

Total Lunar Eclipse of 1963 Dec 30

Ecliptic Conjunction = 11:04:24.6 TD (= 11:03:49.5 UT)

Greatest Eclipse = 11:07:25.2 TD (= 11:06:50.1 UT)

Penumbral Magnitude = 2.3206

P. Radius = 1.2932°

Gamma = -0.2889

Umbral Magnitude = 1.3350

U. Radius = 0.7510°

Axis = 0.2916°

Saros Series = 124 Member = 46 of 74

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 18h34m56.9s

Dec. = -23°12'00.5"

S.D. = 00°16'15.9"

H.P. = 00°00'08.9"

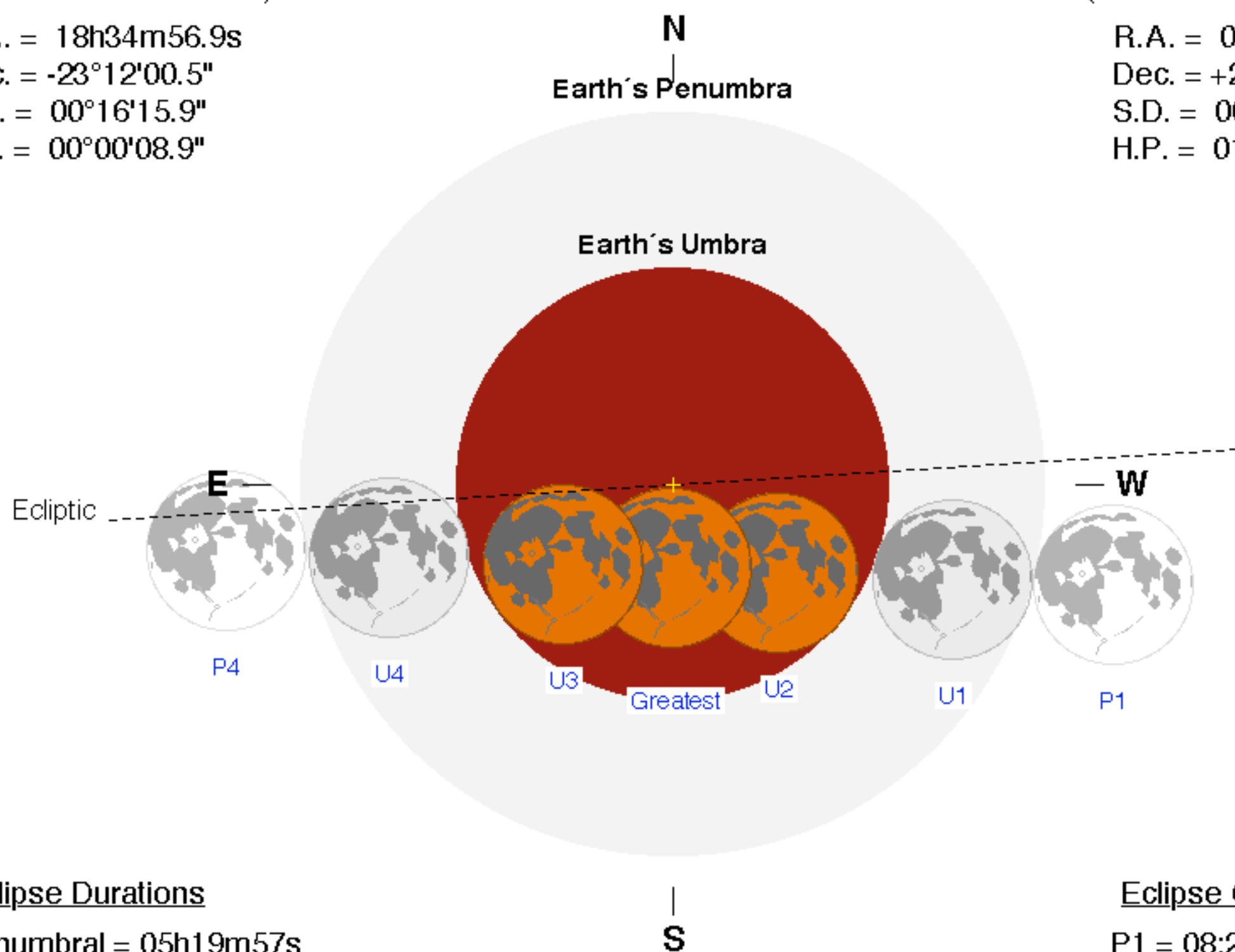
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 06h34m59.9s

Dec. = +22°54'31.5"

S.D. = 00°16'30.2"

H.P. = 01°00'34.1"



Eclipse Durations

Penumbral = 05h19m57s

Umbral = 03h24m18s

Total = 01h18m07s

$\Delta T = 35$ s

Rule = CdT (Danjon)

Eph. = VSOP87/ELP2000-85

Eclipse Contacts

P1 = 08:26:53 UT

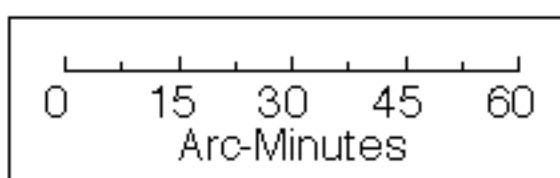
U1 = 09:24:40 UT

U2 = 10:27:46 UT

U3 = 11:45:53 UT

U4 = 12:48:58 UT

P4 = 13:46:50 UT



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

