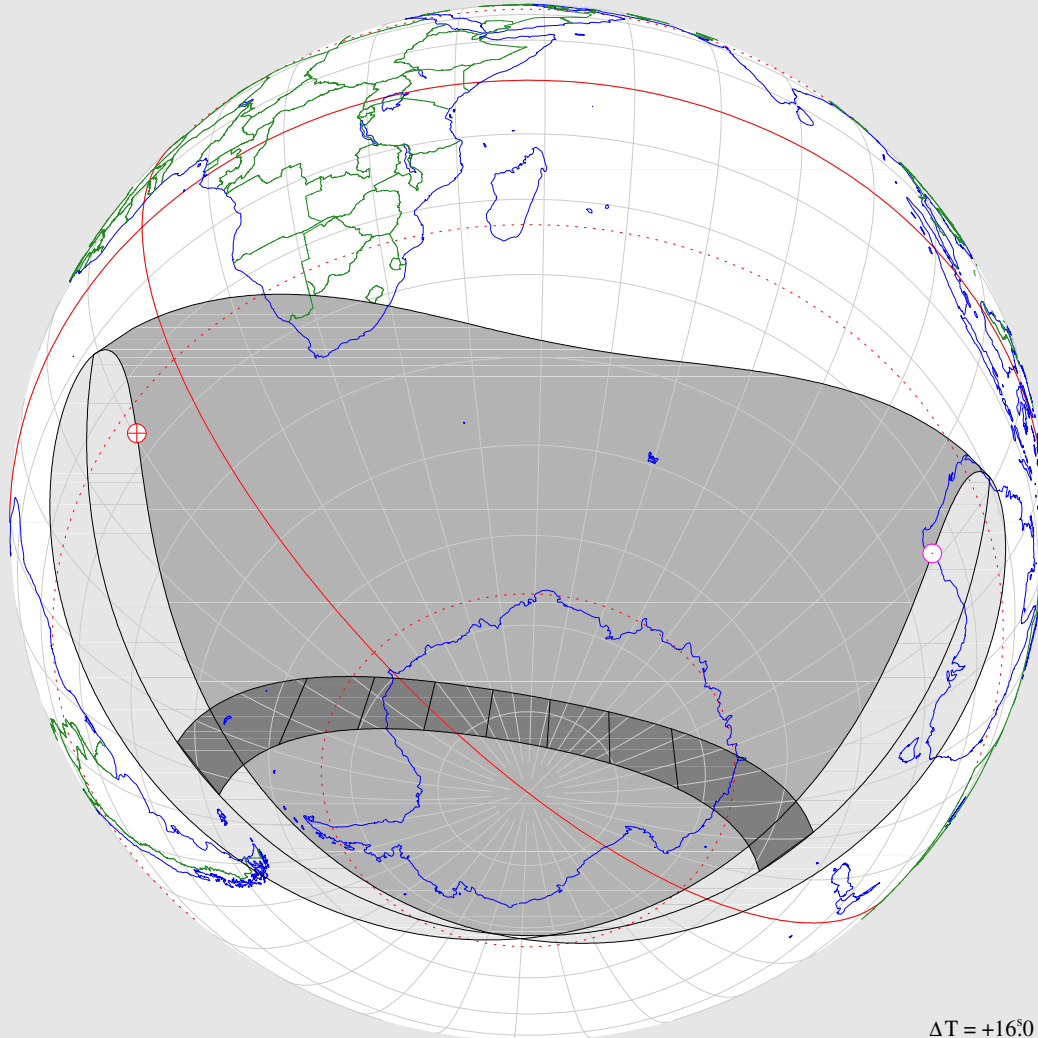


IV. - Annular Eclipse of the Sun

1769 November 28



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$\Delta T = +16^{\circ}0$
Globe centred on E 48°1' and S 58°6'

Circumstances	Time (UT)	Longitude	Latitude
	h m	° /	° /
⊕ Eclipse begins; first contact with Earth	5 41.3	W 9 36.4	S 26 46.2
Beginning of northern limit of penumbra	6 12.8	W 10 49.3	S 11 54.0
Beginning of northern limit of umbra	7 11.8	W 45 57.8	S 47 17.2
Beginning of centre line; central eclipse begins	7 17.3	W 49 48.5	S 49 45.5
Beginning of southern limit of umbra	7 23.4	W 54 21.4	S 52 24.3
Central eclipse at local apparent noon	8 25.7	E 50 41.4	S 80 54.2
End of southern limit of umbra	9 13.2	E 168 56.7	S 58 40.3
End of centre line; central eclipse ends	9 19.4	E 163 17.0	S 56 17.0
End of northern limit of umbra	9 24.9	E 158 34.7	S 53 59.9
End of northern limit of penumbra	10 24.0	E 119 08.2	S 19 32.7
⊙ Eclipse ends; last contact with Earth	10 55.5	E 118 44.9	S 34 14.2