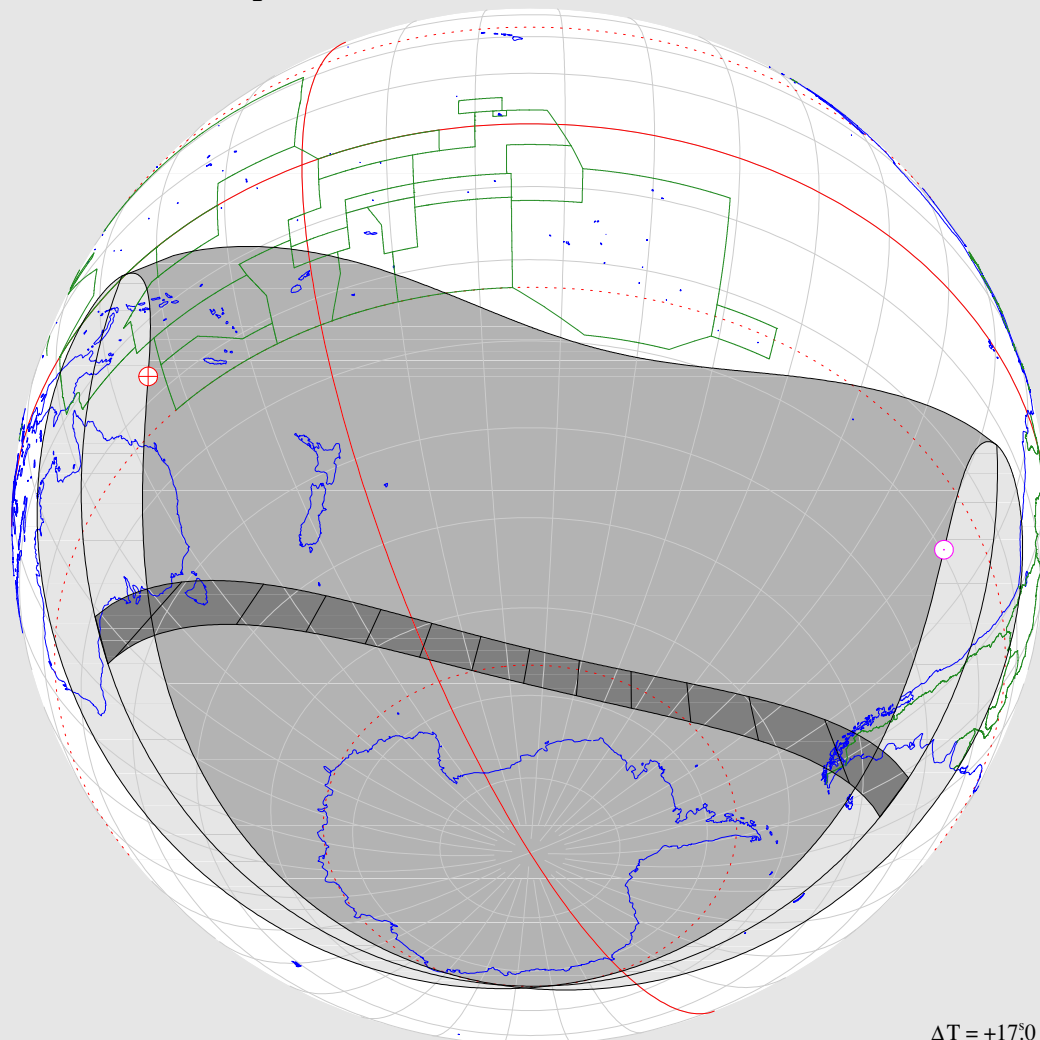


V. - Annular Eclipse of the Sun

1778 December 18-19



©HM Nautical Almanac Office

$\Delta T = +17^s.0$
Globe centred on W 153°9 and S 51°0

Circumstances	Time (UT)	Longitude	Latitude
	^h ^m	^o /	^o /
⊕ Eclipse begins; first contact with Earth	19 04.0	E 155 43.5	S 17 00.6
Beginning of northern limit of penumbra	19 41.3	E 154 10.5	N 0 23.3
Beginning of northern limit of umbra	20 22.6	E 128 49.5	S 30 38.2
Beginning of centre line; central eclipse begins	20 26.1	E 126 43.2	S 32 35.8
Beginning of southern limit of umbra	20 29.9	E 124 27.5	S 34 37.2
Central eclipse at local apparent noon	22 03.5	W 151 31.2	S 66 52.9
End of southern limit of umbra	23 17.2	W 52 44.4	S 46 30.5
End of centre line; central eclipse ends	23 20.9	W 55 33.0	S 44 36.8
End of northern limit of umbra	23 24.5	W 58 07.5	S 42 45.8
End of northern limit of penumbra	0 05.8	W 86 35.5	S 12 27.8
⊙ Eclipse ends; last contact with Earth	0 43.1	W 87 08.6	S 29 37.6