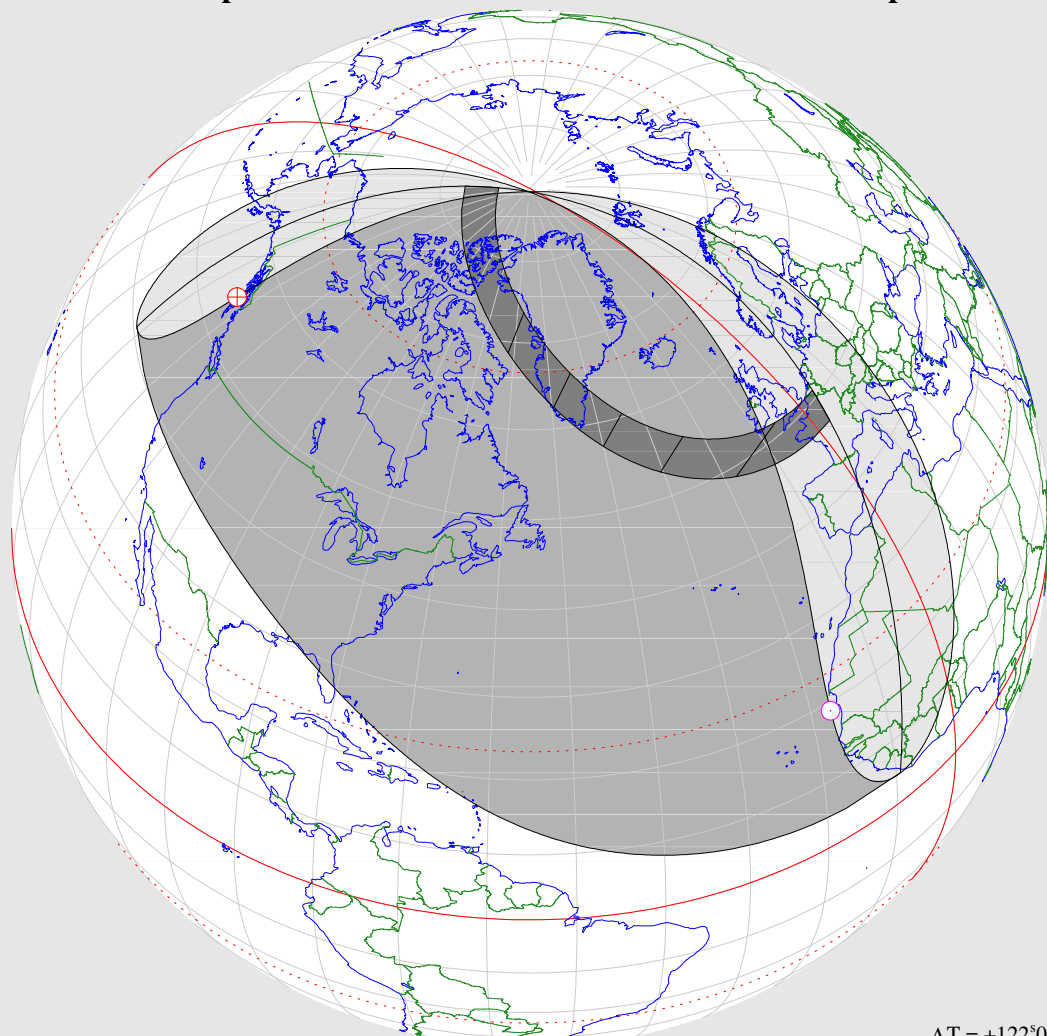


# IV. - Total Eclipse of the Sun

2090 September 23



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$\Delta T = +122^{\circ}0$   
Globe centred on W  $55^{\circ}2$  and N  $49^{\circ}0$

Circumstances	Time (UT)	Longitude	Latitude
	h m	<sup>o</sup> /	<sup>o</sup> /
⊕ Eclipse begins; first contact with Earth	14 48.4	W133 25.5	N54 44.9
Beginning of southern limit of penumbra	15 19.8	W141 31.1	N40 32.4
Beginning of southern limit of umbra	16 11.1	W151 06.1	N82 47.8
Beginning of centre line; central eclipse begins	16 14.1	W150 36.5	N84 35.8
Beginning of northern limit of umbra	16 17.3	W148 39.4	N86 32.0
Central eclipse at local apparent noon	16 24.2	W 68 01.3	N74 24.9
End of northern limit of umbra	17 32.2	E 4 24.0	N50 49.5
End of centre line; central eclipse ends	17 35.4	E 3 37.7	N48 52.5
End of southern limit of umbra	17 38.4	E 2 55.4	N47 04.1
End of southern limit of penumbra	18 29.5	W 9 23.3	N 4 38.5
⊙ Eclipse ends; last contact with Earth	19 01.0	W 17 23.9	N18 55.7