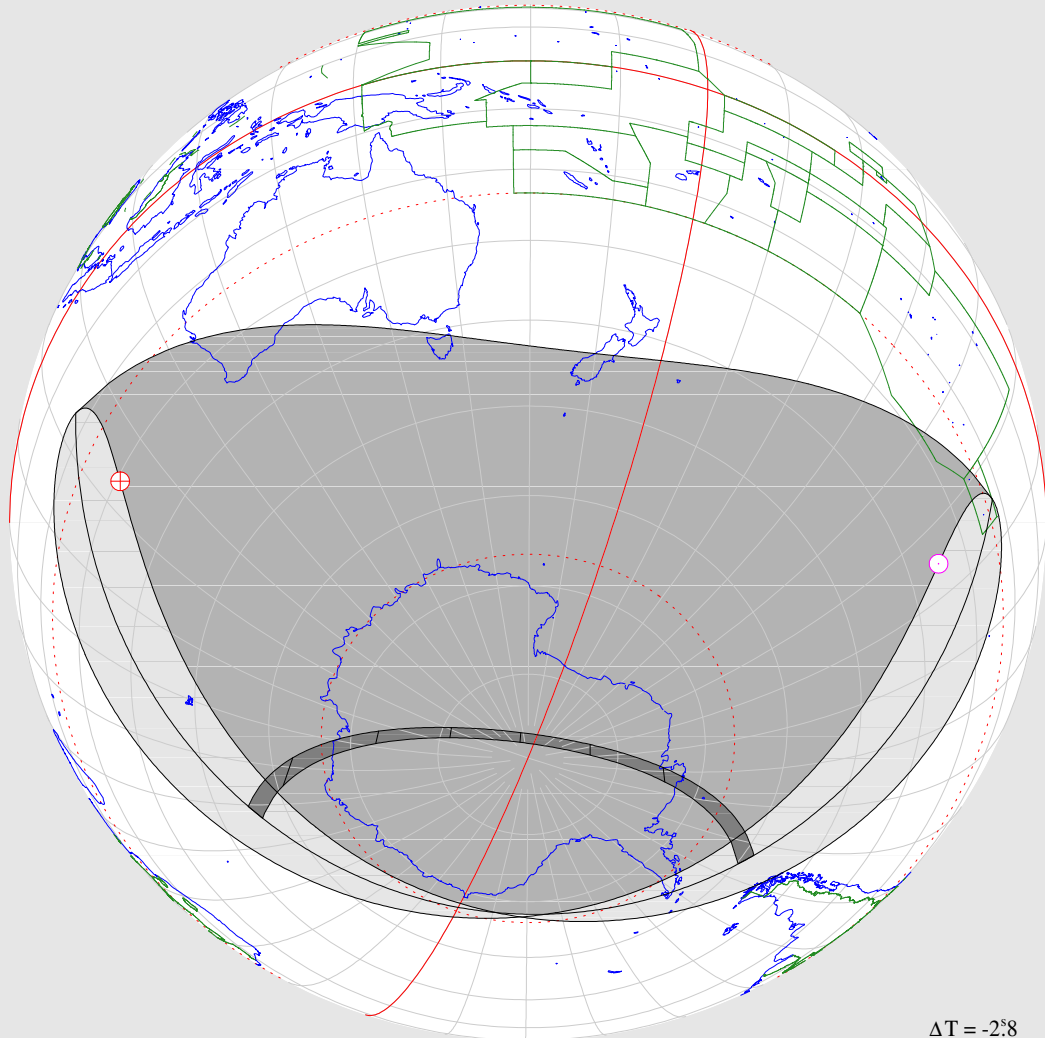


IV. - Annular Eclipse of the Sun

1899 December 02-03



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$\Delta T = -2^s 8$
Globe centred on E 159°7' and S 63°0'

Circumstances	Time (UT)		Longitude		Latitude	
	h	m	°	'	°	'
⊕ Eclipse begins; first contact with Earth	22	39.8	E 93	37.3	S 30	36.4
Beginning of northern limit of penumbra	23	06.1	E 93	40.9	S 17	15.7
Beginning of northern limit of umbra	0	10.4	E 49	36.3	S 54	56.0
Beginning of centre line; central eclipse begins	0	11.9	E 48	13.4	S 55	34.8
Beginning of southern limit of umbra	0	13.5	E 46	45.7	S 56	14.5
Central eclipse at local apparent noon	1	01.8	E 161	59.0	S 87	35.8
End of southern limit of umbra	1	41.5	W 73	54.0	S 59	45.3
End of centre line; central eclipse ends	1	43.0	W 75	32.8	S 59	10.3
End of northern limit of umbra	1	44.5	W 77	05.8	S 58	35.8
End of northern limit of penumbra	2	48.8	W 125	22.4	S 21	54.4
⊙ Eclipse ends; last contact with Earth	3	15.0	W 124	44.9	S 35	06.9