

Total Solar Eclipse of 1970 Mar 07

Ecliptic Conjunction = 17:43:07.1 TD (= 17:42:26.8 UT)

Greatest Eclipse = 17:38:29.7 TD (= 17:37:49.3 UT)

Eclipse Magnitude = 1.0414 Gamma = 0.4473

Saros Series = 139 Member = 27 of 71

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 23h11m11.6s

Dec. = -05°14'13.6"

S.D. = 00°16'06.8"

H.P. = 00°00'08.9"

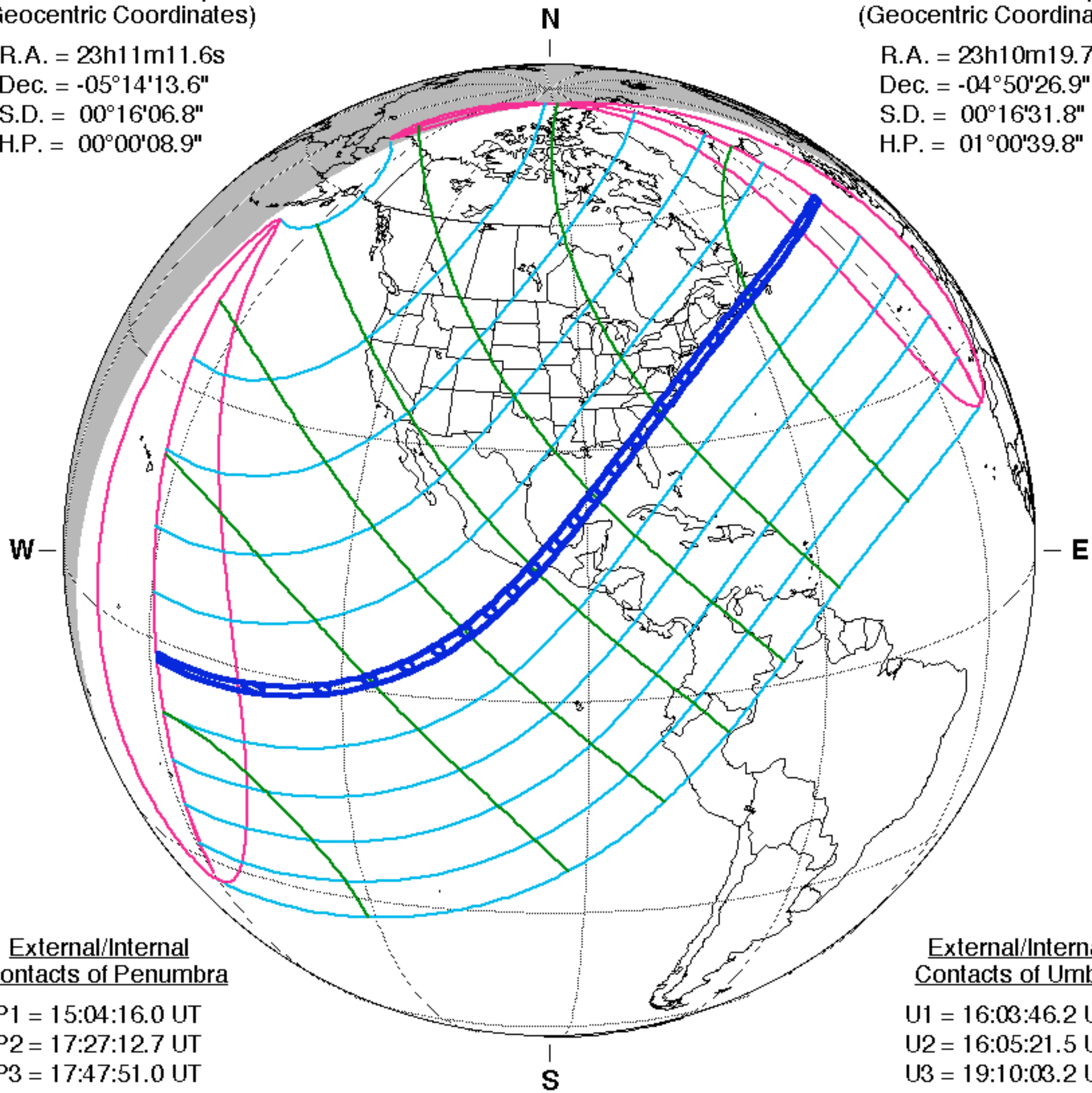
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 23h10m19.7s

Dec. = -04°50'26.9"

S.D. = 00°16'31.8"

H.P. = 01°00'39.8"



External/Internal Contacts of Penumbra

P1 = 15:04:16.0 UT

P2 = 17:27:12.7 UT

P3 = 17:47:51.0 UT

P4 = 20:11:15.7 UT

External/Internal Contacts of Umbra

U1 = 16:03:46.2 UT

U2 = 16:05:21.5 UT

U3 = 19:10:03.2 UT

U4 = 19:11:35.7 UT

Local Circumstances at Greatest Eclipse

Lat. = 18°09.4'N

Sun Alt. = 63.3°

Long. = 094°40.5'W

Sun Azm. = 150.1°

Path Width = 153.4 km Duration = 03m27.6s

Constants & Ephemeris

$\Delta T = 40.4$ s

$k_1 = 0.2724880$

$k_2 = 0.2722810$

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

Eph. = VSOP87/ELP2000-82

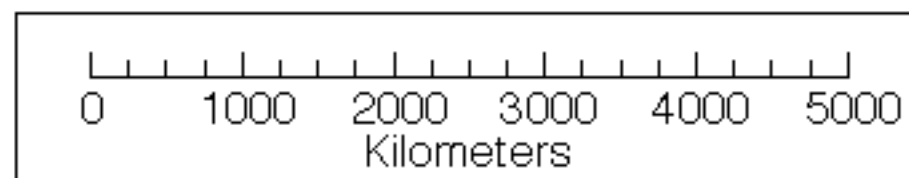
Geocentric Libration (Optical + Physical)

$l = 2.55^\circ$

$b = -0.57^\circ$

$c = -21.35^\circ$

Brown Lun. No. = 584



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eclipse.gsfc.nasa.gov/eclipse.html