

Penumbral Lunar Eclipse of 2038 Jan 21

Ecliptic Conjunction = 04:01:09.9 TD (= 03:59:46.7 UT)

Greatest Eclipse = 03:49:51.6 TD (= 03:48:28.4 UT)

Penumbral Magnitude = 0.8996

P. Radius = 1.2640°

Gamma = 1.0710

Umbral Magnitude = -0.1140

U. Radius = 0.7223°

Axis = 1.0505°

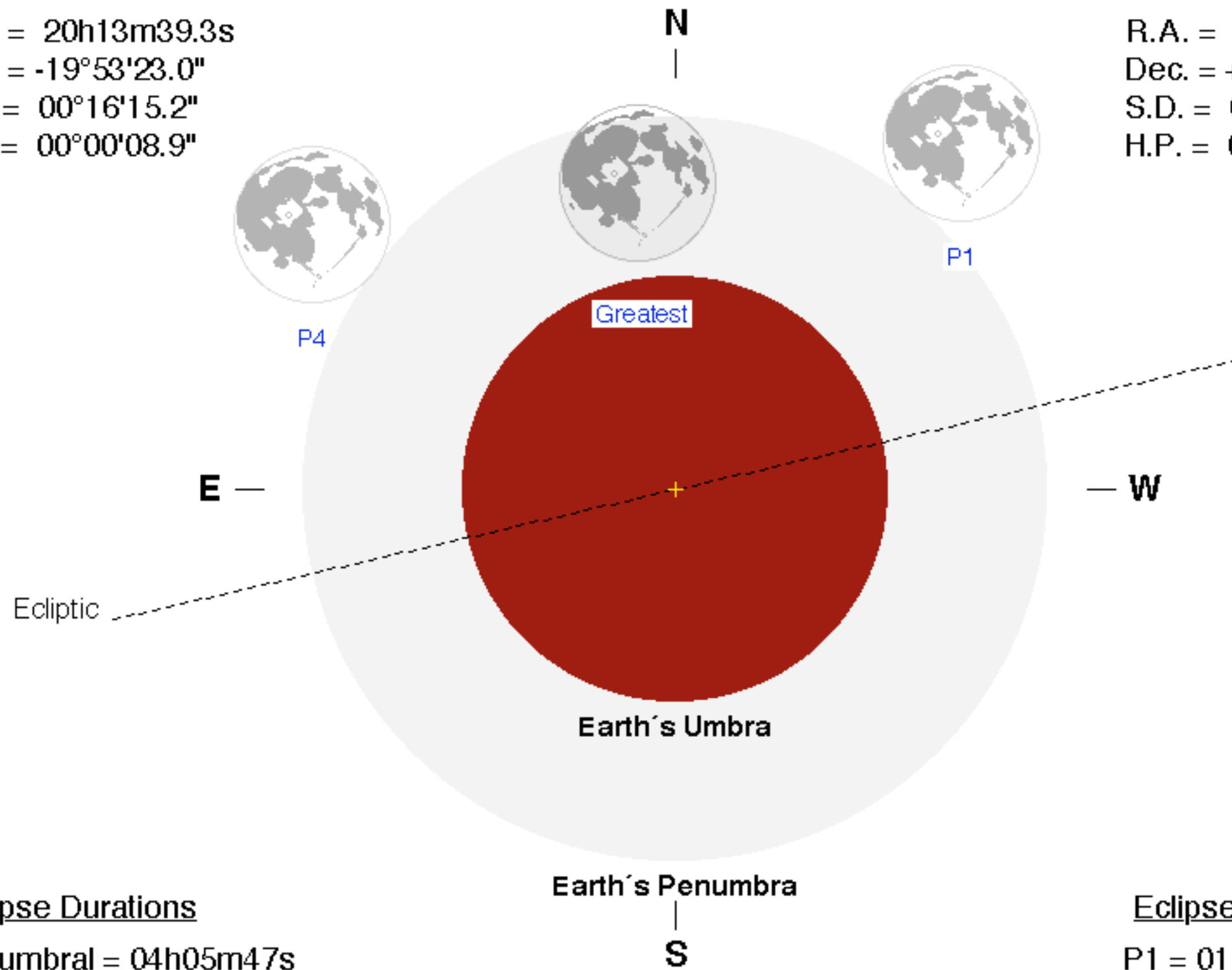
Saros Series = 144 Member = 17 of 71

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 20h13m39.3s
Dec. = -19°53'23.0"
S.D. = 00°16'15.2"
H.P. = 00°00'08.9"

Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 08h14m12.5s
Dec. = +20°55'55.8"
S.D. = 00°16'02.1"
H.P. = 00°58'51.1"



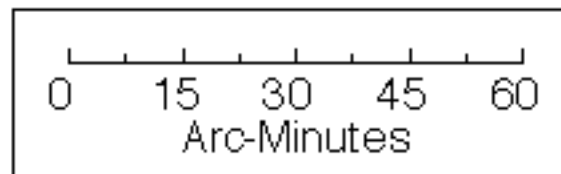
Eclipse Durations

Penumbral = 04h05m47s

Eclipse Contacts

P1 = 01:45:37 UT

P4 = 05:51:25 UT



$\Delta T = 83$ s

Rule = CdT (Danjon)

Eph. = VSOP87/ELP2000-85

F. Espenak, NASA's GSFC

eclipse.gsfc.nasa.gov/eclipse.html

