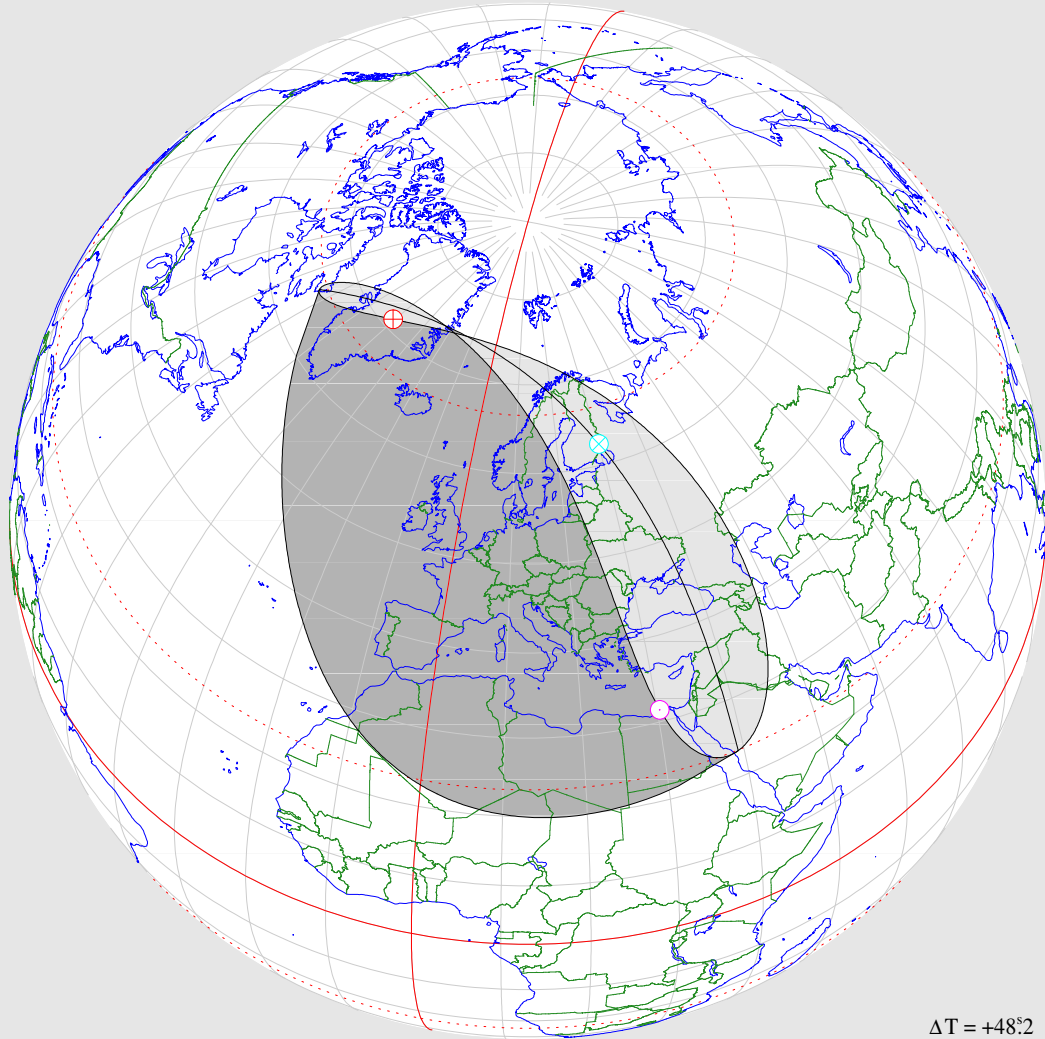


# IV. - Partial Eclipse of the Sun

1649 November 04



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$\Delta T = +48^s.2$   
Globe centred on E 13°0 and N 54°8

Circumstances	Time (UT)	Longitude	Latitude
	h m	° /	° /
⊕ Eclipse begins; first contact with Earth	12 05.8	W 40 32.8	N71 08.2
Beginning of southern limit of penumbra	12 29.9	W 63 30.4	N65 33.6
⊗ Greatest eclipse (magnitude = 0.4981)	13 34.3	E 30 07.9	N62 20.1
End of southern limit of penumbra	14 39.1	E 39 14.9	N23 24.5
○ Eclipse ends; last contact with Earth	15 03.1	E 30 20.0	N31 26.1