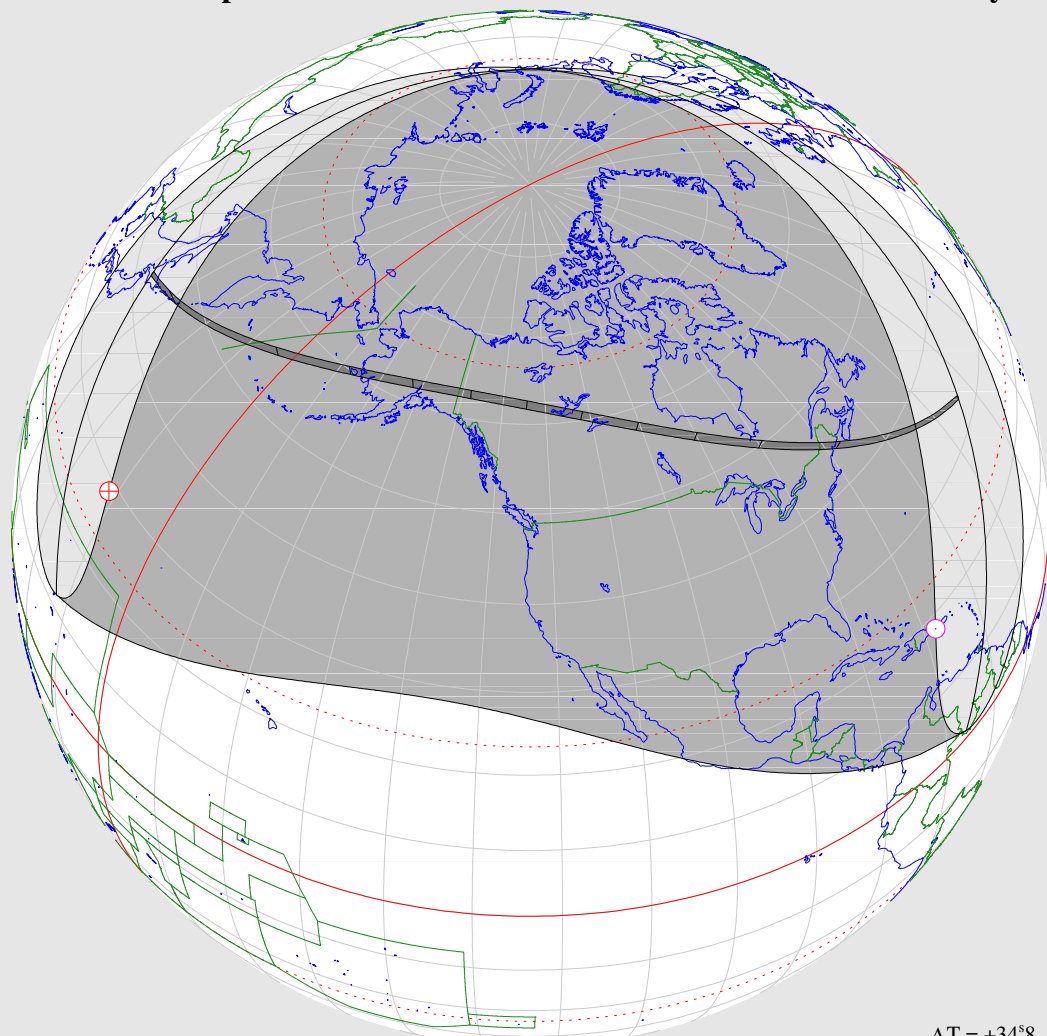


# IV. - Total Eclipse of the Sun

1963 July 20



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$\Delta T = +34^s.8$   
Globe centred on W 123°6 and N 48°4

Circumstances	Time (UT)	Longitude	Latitude
	<sup>h</sup> <sup>m</sup>	<sup>o</sup> /	<sup>o</sup> /
⊕ Eclipse begins; first contact with Earth	18 04.2	E 168 32.8	N 28 45.1
Beginning of southern limit of penumbra	18 38.3	E 167 27.5	N 11 47.2
Beginning of southern limit of umbra	19 13.7	E 142 34.4	N 42 54.6
Beginning of centre line; central eclipse begins	19 14.1	E 142 20.8	N 43 06.3
Beginning of northern limit of umbra	19 14.4	E 142 07.2	N 43 18.0
Central eclipse at local apparent noon	20 28.6	W 125 35.2	N 62 17.4
End of northern limit of umbra	21 57.0	W 43 23.4	N 33 12.4
End of centre line; central eclipse ends	21 57.3	W 43 33.7	N 33 01.6
End of southern limit of umbra	21 57.6	W 43 43.8	N 32 50.8
End of southern limit of penumbra	22 33.0	W 66 14.1	N 1 11.0
⊙ Eclipse ends; last contact with Earth	23 07.2	W 68 03.9	N 18 19.0