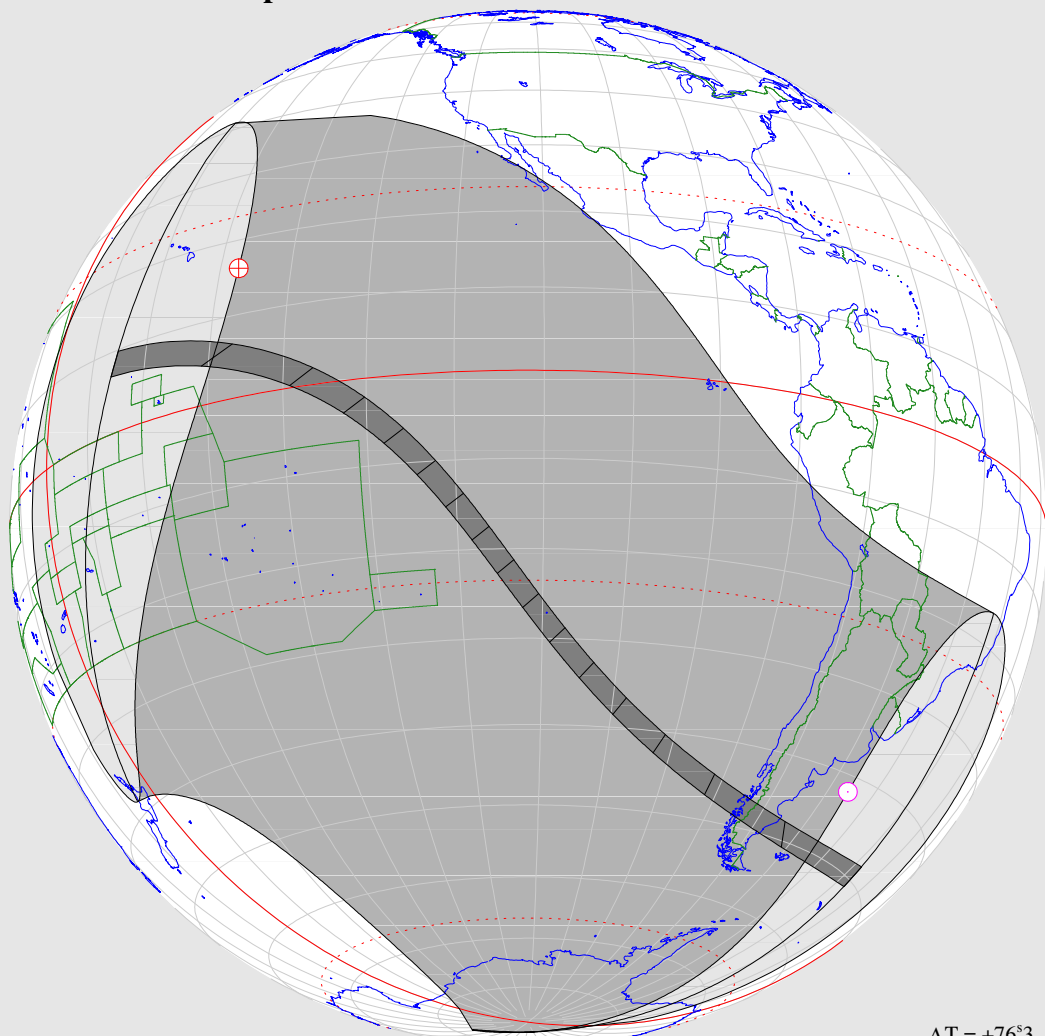


# IV. - Annular Eclipse of the Sun

2024 October 02



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$\Delta T = +76^s.3$   
Globe centred on W 111°8' and S 17°8'

Circumstances	Time (UT)		Longitude		Latitude	
	h	m	°	'	°	'
⊕ Eclipse begins; first contact with Earth	15	42.8	W147	17.6	N16	02.3
Beginning of northern limit of penumbra	16	46.5	W160	49.6	N41	37.6
Beginning of northern limit of umbra	16	52.4	W165	08.2	N 9	49.9
Beginning of centre line; central eclipse begins	16	53.5	W165	31.2	N 8	22.6
Beginning of southern limit of umbra	16	54.7	W165	55.2	N 6	54.4
Beginning of southern limit of penumbra	17	59.8	E174	09.0	S38	28.8
Central eclipse at local apparent noon	19	08.0	W109	43.2	S27	47.5
End of southern limit of penumbra	19	29.3	E123	05.3	S82	27.8
End of southern limit of umbra	20	34.9	W 36	30.1	S50	56.5
End of centre line; central eclipse ends	20	36.1	W 37	03.2	S49	28.9
End of northern limit of umbra	20	37.2	W 37	34.3	S48	02.1
End of northern limit of penumbra	20	43.6	W 42	27.5	S16	16.8
⊙ Eclipse ends; last contact with Earth	21	46.9	W 55	50.4	S41	51.4