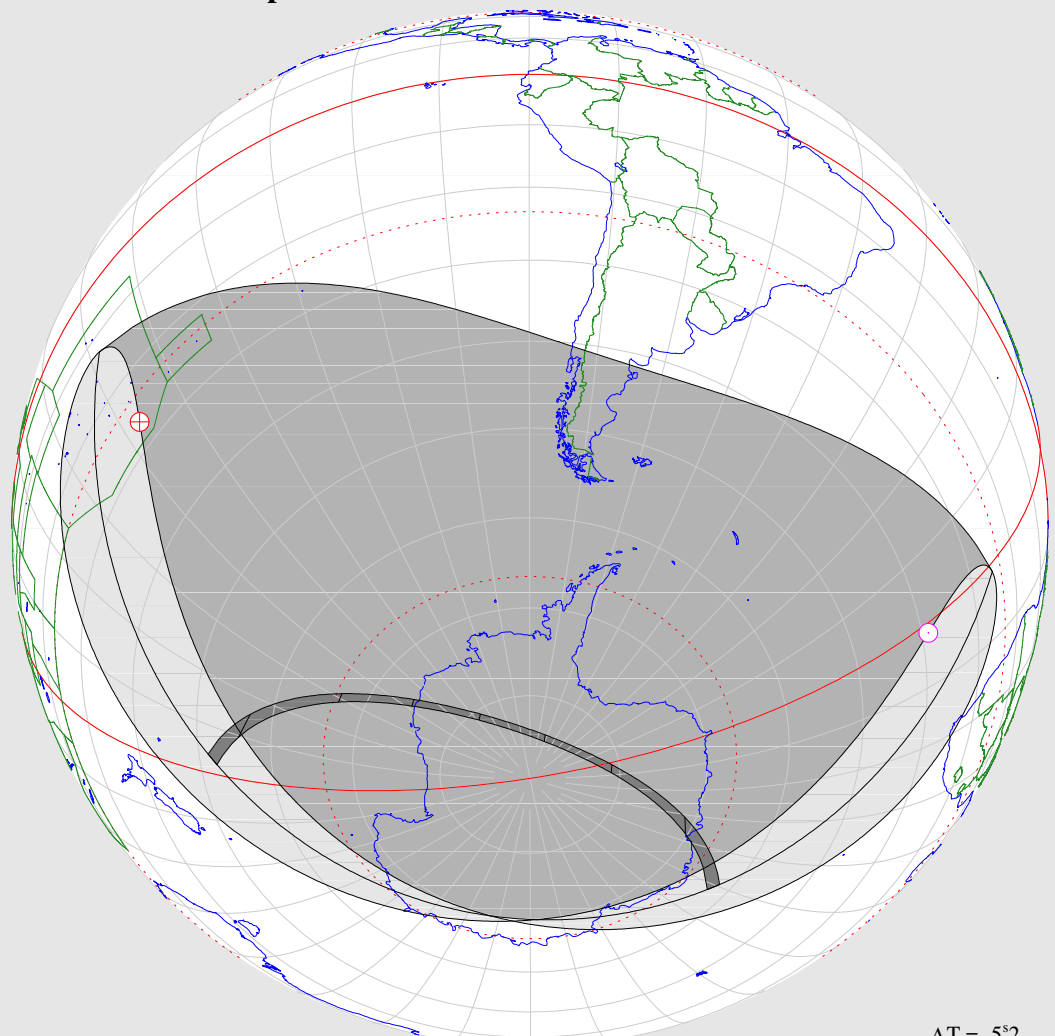


III. - Annular Eclipse of the Sun

1881 November 21



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$\Delta T = -5^s.2$
Globe centred on W 79°9' and S 61°2'

Circumstances	Time (UT)		Longitude		Latitude	
	h	m	°	'	°	'
⊕ Eclipse begins; first contact with Earth	14	13.2	W137	18.1	S 26	38.8
Beginning of northern limit of penumbra	14	40.4	W138	19.0	S 12	47.6
Beginning of northern limit of umbra	15	41.6	W176	02.7	S 51	21.8
Beginning of centre line; central eclipse begins	15	42.8	W176	54.2	S 51	54.1
Beginning of southern limit of umbra	15	43.9	W177	47.8	S 52	27.0
Central eclipse at local apparent noon	16	42.7	W 74	08.2	S 84	34.3
End of southern limit of umbra	17	18.4	E 51	54.4	S 62	39.7
End of centre line; central eclipse ends	17	19.6	E 50	36.3	S 62	14.1
End of northern limit of umbra	17	20.6	E 49	21.8	S 61	48.7
End of northern limit of penumbra	18	21.9	E 1	04.5	S 25	26.1
⊙ Eclipse ends; last contact with Earth	18	49.1	E 1	29.0	S 38	59.3