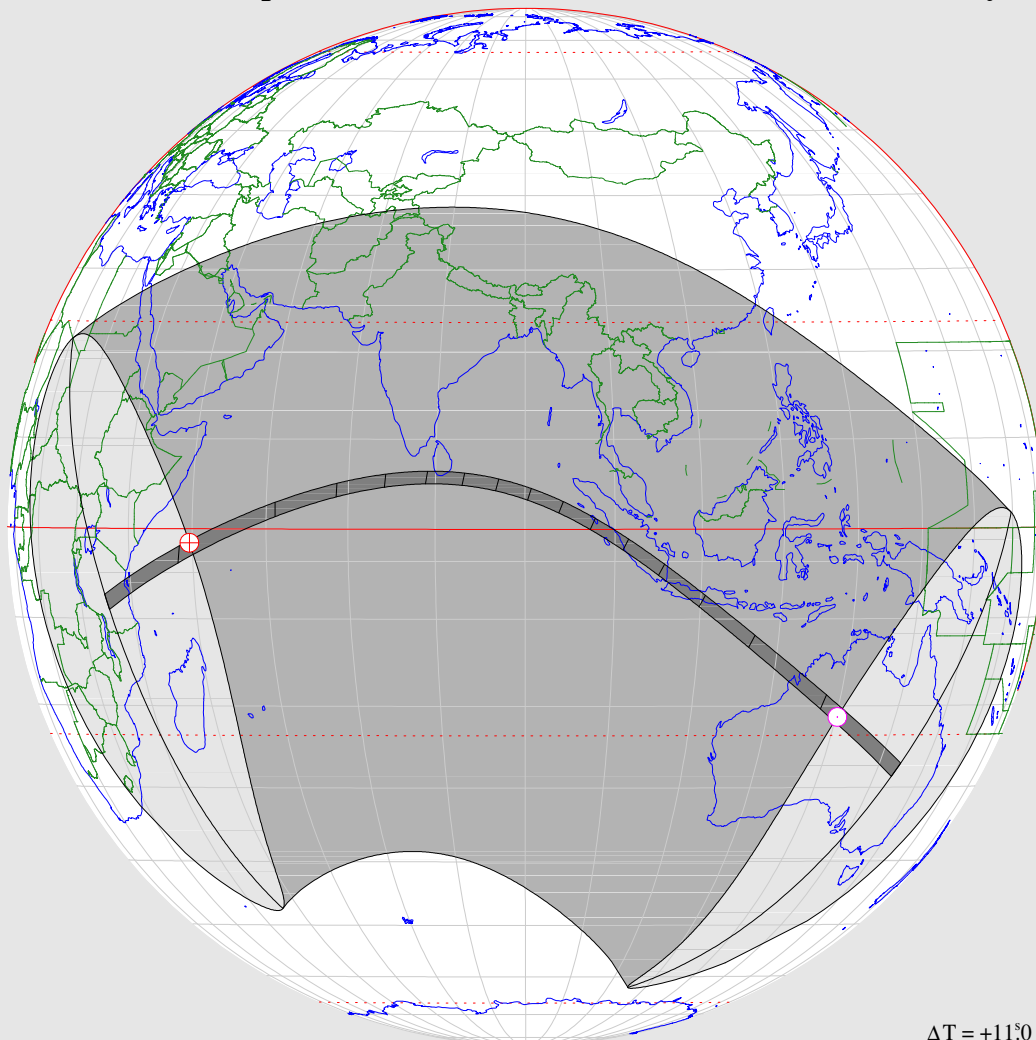


IV. - Annular Eclipse of the Sun

1731 July 04



©HM Nautical Almanac Office

$\Delta T = +11^m 30^s$
Globe centred on E 90°1 and N 0°3

Circumstances	Time (UT)		Longitude		Latitude	
	h	m	°	'	°	'
⊕ Eclipse begins; first contact with Earth	2	47.9	E 49	35.4	S 1	32.9
Beginning of northern limit of umbra	3	55.8	E 35	04.9	S 7	19.5
Beginning of centre line; central eclipse begins	3	56.0	E 35	22.8	S 8	09.8
Beginning of southern limit of umbra	3	56.3	E 35	40.5	S 9	00.4
Beginning of northern limit of penumbra	4	04.1	E 20	16.5	N 21	28.5
Beginning of southern limit of penumbra	4	46.8	E 46	27.4	S 47	12.9
Central eclipse at local apparent noon	5	53.6	E 92	30.0	N 3	06.1
End of southern limit of penumbra	6	45.3	E 115	14.3	S 62	27.5
End of northern limit of penumbra	7	28.4	E 159	32.4	N 1	43.5
End of southern limit of umbra	7	36.0	E 143	31.3	S 28	38.4
End of centre line; central eclipse ends	7	36.3	E 143	55.0	S 27	48.3
End of northern limit of umbra	7	36.6	E 144	18.5	S 26	58.4
⊙ Eclipse ends; last contact with Earth	8	44.6	E 130	15.1	S 21	18.8