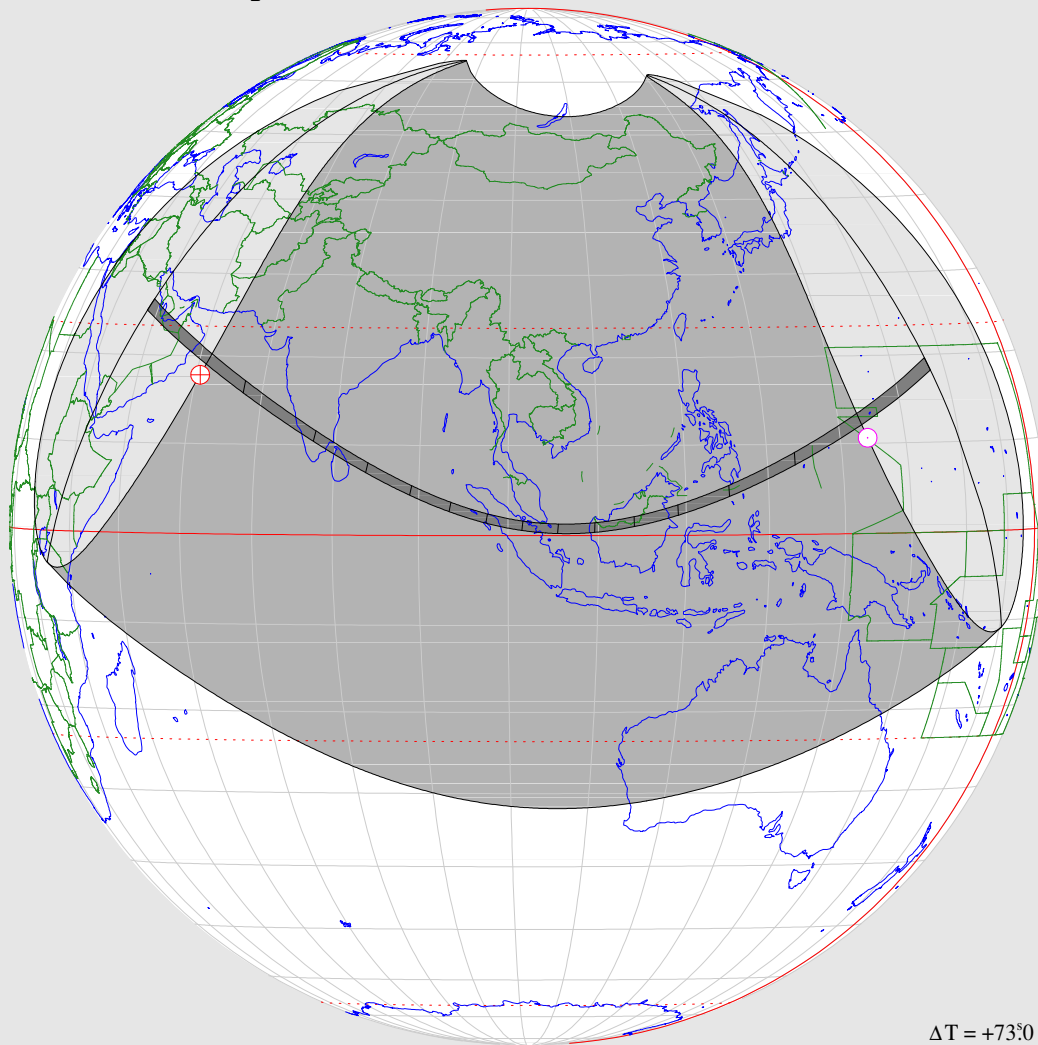


# V. - Annular Eclipse of the Sun

2019 December 26



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$\Delta T = +73^s$   
Globe centred on E 102°2 and N 1°0

Circumstances	Time (UT)	Longitude	Latitude
	<sup>h</sup> <sup>m</sup>	<sup>o</sup> /	<sup>o</sup> /
⊕ Eclipse begins; first contact with Earth	2 29.8	E 60 34.9	N 17 47.1
Beginning of southern limit of umbra	3 35.6	E 47 56.2	N 25 18.0
Beginning of centre line; central eclipse begins	3 36.0	E 48 13.3	N 25 58.9
Beginning of northern limit of umbra	3 36.4	E 48 30.4	N 26 40.0
Beginning of southern limit of penumbra	3 38.3	E 33 55.6	S 3 34.9
Beginning of northern limit of penumbra	4 49.2	E 85 50.6	N 65 01.1
Central eclipse at local apparent noon	5 14.5	E 101 26.5	N 1 07.0
End of northern limit of penumbra	5 46.3	E 130 53.5	N 61 27.4
End of southern limit of penumbra	6 57.0	E 170 33.3	S 10 48.2
End of northern limit of umbra	6 59.0	E 156 28.1	N 19 36.8
End of centre line; central eclipse ends	6 59.4	E 156 43.5	N 18 53.8
End of southern limit of umbra	6 59.7	E 156 58.9	N 18 11.0
⊙ Eclipse ends; last contact with Earth	8 05.7	E 144 00.9	N 10 37.1