Total Lunar Eclipse of 2051 Oct 19

Ecliptic Conjunction = 19:14:25.5 TD (= 19:12:48.9 UT)
Greatest Eclipse = 19:11:49.6 TD (= 19:10:13.0 UT)

Penumbral Magnitude = 2.3708 P. Radius = 1.3045° Gamma = -0.2542
Umbral Magnitude = 1.4118 U. Radius = 0.7693° Axis = 0.2603°

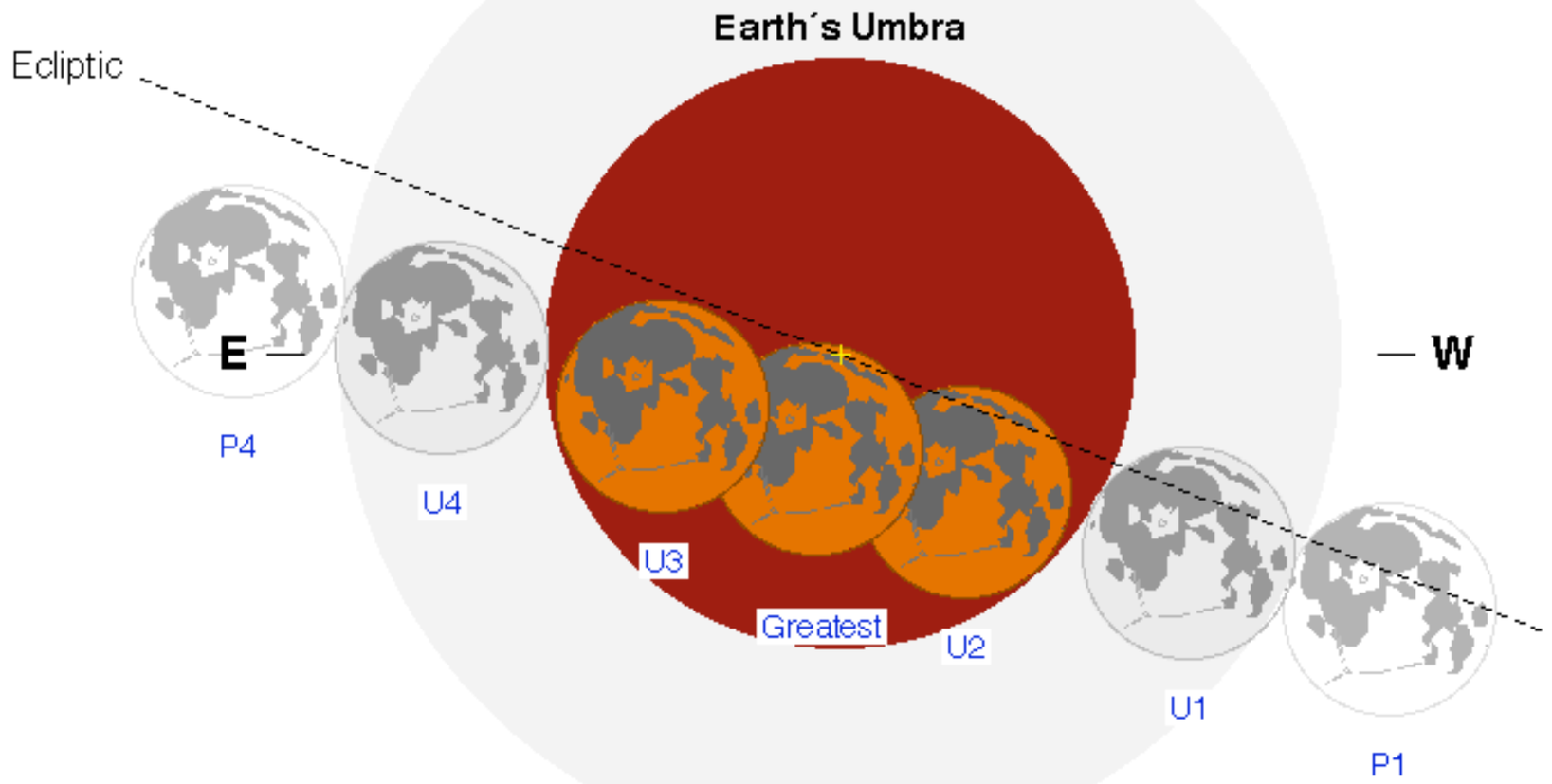
Saros Series = 137 Member = 30 of 81

<u>Sun at Greatest Eclipse</u>
(Geocentric Coordinates)

R.A. = 13h37m47.1s
Dec. = -10°10'03.4"
S.D. = 00°16'03.4"
H.P. = 00°00'08.8"

<u>Moon at Greatest Eclipse</u>
(Geocentric Coordinates)

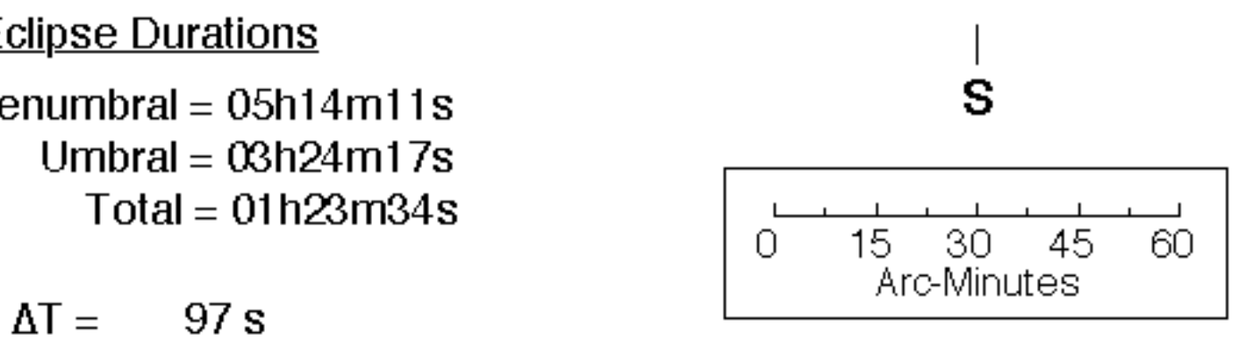
R.A. = 01h38m04.1s
Dec. = +09°55'00.5"
S.D. = 00°16'44.6"
H.P. = 01°01'27.0"



<u>Eclipse Durations</u>

Penumbral = 05h14m11s
Umbral = 03h24m17s
Total = 01h23m34s

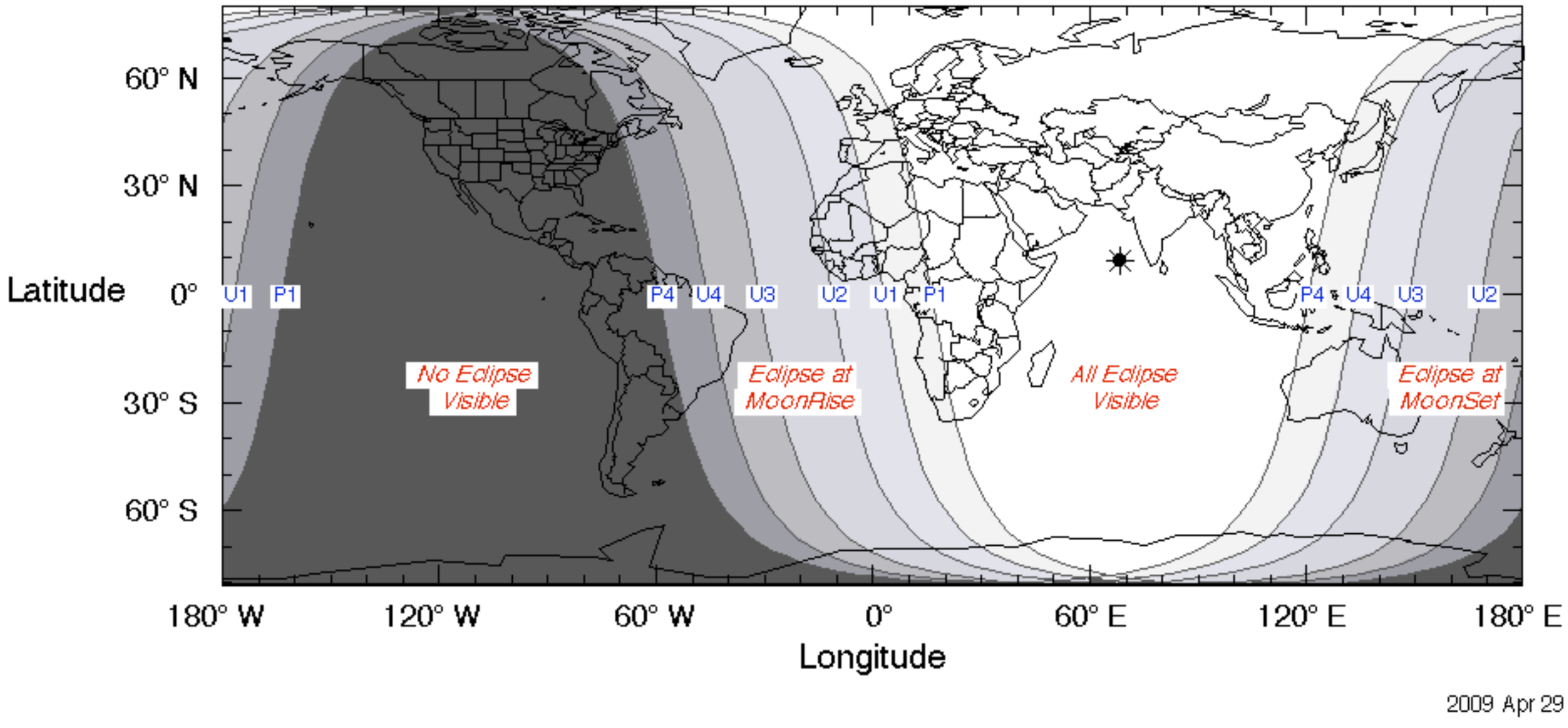
ΔT = 97 s
Rule = CdT (Danjon)
Eph. = VSOP87/ELP2000-85



F. Espenak, NASA's GSFC
eclipse.gsfc.nasa.gov/eclipse.html

<u>Eclipse Contacts</u>

P1 = 16:33:07 UT
U1 = 17:28:05 UT
U2 = 18:28:26 UT
U3 = 19:52:00 UT
U4 = 20:52:21 UT
P4 = 21:47:18 UT



2009 Apr 29