

Annular Solar Eclipse of 0334 Jul 17

Ecliptic Conjunction = 13:19:55.4 TD (= 11:18:04.7 UT)

Greatest Eclipse = 13:23:32.1 TD (= 11:21:41.4 UT)

Eclipse Magnitude = 0.9759 Gamma = 0.3168

Saros Series = 80 Member = 38 of 71

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 07h43m35.6s

Dec. = +21°30'21.5"

S.D. = 00°15'47.0"

H.P. = 00°00'08.7"

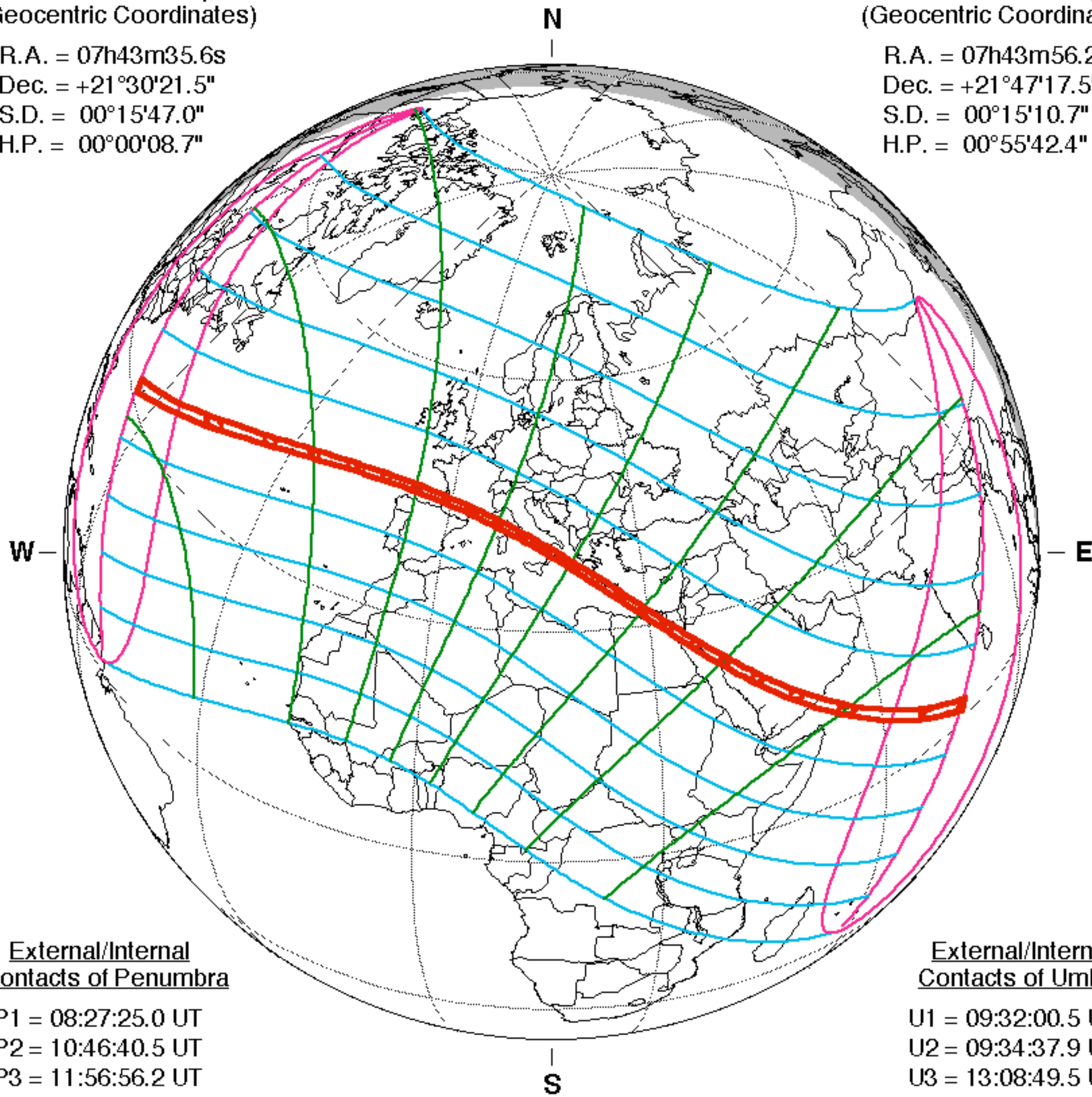
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 07h43m56.2s

Dec. = +21°47'17.5"

S.D. = 00°15'10.7"

H.P. = 00°55'42.4"



External/Internal Contacts of Penumbra

P1 = 08:27:25.0 UT

P2 = 10:46:40.5 UT

P3 = 11:56:56.2 UT

P4 = 14:16:08.1 UT

External/Internal Contacts of Umbra

U1 = 09:32:00.5 UT

U2 = 09:34:37.9 UT

U3 = 13:08:49.5 UT

U4 = 13:11:32.3 UT

Local Circumstances at Greatest Eclipse

Lat. = 39°21.5'N

Sun Alt. = 71.3°

Long. = 016°40.2'E

Sun Azm. = 198.9°

Path Width = 90.6 km Duration = 02m23.2s

Constants & Ephemeris

$\Delta T = 7310.7$ s

$k_1 = 0.2724880$

$k_2 = 0.2722810$

$\Delta b = 0.0''$ $\Delta l = 0.0''$

Eph. = VSOP87/ELP2000-82

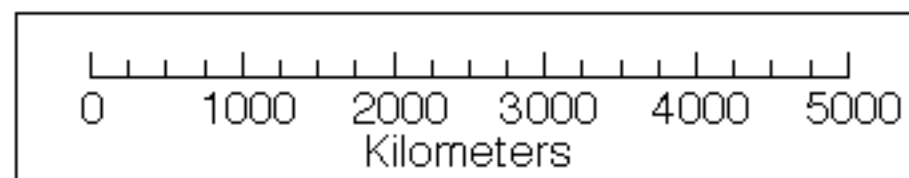
Geocentric Libration (Optical + Physical)

$l = 4.67^\circ$

$b = -0.32^\circ$

$c = 8.58^\circ$

Brown Lun. No. = -19646



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eclipse.gsfc.nasa.gov/eclipse.html