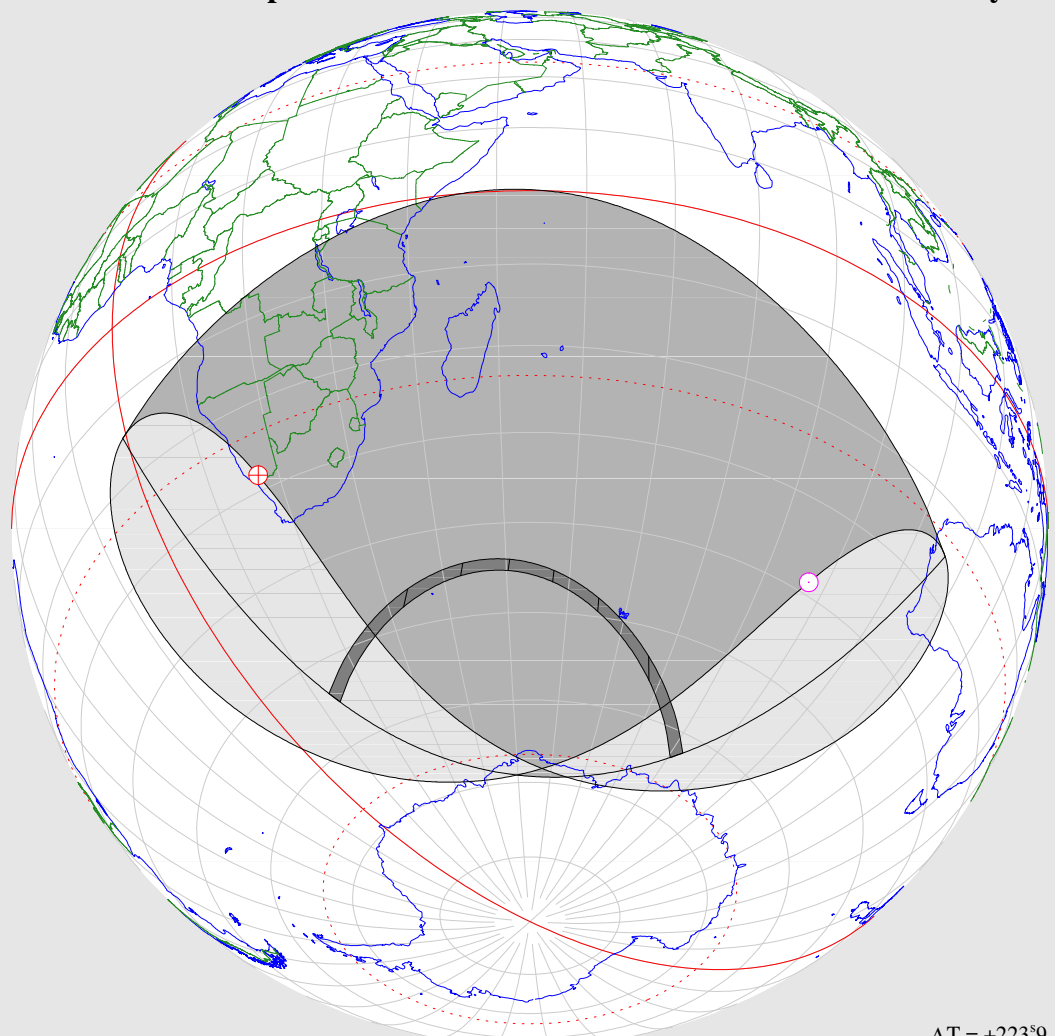


### III. - Annular Eclipse of the Sun

1534 July 11



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$\Delta T = +223^s.9$   
Globe centred on E 53°7' and S 40°7'

| Circumstances                                    | Time (UT) | Longitude  | Latitude  |
|--|-----------|------------|-----------|
|  | h m       | ° /        | ° /       |
| ⊕ Eclipse begins; first contact with Earth       | 5 43.5    | E 17 10.6  | S 28 13.6 |
| Beginning of northern limit of penumbra          | 6 30.7    | W 0 37.0   | S 14 47.4 |
| Beginning of northern limit of umbra             | 7 17.5    | E 12 50.8  | S 53 38.0 |
| Beginning of centre line; central eclipse begins | 7 19.0    | E 13 22.0  | S 54 20.0 |
| Beginning of southern limit of umbra             | 7 20.6    | E 13 55.9  | S 55 03.0 |
| Central eclipse at local apparent noon           | 8 15.2    | E 57 31.3  | S 45 54.8 |
| End of southern limit of umbra                   | 8 49.3    | E 90 34.0  | S 63 12.3 |
| End of centre line; central eclipse ends         | 8 50.8    | E 91 41.4  | S 62 38.9 |
| End of northern limit of umbra                   | 8 52.3    | E 92 43.4  | S 62 05.9 |
| End of northern limit of penumbra                | 9 39.2    | E 116 11.0 | S 25 26.3 |
| ⊙ Eclipse ends; last contact with Earth          | 10 26.3   | E 97 11.8  | S 38 36.7 |