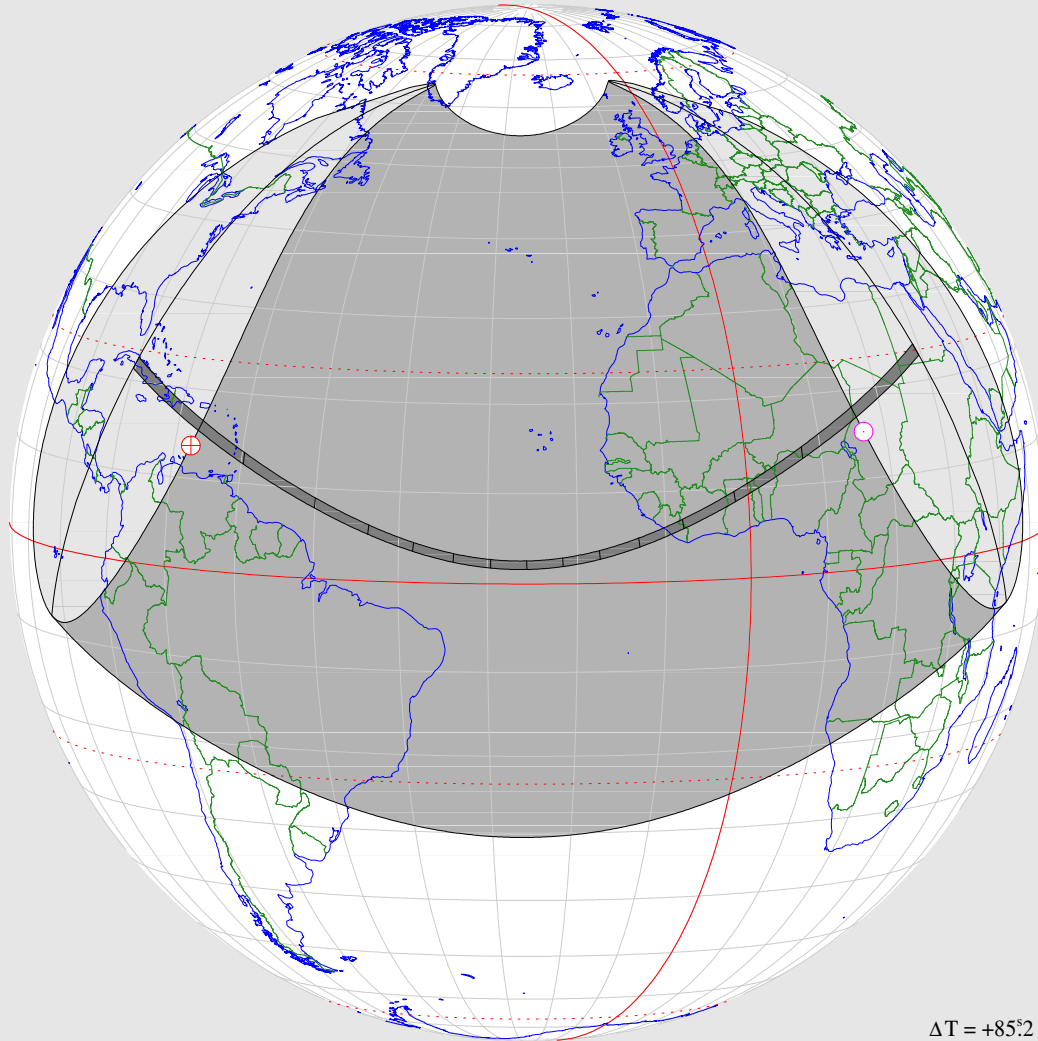


I. - Annular Eclipse of the Sun

2038 January 05



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ΔT = +85:2
Globe centred on W 25°5' and N 6°8'

Circumstances	Time (UT)		Longitude		Latitude	
	h	m	°	'	°	'
⊕ Eclipse begins; first contact with Earth	10	58.6	W 67	30.6	N 13	38.6
Beginning of southern limit of umbra	12	04.2	W 80	21.0	N 21	21.9
Beginning of centre line; central eclipse begins	12	04.6	W 80	07.1	N 22	00.9
Beginning of northern limit of umbra	12	04.9	W 79	53.1	N 22	40.1
Beginning of southern limit of penumbra	12	06.3	W 93	29.8	S 7	49.3
Beginning of northern limit of penumbra	13	19.0	W 49	37.7	N 64	05.3
Central eclipse at local apparent noon	13	46.4	W 25	15.0	N 2	05.8
End of northern limit of penumbra	14	12.5	W 4	03.6	N 64	52.2
End of southern limit of penumbra	15	25.2	E 42	40.6	S 6	16.8
End of northern limit of umbra	15	26.6	E 28	57.1	N 24	14.1
End of centre line; central eclipse ends	15	26.9	E 29	12.0	N 23	33.6
End of southern limit of umbra	15	27.3	E 29	26.8	N 22	53.3
⊙ Eclipse ends; last contact with Earth	16	33.0	E 16	38.5	N 15	11.9