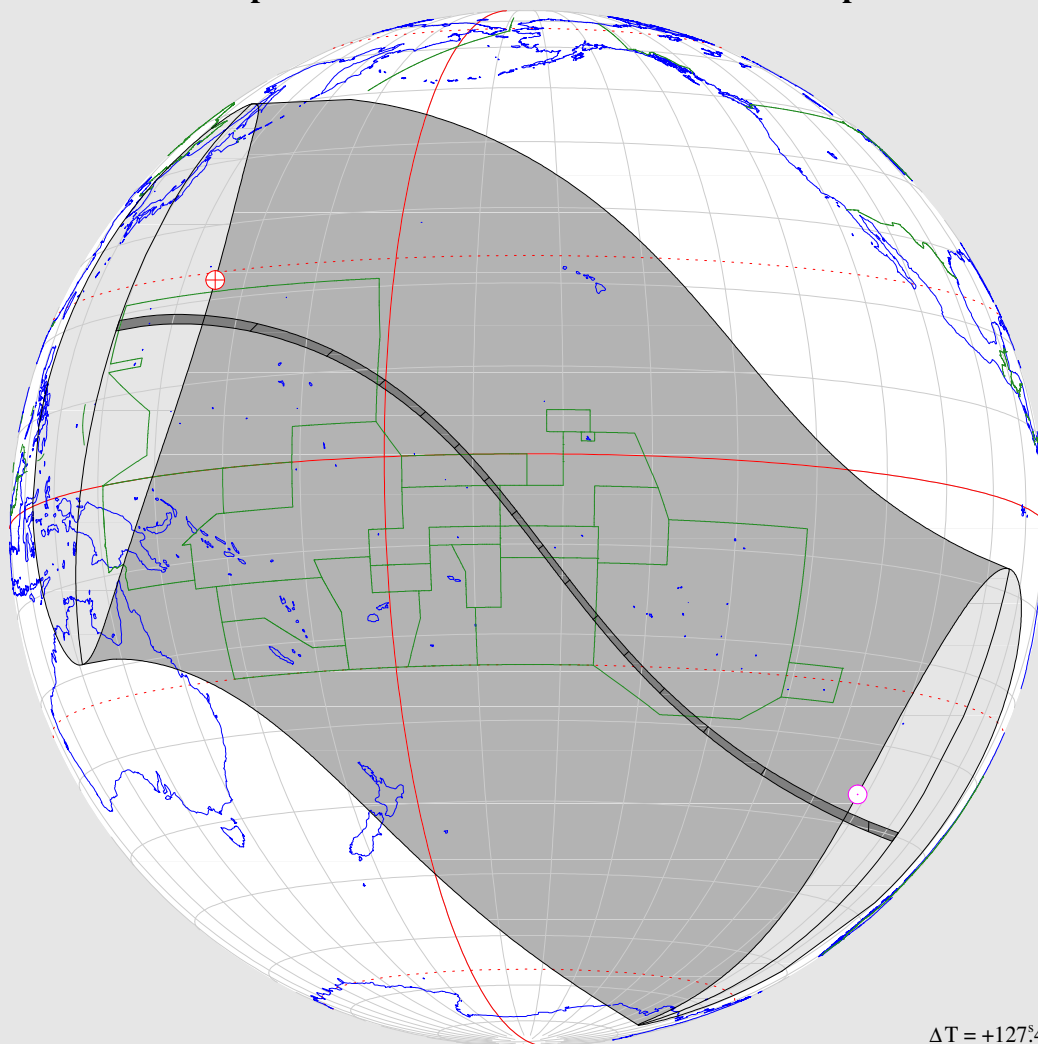


V. - Annular Eclipse of the Sun

1615 September 22-23



$\Delta T = +127^s.4$

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Globe centred on W 163°9 and S 8°3

Circumstances	Time (UT)		Longitude		Latitude	
	h	m	°	'	°	'
⊕ Eclipse begins; first contact with Earth	19	30.8	E 155	19.8	N 22	30.2
Beginning of northern limit of umbra	20	34.1	E 139	30.7	N 19	15.6
Beginning of centre line; central eclipse begins	20	34.3	E 139	27.7	N 18	38.6
Beginning of southern limit of umbra	20	34.6	E 139	24.5	N 18	01.5
Beginning of northern limit of penumbra	20	40.7	E 137	37.8	N 51	15.7
Beginning of southern limit of penumbra	21	09.4	E 130	52.5	S 18	50.6
Central eclipse at local apparent noon	22	36.9	W 161	05.4	S 12	05.4
End of southern limit of penumbra	23	40.4	W 87	55.6	S 77	20.9
End of northern limit of penumbra	0	10.0	W 94	24.0	S 7	25.7
End of southern limit of umbra	0	15.7	W 95	58.8	S 40	39.0
End of centre line; central eclipse ends	0	15.9	W 96	01.9	S 40	03.4
End of northern limit of umbra	0	16.1	W 96	04.8	S 39	28.0
⊙ Eclipse ends; last contact with Earth	1	19.4	W 111	52.8	S 36	12.3