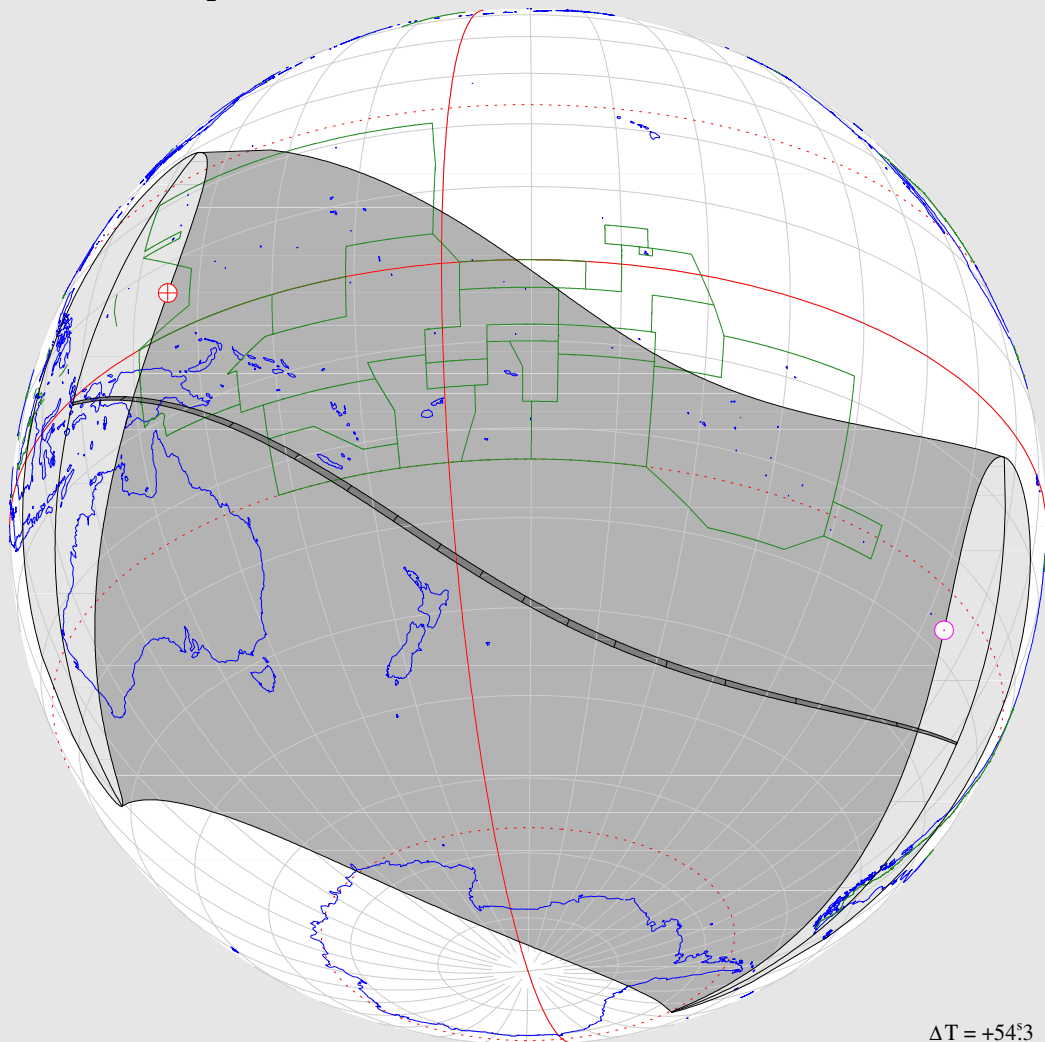


# V. - Total Eclipse of the Sun

## 1984 November 22-23



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ΔT = +54:3  
Globe centred on W 170°4 and S 31°0

Circumstances	Time (UT)	Longitude	Latitude
	<sup>h</sup> <sup>m</sup>	<sup>o</sup> /	<sup>o</sup> /
⊕ Eclipse begins; first contact with Earth	20 13.4	E 145 18.7	N 5 37.0
Beginning of northern limit of penumbra	21 01.0	E 142 59.2	N 28 38.1
Beginning of northern limit of umbra	21 12.8	E 128 13.3	S 0 26.9
Beginning of centre line; central eclipse begins	21 12.9	E 128 08.7	S 0 34.5
Beginning of southern limit of umbra	21 13.0	E 128 04.2	S 0 42.2
Beginning of southern limit of penumbra	22 03.0	E 98 43.2	S 38 27.1
Central eclipse at local apparent noon	23 03.9	W 169 23.3	S 39 43.8
End of southern limit of penumbra	23 43.3	W 33 10.9	S 65 55.9
End of southern limit of umbra	0 33.6	W 87 34.8	S 33 34.4
End of centre line; central eclipse ends	0 33.7	W 87 39.8	S 33 28.0
End of northern limit of umbra	0 33.8	W 87 44.7	S 33 21.7
End of northern limit of penumbra	0 45.9	W 103 15.2	S 4 22.9
⊙ Eclipse ends; last contact with Earth	1 33.3	W 105 38.9	S 27 25.6