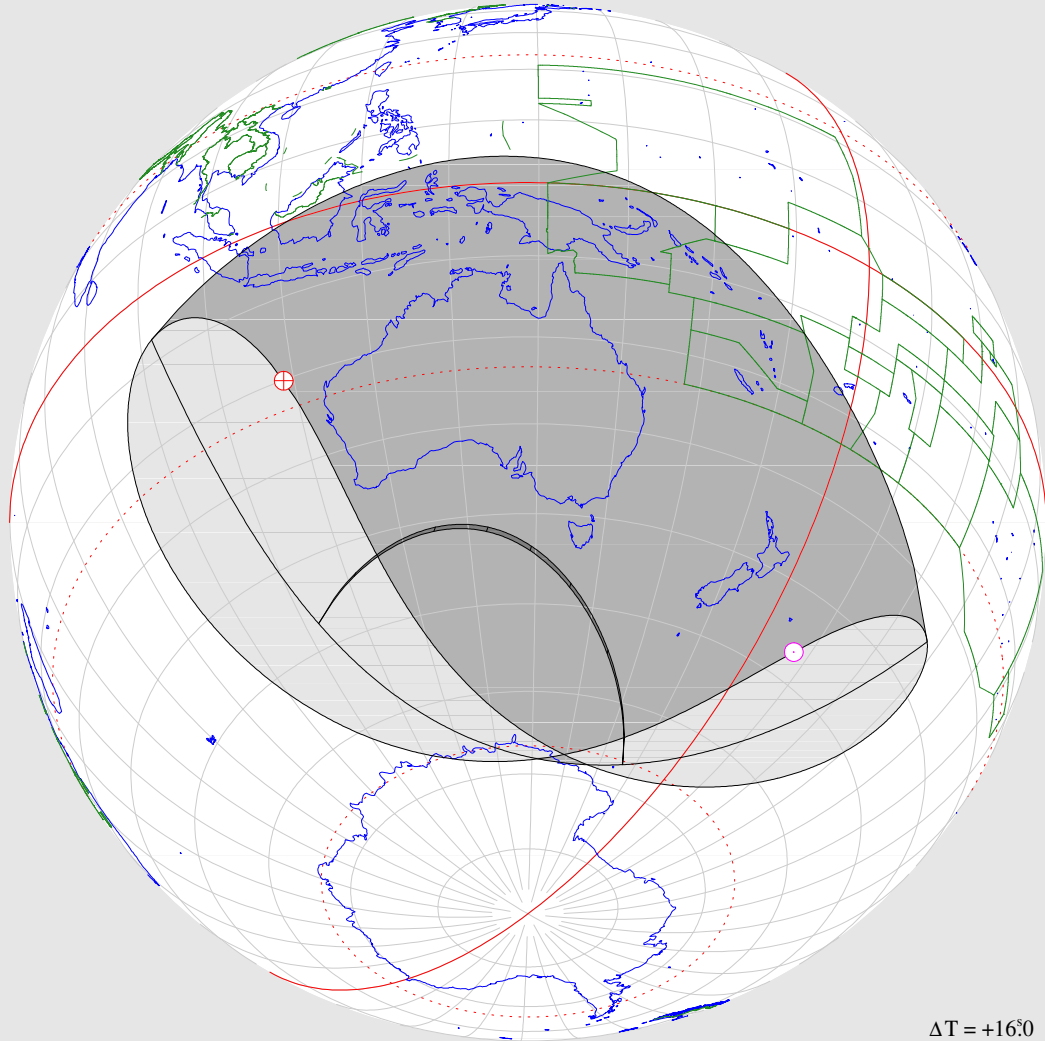


# IV. - Annular-Total Eclipse of the Sun

1768 July 13-14



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$\Delta T = +16^s$   
Globe centred on E 138°8' and S 41°0'

Circumstances	Time (UT)	Longitude	Latitude
	<sup>h</sup> <sup>m</sup>	<sup>o</sup> /	<sup>o</sup> /
⊕ Eclipse begins; first contact with Earth	23 24.1	E 108 40.6	S 20 05.1
Beginning of northern limit of penumbra	0 09.4	E 91 46.6	S 6 57.8
Beginning of centre line; central eclipse begins	0 57.5	E 102 21.5	S 47 11.3
Beginning of southern limit of umbra	0 57.5	E 102 21.5	S 47 11.2
Beginning of northern limit of umbra	0 57.5	E 102 21.6	S 47 11.3
Central eclipse at local apparent noon	2 07.4	E 149 28.6	S 50 34.7
End of southern limit of umbra	2 23.5	E 166 30.7	S 66 56.3
End of centre line; central eclipse ends	2 23.5	E 166 33.5	S 66 55.9
End of northern limit of umbra	2 23.5	E 166 36.3	S 66 55.4
End of northern limit of penumbra	3 11.9	W 152 22.4	S 34 19.1
⊙ Eclipse ends; last contact with Earth	3 57.2	W 172 50.8	S 46 39.6