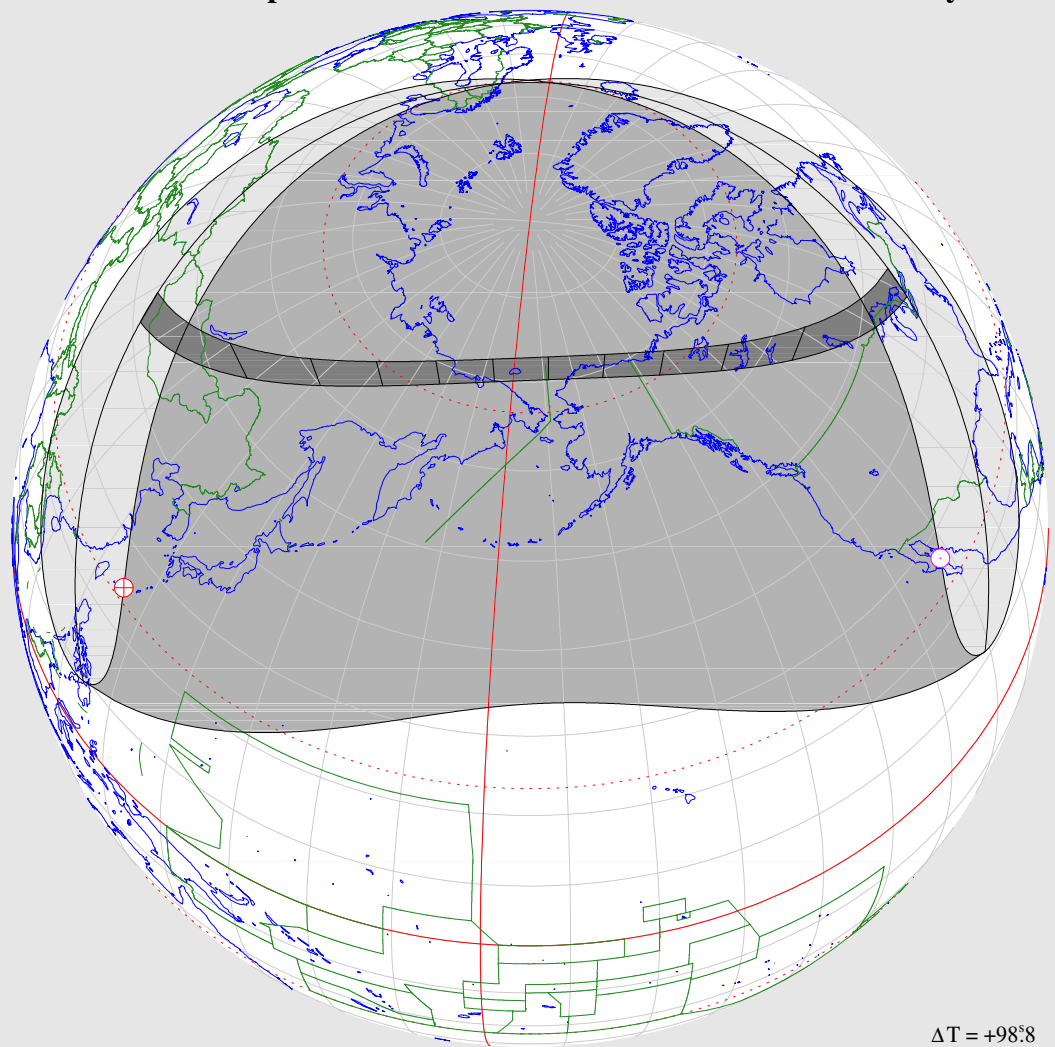


### III. - Annular Eclipse of the Sun

2057 July 01-02



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$\Delta T = +98^s 8$   
Globe centred on W 174<sup>o</sup>5 and N 53<sup>o</sup>6

Circumstances	Time (UT)		Longitude		Latitude	
	h	m	o	'	o	'
⊕ Eclipse begins; first contact with Earth	20	56.0	E 125	35.3	N 25	04.6
Beginning of southern limit of penumbra	21	29.8	E 124	40.9	N 9	06.1
Beginning of southern limit of umbra	22	17.4	E 94	49.3	N 41	15.3
Beginning of centre line; central eclipse begins	22	20.0	E 93	04.3	N 42	34.4
Beginning of northern limit of umbra	22	22.8	E 91	12.5	N 43	55.4
Central eclipse at local apparent noon	23	40.3	W 174	02.3	N 71	31.3
End of northern limit of umbra	0	54.4	W 76	40.8	N 45	47.9
End of centre line; central eclipse ends	0	57.1	W 78	36.7	N 44	28.4
End of southern limit of umbra	0	59.7	W 80	25.3	N 43	10.6
End of southern limit of penumbra	1	47.3	W 110	58.5	N 11	10.9
⊙ Eclipse ends; last contact with Earth	2	21.2	W 111	42.2	N 27	06.8