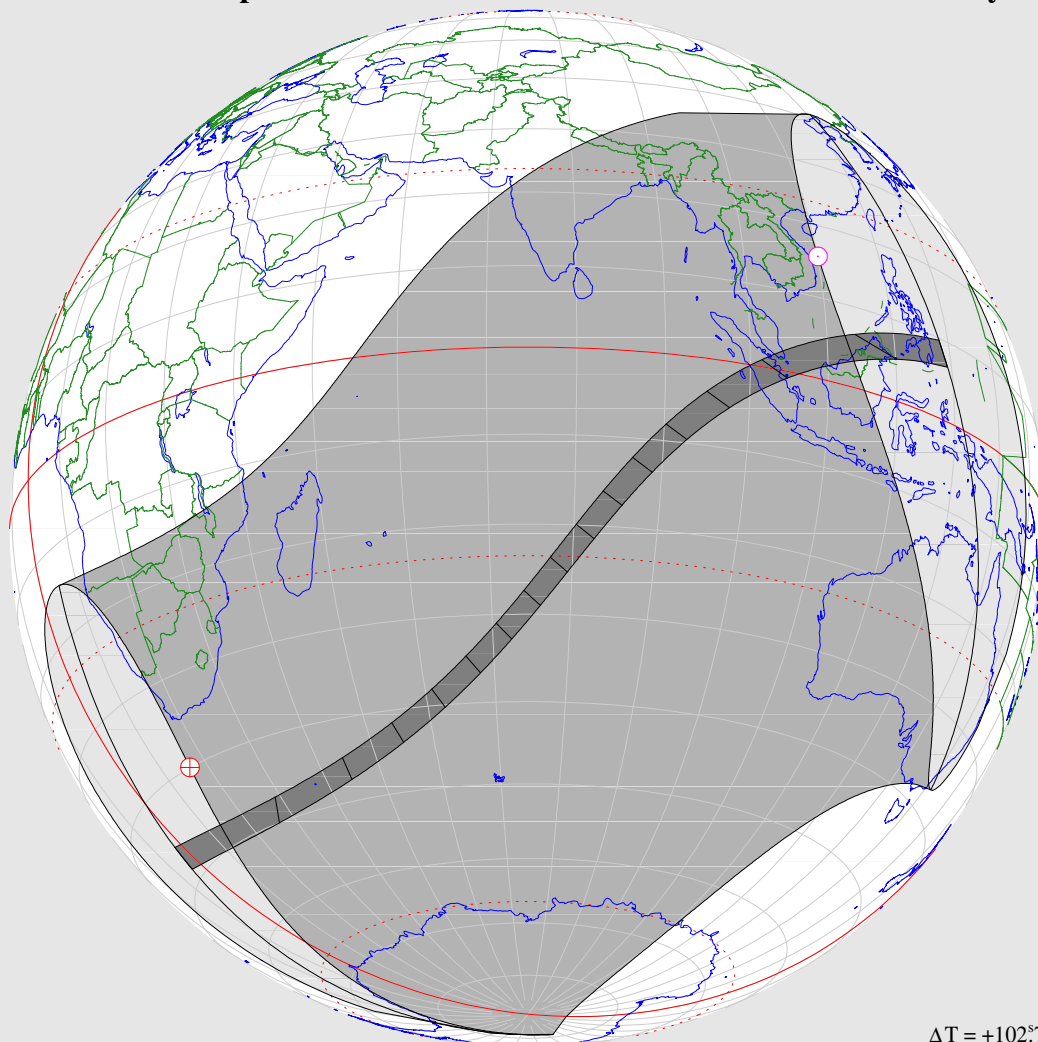


I. - Annular Eclipse of the Sun

2063 February 28



©HM Nautical Almanac Office

$\Delta T = +102^s.7$
Globe centred on E 74°6' and S 20°5'

Circumstances	Time (UT)	Longitude	Latitude
	h m	° /	° /
⊕ Eclipse begins; first contact with Earth	4 40.4	E 16 18.4	S 39 57.6
Beginning of northern limit of penumbra	5 41.9	E 5 36.6	S 14 18.4
Beginning of northern limit of umbra	5 49.4	W 2 26.1	S 45 40.0
Beginning of centre line; central eclipse begins	5 50.6	W 3 10.9	S 47 09.2
Beginning of southern limit of umbra	5 51.9	W 3 58.7	S 48 39.2
Beginning of southern limit of penumbra	6 54.9	W 124 09.7	S 81 22.0
Central eclipse at local apparent noon	7 20.7	E 72 56.0	S 30 27.5
End of southern limit of penumbra	8 29.4	E 151 48.5	S 37 09.4
End of southern limit of umbra	9 31.9	E 129 12.4	N 6 44.1
End of centre line; central eclipse ends	9 33.1	E 128 40.5	N 8 14.7
End of northern limit of umbra	9 34.3	E 128 09.8	N 9 44.5
End of northern limit of penumbra	9 41.4	E 120 48.4	N 41 09.7
⊙ Eclipse ends; last contact with Earth	10 43.3	E 110 05.7	N 15 30.8