penumbra	9 59.7	E 33 38.9	S 79 07.4
Central eclipse at local apparent noon	10 18.0	E 25 20.5	S 13 39.4
End of southern limit of penumbra	11 02.1	E 85 55.7	S 58 38.9
End of southern limit of umbra	12 17.6	E 83 34.2	S 9 31.5
End of centre line; central eclipse ends	12 18.5	E 83 36.4	S 8 17.3
End of northern limit of umbra	12 19.3	E 83 39.1	S 7 03.8
End of northern limit of penumbra	12 20.5	E 89 41.8	N 24 18.3
⊙ Eclipse ends; last contact with Earth	13 28.8	E 67 41.9	N 0 21.9