

Total Lunar Eclipse of 2033 Oct 08

Ecliptic Conjunction = 10:59:19.6 TD (= 10:57:59.5 UT)

Greatest Eclipse = 10:56:22.6 TD (= 10:55:02.5 UT)

Penumbral Magnitude = 2.3057

P. Radius = 1.3037°

Gamma = -0.2889

Umbral Magnitude = 1.3497

U. Radius = 0.7701°

Axis = 0.2958°

Saros Series = 137 Member = 29 of 81

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 12h57m01.9s

Dec. = -06°05'34.5"

S.D. = 00°16'00.5"

H.P. = 00°00'08.8"

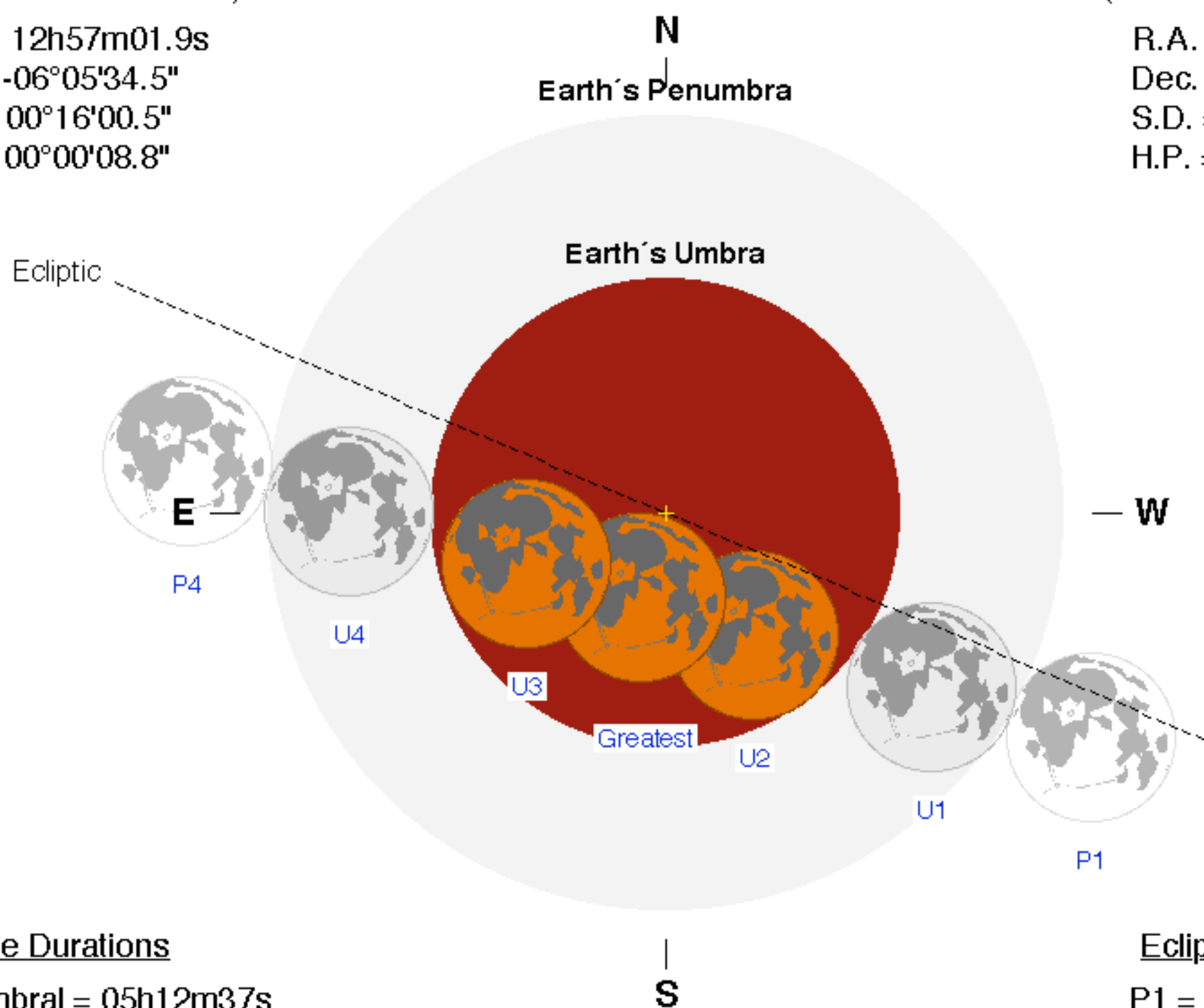
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 00h57m22.8s

Dec. = +05°48'36.1"

S.D. = 00°16'44.6"

H.P. = 01°01'27.1"



Eclipse Durations

Penumbral = 05h12m37s

Umbral = 03h22m24s

Total = 01h18m49s

$\Delta T = 80$ s

Rule = CdT (Danjon)

Eph. = VSOP87/ELP2000-85

Eclipse Contacts

P1 = 08:18:44 UT

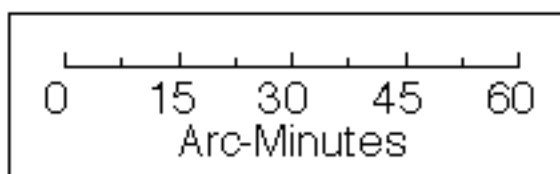
U1 = 09:13:50 UT

U2 = 10:15:38 UT

U3 = 11:34:27 UT

U4 = 12:36:15 UT

P4 = 13:31:21 UT



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

