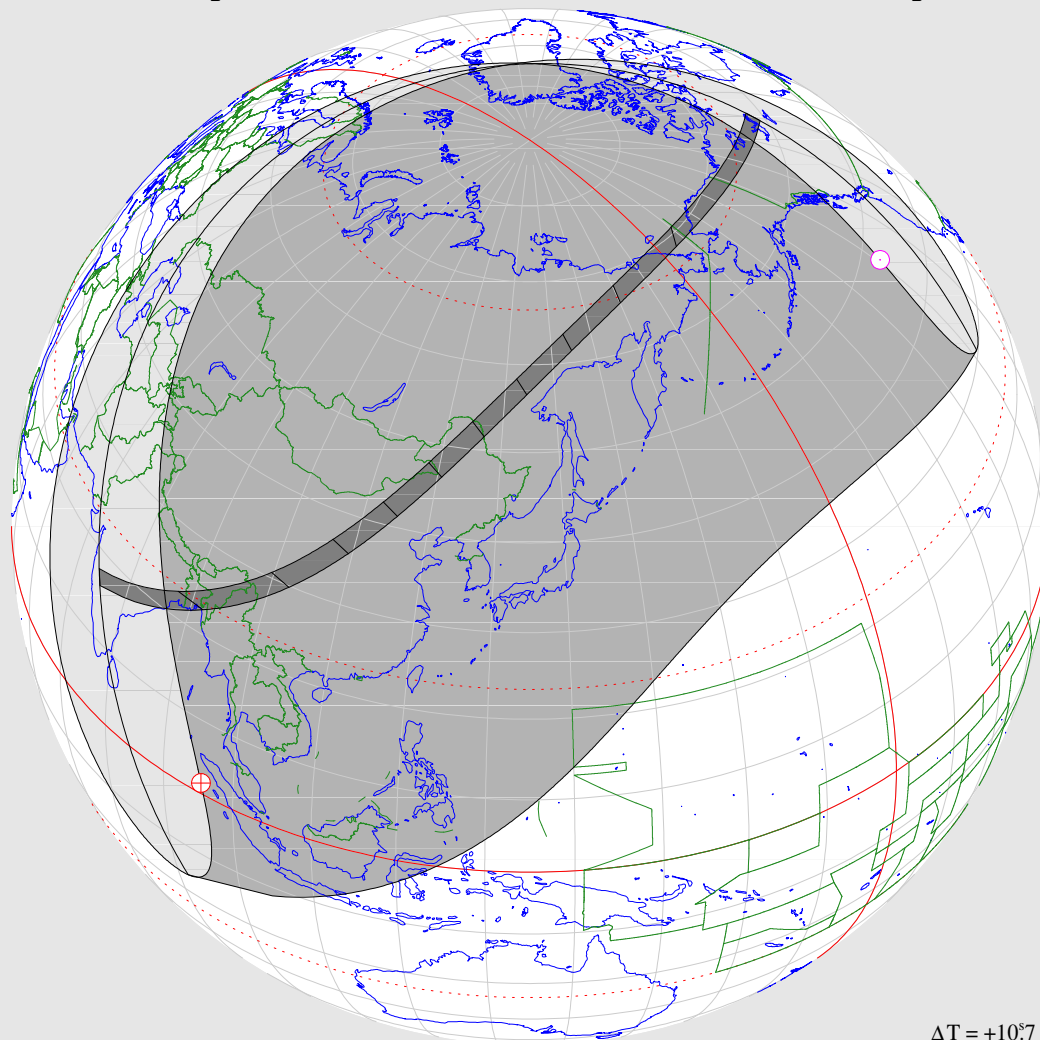


II. - Total Eclipse of the Sun

1688 April 29-30



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$\Delta T = +10^m 7^s$
Globe centred on E 135°0 and N 41°8

Circumstances	Time (UT)		Longitude		Latitude	
	h	m	°	'	°	'
⊕ Eclipse begins; first contact with Earth	23	32.8	E 95	35.2	N 1	33.7
Beginning of southern limit of penumbra	0	07.5	E 91	44.3	S 15	58.1
Beginning of southern limit of umbra	0	38.2	E 75	12.2	N 16	14.5
Beginning of centre line; central eclipse begins	0	39.2	E 74	42.2	N 17	02.0
Beginning of northern limit of umbra	0	40.3	E 74	11.5	N 17	50.0
Central eclipse at local apparent noon	2	28.0	E 142	13.2	N 61	43.3
End of northern limit of umbra	3	14.1	W 108	37.0	N 62	16.7
End of centre line; central eclipse ends	3	15.2	W 109	50.5	N 61	36.0
End of southern limit of umbra	3	16.2	W 111	00.4	N 60	55.4
End of southern limit of penumbra	3	47.2	W 138	34.1	N 30	19.0
⊙ Eclipse ends; last contact with Earth	4	21.7	W 139	16.1	N 47	21.8