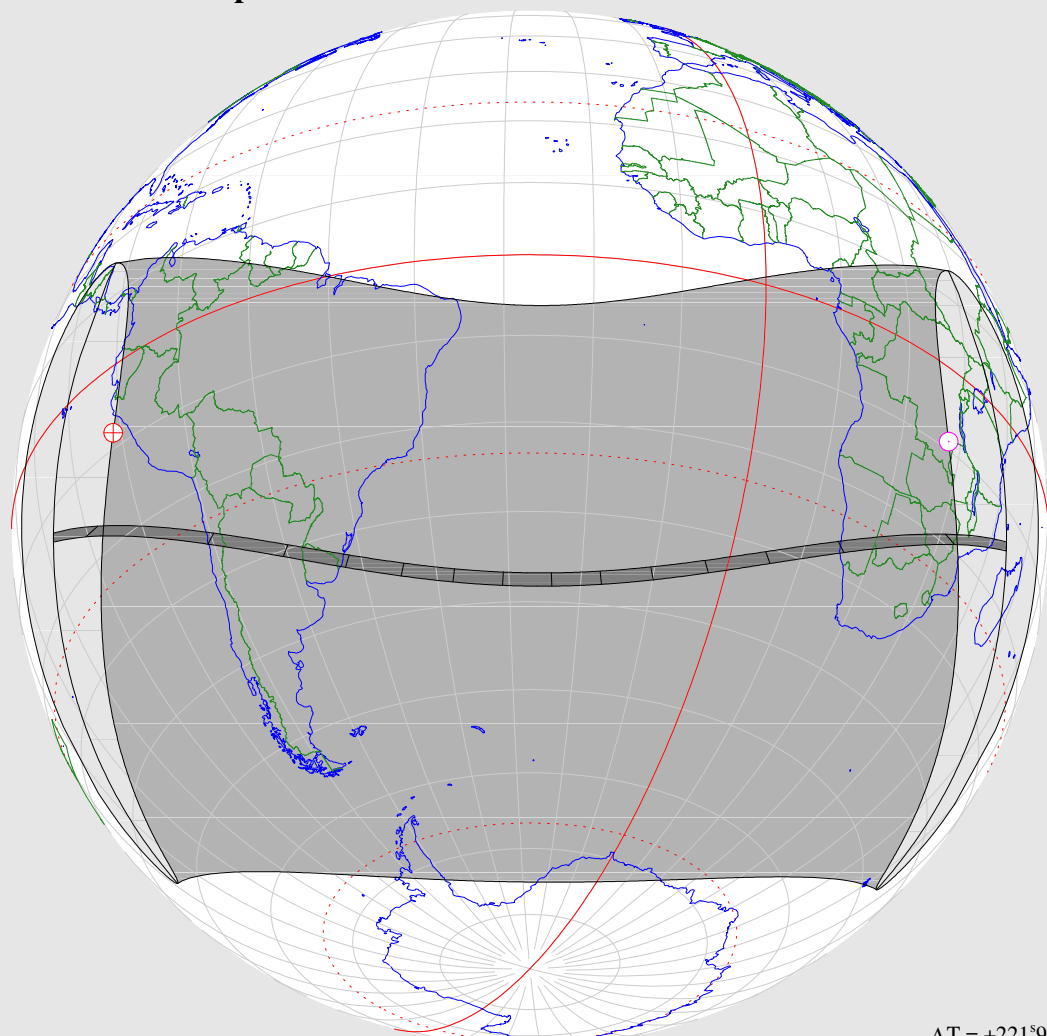


# VII. - Total Eclipse of the Sun

## 1535 December 24



©HM Nautical Almanac Office

$\Delta T = +221^s.9$   
Globe centred on W 27°1' and S 31°9'

Circumstances	Time (UT)	Longitude	Latitude
	<sup>h</sup> <sup>m</sup>	<sup>o</sup> /	<sup>o</sup> /
⊕ Eclipse begins; first contact with Earth	11 17.0	W 81 25.1	S 8 08.1
Beginning of northern limit of penumbra	12 04.7	W 83 06.8	N15 33.7
Beginning of northern limit of umbra	12 13.2	W 97 21.6	S 12 25.5
Beginning of centre line; central eclipse begins	12 13.5	W 97 38.0	S 12 51.0
Beginning of southern limit of umbra	12 13.9	W 97 54.6	S 13 16.5
Beginning of southern limit of penumbra	12 54.9	W128 31.3	S 46 05.8
Central eclipse at local apparent noon	13 53.4	W 27 03.4	S 37 31.6
End of southern limit of penumbra	14 51.6	E 75 14.6	S 46 50.6
End of southern limit of umbra	15 32.6	E 44 16.1	S 14 06.4
End of centre line; central eclipse ends	15 32.9	E 43 59.4	S 13 40.8
End of northern limit of umbra	15 33.2	E 43 42.9	S 13 15.3
End of northern limit of penumbra	15 41.7	E 29 29.0	N14 44.1
⊙ Eclipse ends; last contact with Earth	16 29.5	E 27 45.9	S 8 58.1