Annular Solar Eclipse of 1831 Feb 12

Ecliptic Conjunction = 17:13:43.3 TD (= 17:13:36.3 UT)
Greatest Eclipse = 17:21:44.5 TD (= 17:21:37.5 UT)

Eclipse Magnitude = 0.9807 Gamma = 0.7288

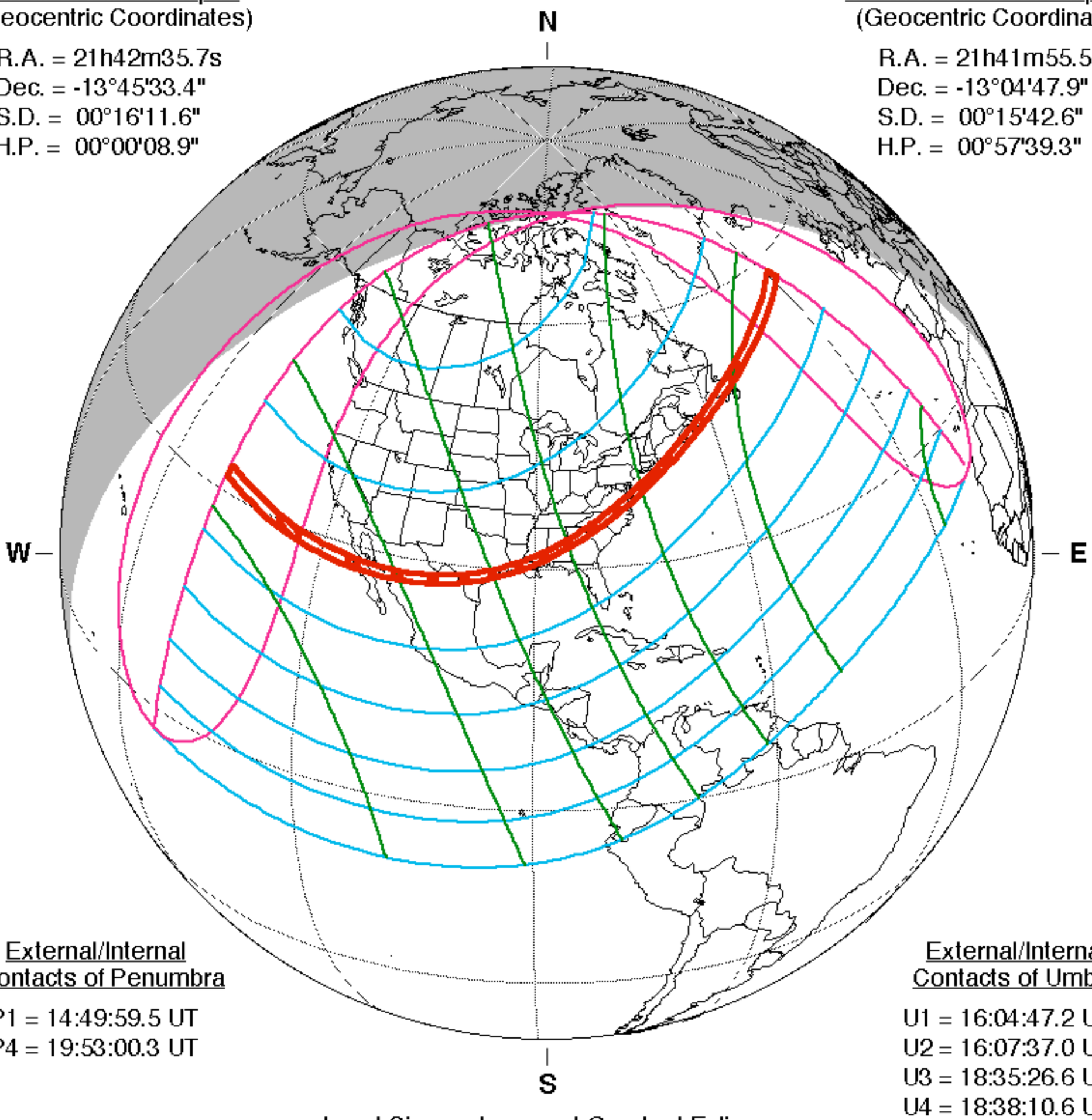
Saros Series = 118 Member = 58 of 72

Sun at Greatest Eclipse
(Geocentric Coordinates)

R.A. = 21h42m35.7s
Dec. = -13°45'33.4"
S.D. = 00°16'11.6"
H.P. = 00°00'08.9"

Moon at Greatest Eclipse
(Geocentric Coordinates)

R.A. = 21h41m55.5s
Dec. = -13°04'47.9"
S.D. = 00°15'42.6"
H.P. = 00°57'39.3"



External/Internal Contacts of Penumbra

P1 = 14:49:59.5 UT
P4 = 19:53:00.3 UT

External/Internal Contacts of Umbra

U1 = 16:04:47.2 UT
U2 = 16:07:37.0 UT
U3 = 18:35:26.6 UT
U4 = 18:38:10.6 UT

Local Circumstances at Greatest Eclipse

Lat. = 31°55.7'N Sun Alt. = 43.0°
Long. = 088°19.1'W Sun Azm. = 164.6°
Path Width = 99.6 km Duration = 01m56.9s

Constants & Ephemeris

ΔT = 7.0 s
k1 = 0.2724880
k2 = 0.2722810
Δb = 0.0" Δl = 0.0"
Eph. = VSOP87/ELP2000-82

0 1000 2000 3000 4000 5000
Kilometers

Geocentric Libration
(Optical + Physical)

l = -5.03°
b = -0.92°
c = -20.67°

Brown Lun. No. =-1136

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eclipse.gsfc.nasa.gov/eclipse.html