

Hybrid Solar Eclipse of 0071 Mar 20

Ecliptic Conjunction = 12:05:48.8 TD (= 09:21:58.5 UT)

Greatest Eclipse = 11:58:47.9 TD (= 09:14:57.7 UT)

Eclipse Magnitude = 1.0069 Gamma = 0.6541

Saros Series = 79 Member = 29 of 71

Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 23h51m06.9s

Dec. = -00°58'27.0"

S.D. = 00°15'54.8"

H.P. = 00°00'08.8"

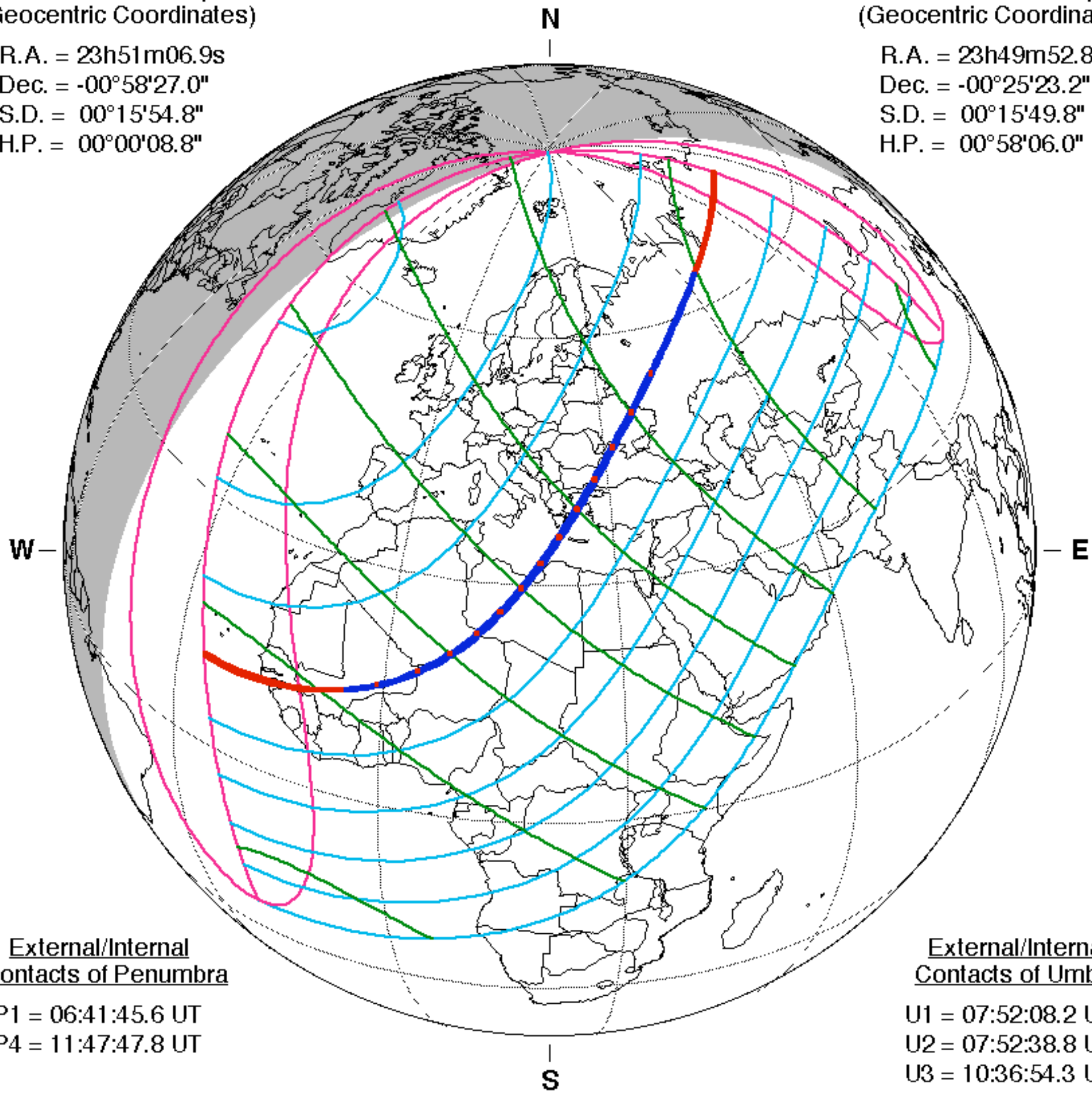
Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 23h49m52.8s

Dec. = -00°25'23.2"

S.D. = 00°15'49.8"

H.P. = 00°58'06.0"



External/Internal Contacts of Penumbra

P1 = 06:41:45.6 UT

P4 = 11:47:47.8 UT

External/Internal Contacts of Umbra

U1 = 07:52:08.2 UT

U2 = 07:52:38.8 UT

U3 = 10:36:54.3 UT

U4 = 10:37:19.3 UT

Local Circumstances at Greatest Eclipse

Lat. = 34°06.5'N

Sun Alt. = 49.0°

Long. = 020°45.6'E

Sun Azm. = 144.0°

Path Width = 30.9 km Duration = 00m34.9s

Constants & Ephemeris

$\Delta T = 9830.2$ s

$k_1 = 0.2724880$

$k_2 = 0.2722810$

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

Eph. = VSOP87/ELP2000-82

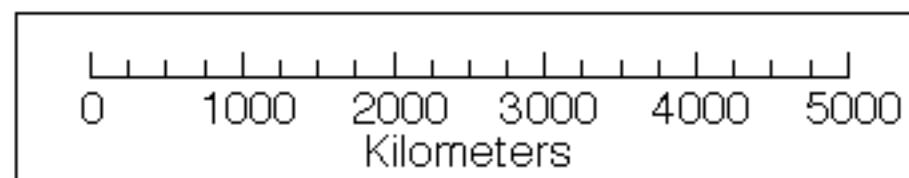
Geocentric Libration (Optical + Physical)

$l = -5.15^\circ$

$b = -0.77^\circ$

$c = -22.14^\circ$

Brown Lun. No. = -22903



F. Espenak, NASA's GSFC

eclipse.gsfc.nasa.gov/eclipse.html