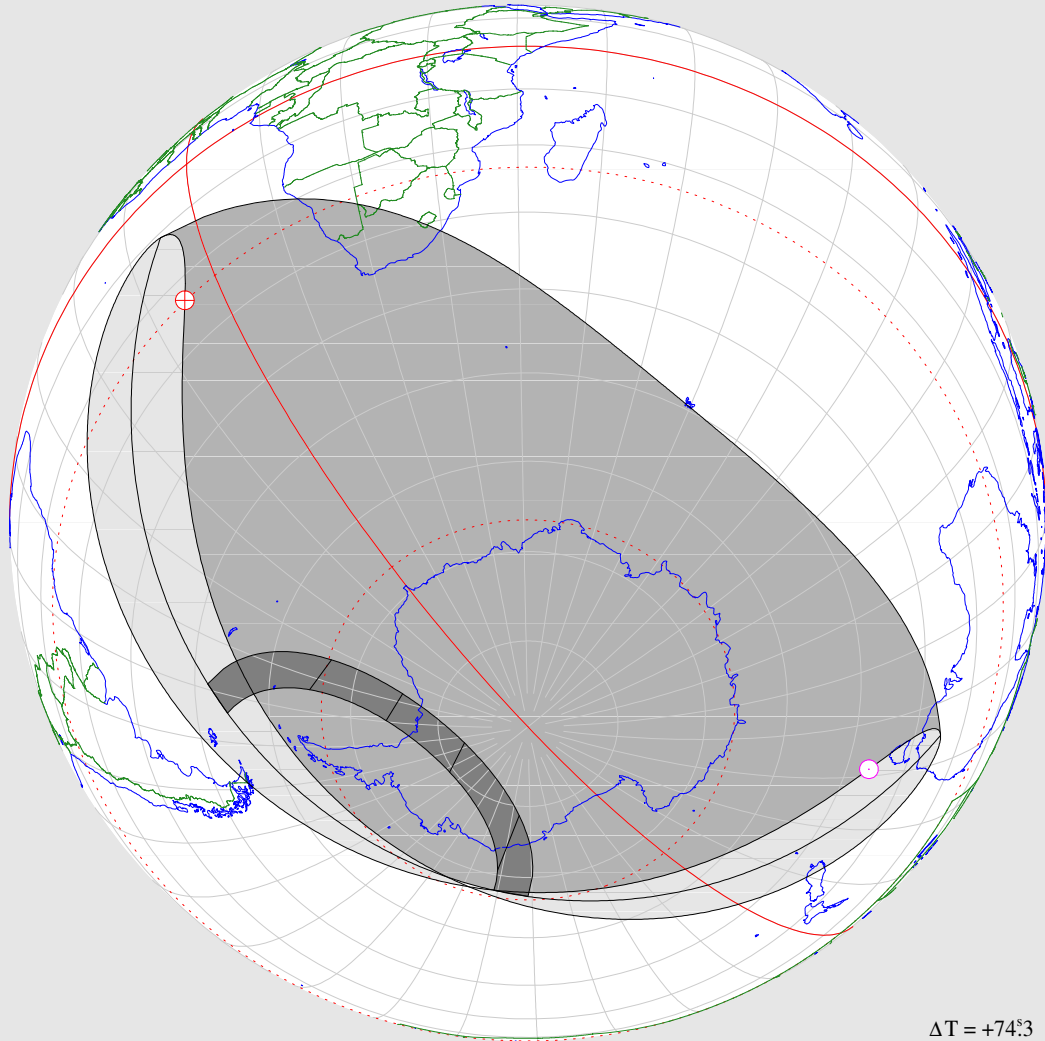


# IV. - Total Eclipse of the Sun

2021 December 04



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$\Delta T = +74^s 3$   
Globe centred on E 41°2' and S 66°8'

Circumstances	Time (UT)	Longitude	Latitude
	h m	° /	° /
⊕ Eclipse begins; first contact with Earth	5 29.2	W 4 55.3	S 23 19.4
Beginning of northern limit of penumbra	5 52.0	W 5 00.1	S 10 57.4
Beginning of northern limit of umbra	7 00.1	W 48 54.0	S 51 51.3
Beginning of centre line; central eclipse begins	7 02.8	W 51 12.1	S 53 05.5
Beginning of southern limit of umbra	7 05.8	W 53 50.5	S 54 25.4
Central eclipse at local apperent midnight	7 56.1	W121 28.4	S 78 58.2
End of southern limit of umbra	8 00.7	W128 52.7	S 67 36.3
End of centre line; central eclipse ends	8 03.7	W134 07.5	S 67 22.0
End of northern limit of umbra	8 06.4	W138 48.1	S 67 02.6
End of northern limit of penumbra	9 14.6	E 145 26.0	S 34 47.3
⊙ Eclipse ends; last contact with Earth	9 37.4	E 148 41.2	S 46 23.7