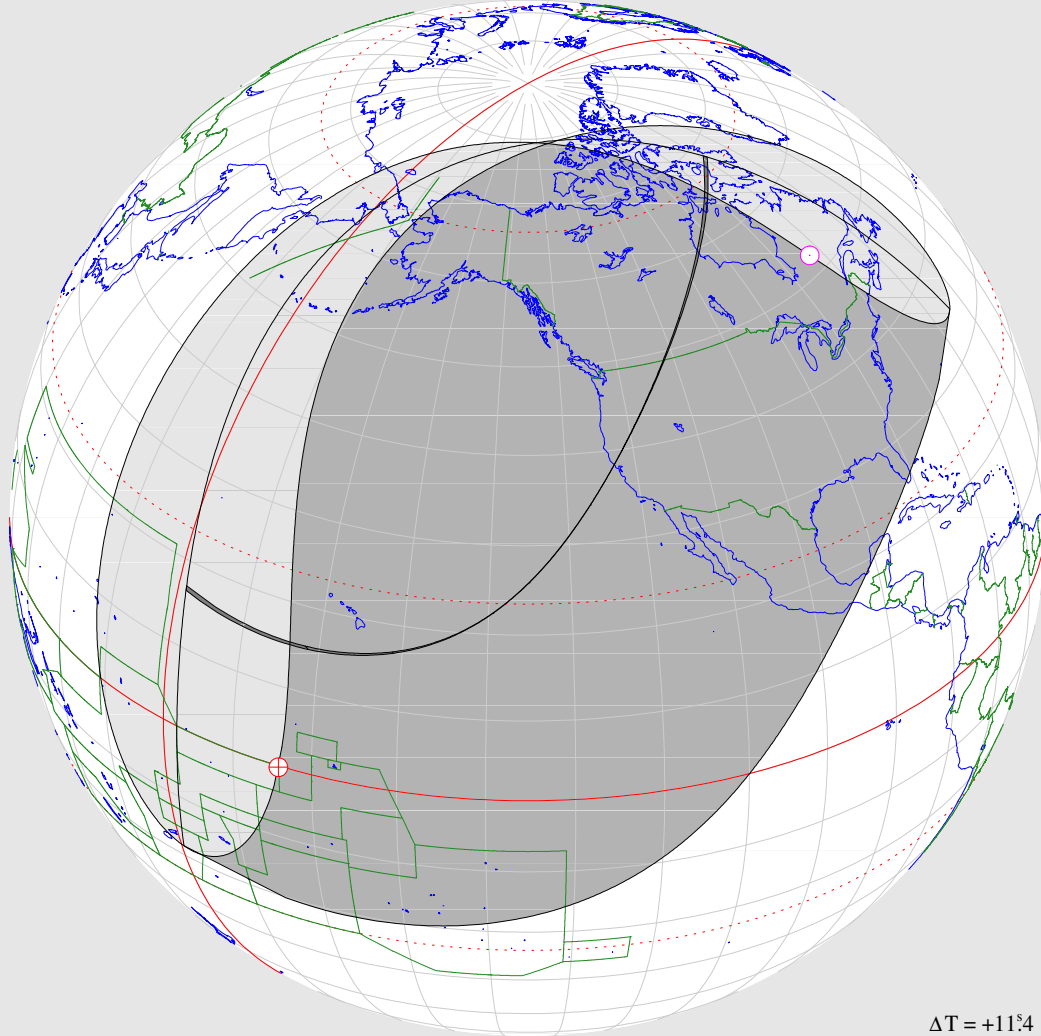


II. - Annular Eclipse of the Sun

1822 February 21



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$\Delta T = +11^s.4$
Globe centred on W 135°3 and N 33°1

Circumstances	Time (UT)		Longitude		Latitude	
	h	m	°	'	°	'
⊕ Eclipse begins; first contact with Earth	17	10.1	W164	04.7	S 0	11.9
Beginning of southern limit of penumbra	17	58.3	W179	36.1	S 18	13.8
Beginning of southern limit of umbra	18	21.9	W178	48.0	N 16	35.8
Beginning of centre line; central eclipse begins	18	22.2	W178	49.7	N 16	51.7
Beginning of northern limit of umbra	18	22.5	W178	51.4	N 17	07.8
Central eclipse at local apparent noon	20	18.1	W121	03.3	N 40	27.8
End of northern limit of umbra	20	58.0	W 68	53.9	N 68	20.5
End of centre line; central eclipse ends	20	58.3	W 68	38.9	N 68	07.7
End of southern limit of umbra	20	58.6	W 68	24.2	N 67	54.8
End of southern limit of penumbra	21	22.5	W 54	28.8	N 34	29.1
⊙ Eclipse ends; last contact with Earth	22	10.5	W 72	56.3	N 52	09.0