

# Total Solar Eclipse of 1230 May 14

Ecliptic Conjunction = 04:46:59.1 TD (= 04:36:13.6 UT)

Greatest Eclipse = 04:56:10.2 TD (= 04:45:24.7 UT)

Eclipse Magnitude = 1.0597      Gamma = 0.9078

Saros Series = 96      Member = 64 of 72

## Sun at Greatest Eclipse (Geocentric Coordinates)

R.A. = 03h49m45.4s

Dec. = +20°09'36.3"

S.D. = 00°15'45.8"

H.P. = 00°00'08.7"

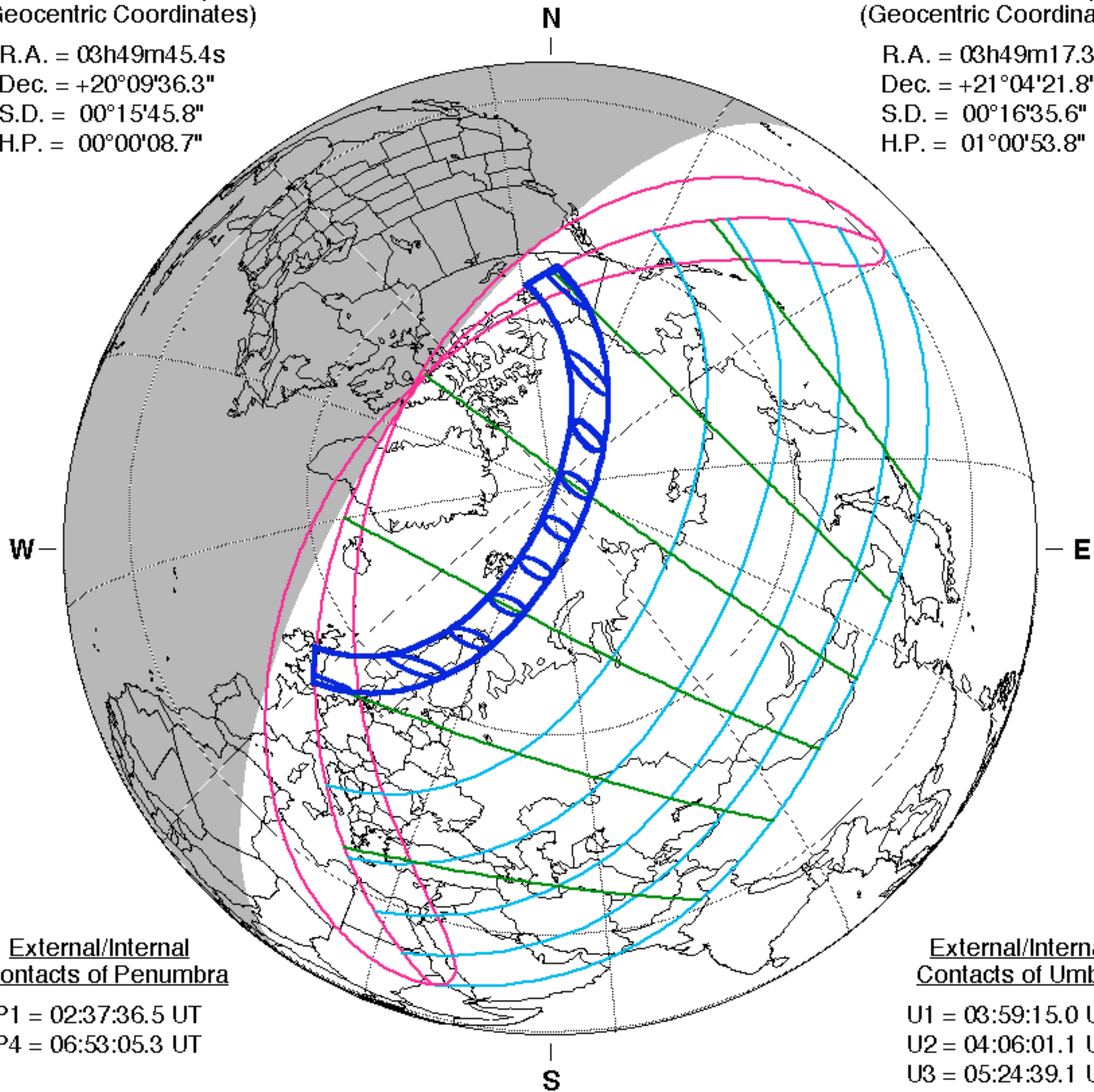
## Moon at Greatest Eclipse (Geocentric Coordinates)

R.A. = 03h49m17.3s

Dec. = +21°04'21.8"

S.D. = 00°16'35.6"

H.P. = 01°00'53.8"



## External/Internal Contacts of Penumbra

P1 = 02:37:36.5 UT

P4 = 06:53:05.3 UT

## External/Internal Contacts of Umbra

U1 = 03:59:15.0 UT

U2 = 04:06:01.1 UT

U3 = 05:24:39.1 UT

U4 = 05:31:27.9 UT

## Local Circumstances at Greatest Eclipse

Lat. = 82°27.1'N

Sun Alt. = 24.4°

Long. = 052°24.7'E

Sun Azm. = 122.4°

Path Width = 476.1 km      Duration = 03m17.2s

## Constants & Ephemeris

$\Delta T = 645.5$  s

$k_1 = 0.2724880$

$k_2 = 0.2722810$

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

Eph. = VSOP87/ELP2000-82

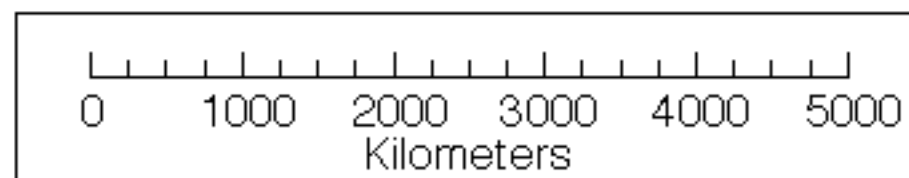
## Geocentric Libration (Optical + Physical)

$l = -2.24^\circ$

$b = -1.18^\circ$

$c = -13.94^\circ$

Brown Lun. No. = -8566



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[eclipse.gsfc.nasa.gov/eclipse.html](http://eclipse.gsfc.nasa.gov/eclipse.html)