Annular Solar Eclipse of 1836 May 15

Ecliptic Conjunction = 14:07:11.6 TD (= 14:07:06.1 UT)
Greatest Eclipse = 14:01:38.7 TD (= 14:01:33.3 UT)

Eclipse Magnitude = 0.9509 Gamma = 0.4700

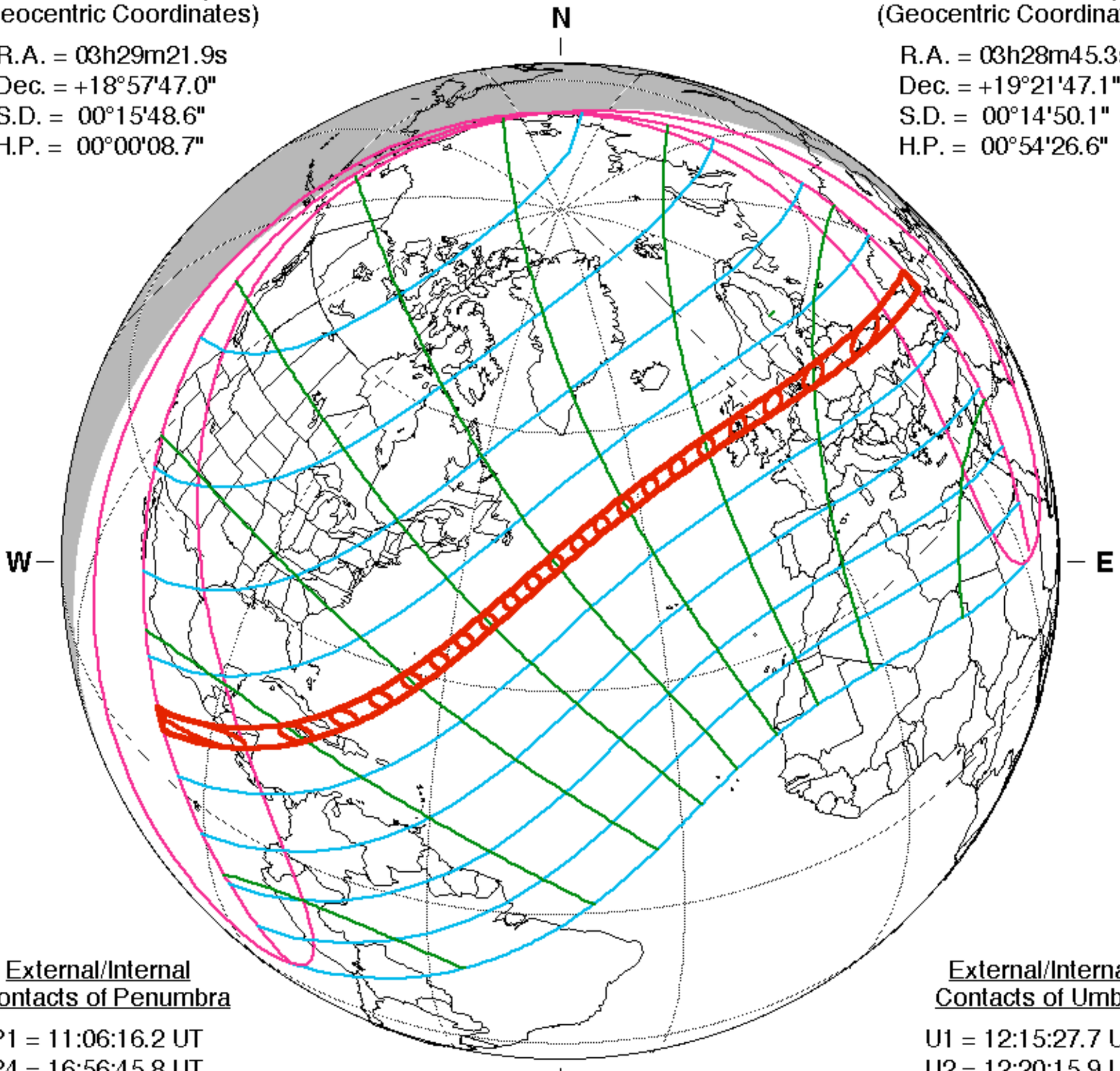
Saros Series = 135 Member = 29 of 71

<u>Sun at Greatest Eclipse</u>
(Geocentric Coordinates)

R.A. = 03h29m21.9s
Dec. = +18°57'47.0"
S.D. = 00°15'48.6"
H.P. = 00°00'08.7"

<u>Moon at Greatest Eclipse</u>
(Geocentric Coordinates)

R.A. = 03h28m45.3s
Dec. = +19°21'47.1"
S.D. = 00°14'50.1"
H.P. = 00°54'26.6"



<u>External/Internal Contacts of Penumbra</u>

P1 = 11:06:16.2 UT
P4 = 16:56:45.8 UT

<u>External/Internal Contacts of Umbra</u>

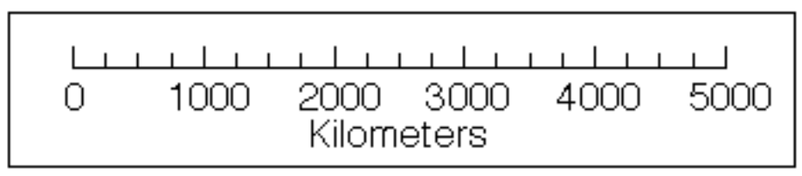
U1 = 12:15:27.7 UT
U2 = 12:20:15.9 UT
U3 = 15:42:36.5 UT
U4 = 15:47:28.4 UT

<u>Local Circumstances at Greatest Eclipse</u>

Lat. = 45°03.9'N Sun Alt. = 61.7°
Long. = 044°23.2'W Sun Azm. = 153.3°
Path Width = 203.1 km Duration = 04m47.4s

<u>Constants & Ephemeris</u>

ΔT = 5.5 s
k1 = 0.2724880
k2 = 0.2722810
Δb = 0.0" Δl = 0.0"
Eph. = VSOP87/ELP2000-82



<u>Geocentric Libration</u>
(Optical + Physical)

l = 2.55°
b = -0.55°
c = -12.58°

Brown Lun. No. =-1071

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eclipse.gsfc.nasa.gov/eclipse.html