

Penumbral Lunar Eclipse of 1983 Dec 20

Ecliptic Conjunction = 02:01:10.0 TD (= 02:00:16.3 UT)

Greatest Eclipse = 01:49:57.3 TD (= 01:49:03.6 UT)

Penumbral Magnitude = 0.8890

P. Radius = 1.2721°

Gamma = 1.0746

Umbral Magnitude = -0.1167

U. Radius = 0.7302°

Axis = 1.0625°

Saros Series = 144

Member = 14 of 71

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 17h49m31.1s

Dec. = -23°25'11.6"

S.D. = 00°16'15.5"

H.P. = 00°00'08.9"

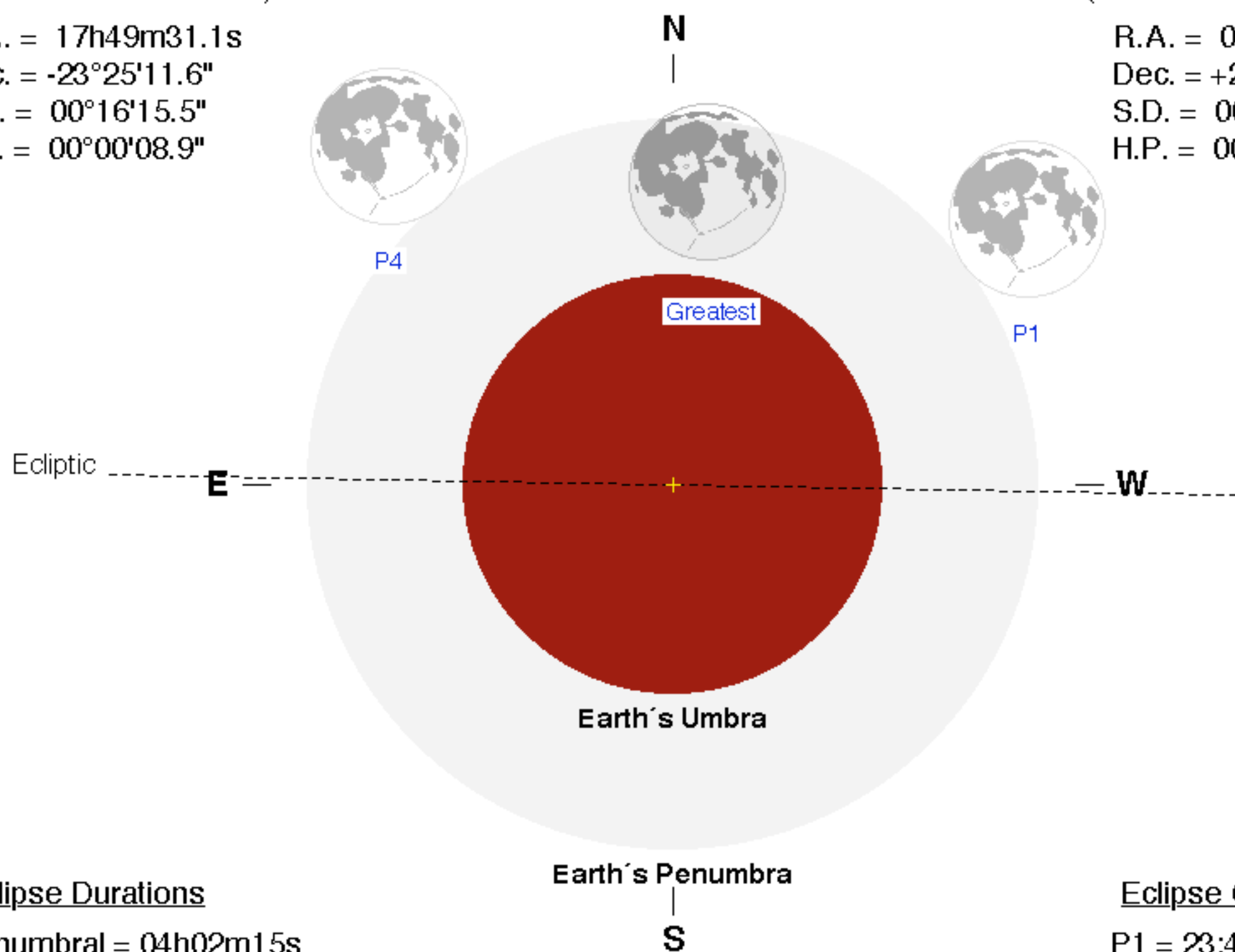
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 05h48m58.9s

Dec. = +24°28'31.2"

S.D. = 00°16'09.9"

H.P. = 00°59'19.5"



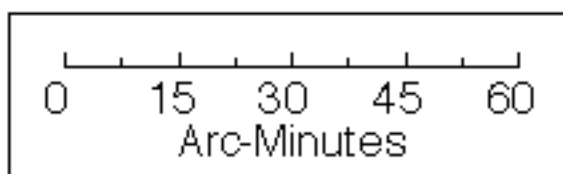
Eclipse Durations

Penumbral = 04h02m15s

Eclipse Contacts

P1 = 23:47:59 UT

P4 = 03:50:14 UT



$\Delta T = 54$ s

Rule = CdT (Danjon)

Eph. = VSOP87/ELP2000-85

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

