

Penumbral Lunar Eclipse of 1963 Jan 09

Ecliptic Conjunction = 23:08:40.7 TD (= 23:08:06.1 UT)

Greatest Eclipse = 23:19:42.4 TD (= 23:19:07.8 UT)

Penumbral Magnitude = 1.0180

P. Radius = 1.2430°

Gamma = -1.0128

Umbral Magnitude = -0.0185

U. Radius = 0.7009°

Axis = 0.9721°

Saros Series = 114 Member = 56 of 71

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 19h22m13.4s

Dec. = -22°05'52.3"

S.D. = 00°16'15.9"

H.P. = 00°00'08.9"

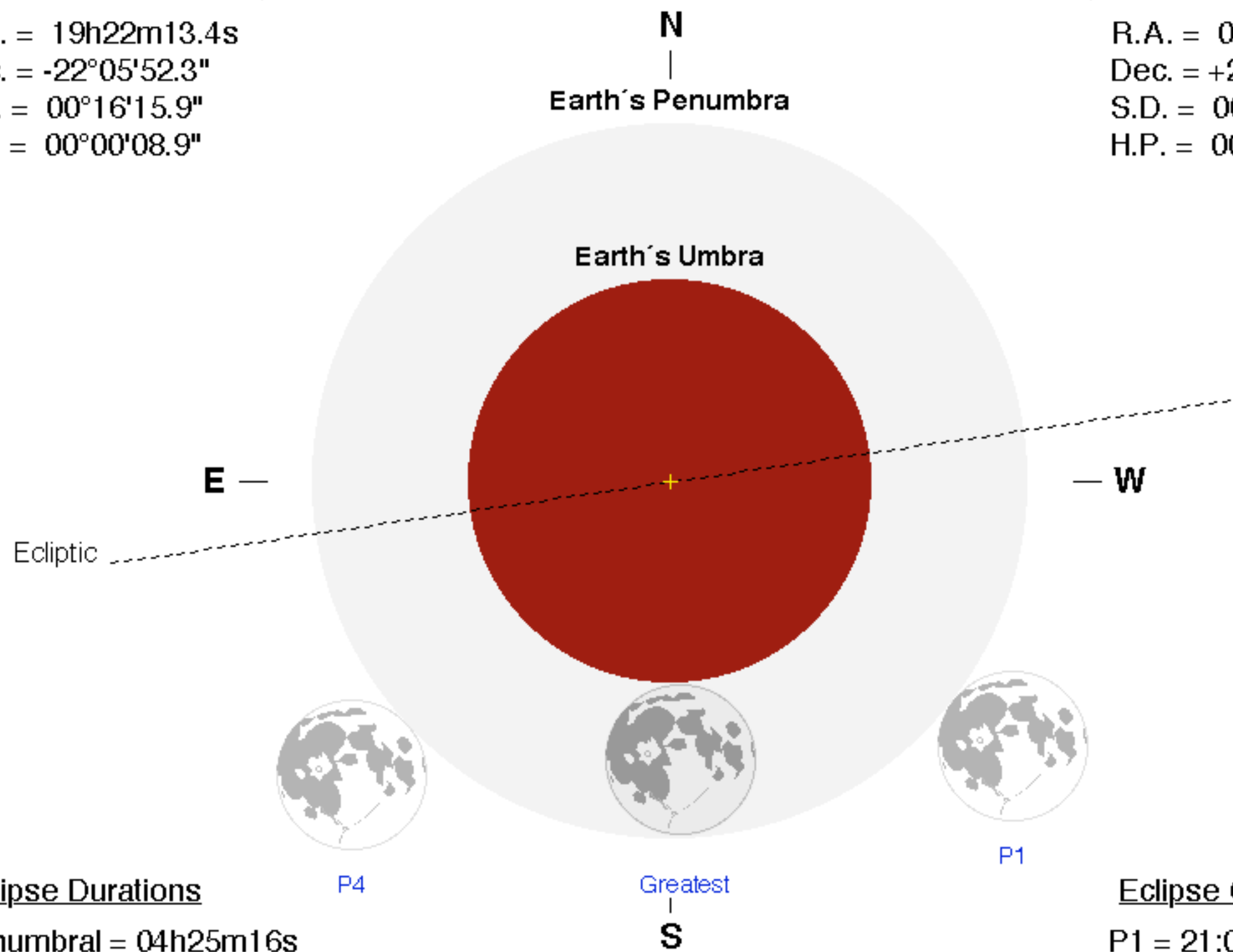
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 07h22m02.8s

Dec. = +21°07'35.8"

S.D. = 00°15'41.5"

H.P. = 00°57'35.5"



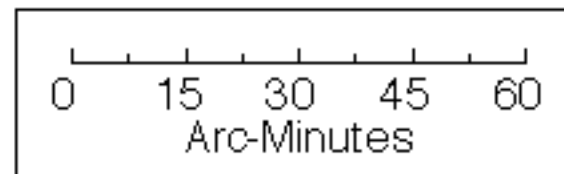
Eclipse Durations

Penumbral = 04h25m16s

Eclipse Contacts

P1 = 21:06:27 UT

P4 = 01:31:44 UT



$\Delta T = 35 \text{ s}$

Rule = CdT (Danjon)

Eph. = VSOP87/ELP2000-85

F. Espenak, NASA's GSFC

eclipse.gsfc.nasa.gov/eclipse.html

