

Total Solar Eclipse of 0569 Nov 24

Ecliptic Conjunction = 07:46:35.4 TD (= 06:23:12.9 UT)

Greatest Eclipse = 07:46:43.9 TD (= 06:23:21.4 UT)

Eclipse Magnitude = 1.0361 Gamma = 0.0140

Saros Series = 90 Member = 40 of 83

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 16h10m56.2s

Dec. = -21°14'46.3"

S.D. = 00°16'16.0"

H.P. = 00°00'08.9"

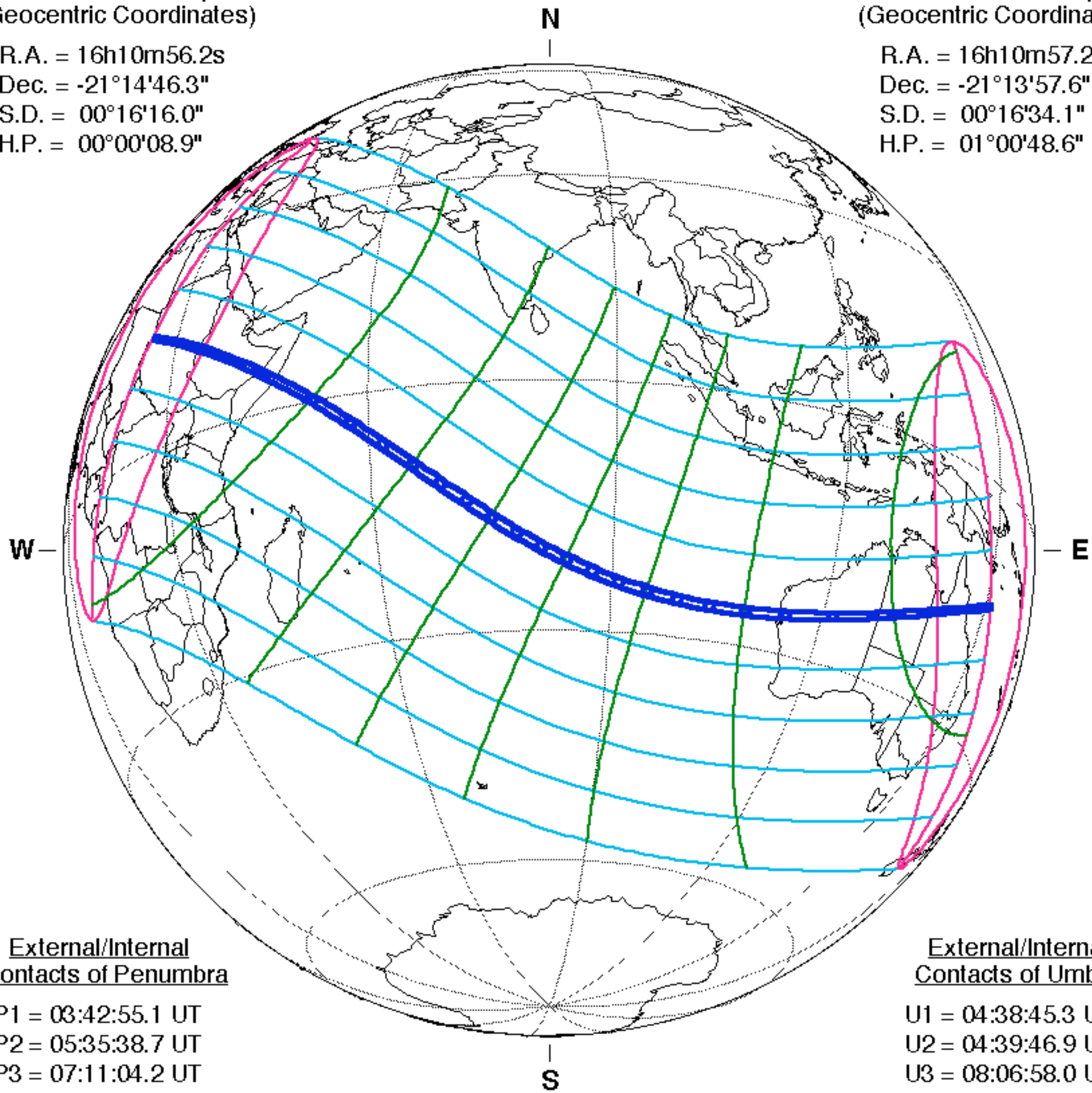
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 16h10m57.2s

Dec. = -21°13'57.6"

S.D. = 00°16'34.1"

H.P. = 01°00'48.6"



External/Internal Contacts of Penumbra

P1 = 03:42:55.1 UT

P2 = 05:35:38.7 UT

P3 = 07:11:04.2 UT

P4 = 09:03:51.1 UT

External/Internal Contacts of Umbra

U1 = 04:38:45.3 UT

U2 = 04:39:46.9 UT

U3 = 08:06:58.0 UT

U4 = 08:07:56.7 UT

Local Circumstances at Greatest Eclipse

Lat. = 20°36.2'S

Sun Alt. = 89.3°

Long. = 081°59.3'E

Sun Azm. = 199.1°

Path Width = 121.3 km Duration = 03m16.9s

Constants & Ephemeris

$\Delta T = 5002.5$ s

$k_1 = 0.2724880$

$k_2 = 0.2722810$

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

Eph. = VSOP87/ELP2000-82

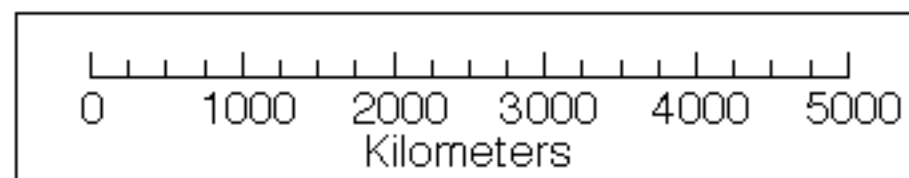
Geocentric Libration (Optical + Physical)

$l = 2.58^\circ$

$b = 0.03^\circ$

$c = 9.06^\circ$

Brown Lun. No. = -16735



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eclipse.gsfc.nasa.gov/eclipse.html