

# Penumbral Lunar Eclipse of 1988 Mar 03

Ecliptic Conjunction = 16:01:59.8 TD (= 16:01:04.0 UT)

Greatest Eclipse = 16:13:40.8 TD (= 16:12:45.0 UT)

Penumbral Magnitude = 1.0907

P. Radius = 1.1835°

Gamma = 0.9885

Umbral Magnitude = -0.0017

U. Radius = 0.6459°

Axis = 0.8928°

Saros Series = 113

Member = 62 of 71

## Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 22h58m28.1s

Dec. = -06°33'42.6"

S.D. = 00°16'07.8"

H.P. = 00°00'08.9"

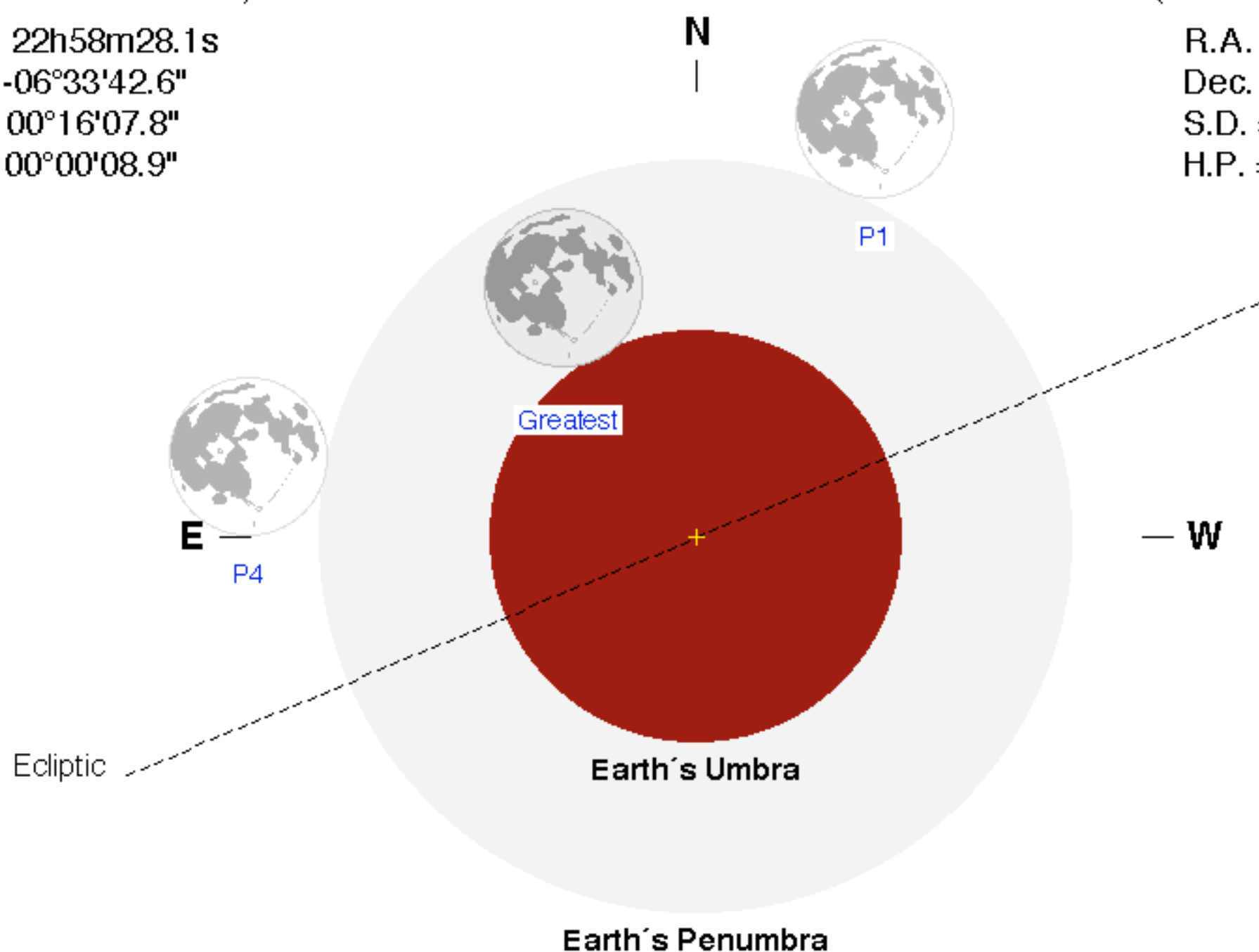
## Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 11h00m10.3s

Dec. = +07°20'53.6"

S.D. = 00°14'46.0"

H.P. = 00°54'11.6"



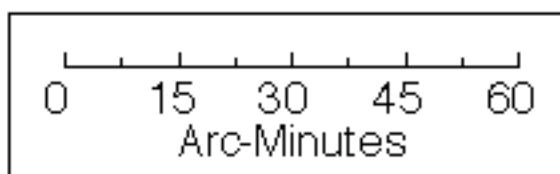
## Eclipse Durations

Penumbral = 04h53m45s

## Eclipse Contacts

P1 = 13:45:52 UT

P4 = 18:39:37 UT



$\Delta T = 56$  s

Rule = CdT (Danjon)

Eph. = VSOP87/ELP2000-85

F. Espenak, NASA's GSFC

[eclipse.gsfc.nasa.gov/eclipse.html](http://eclipse.gsfc.nasa.gov/eclipse.html)

