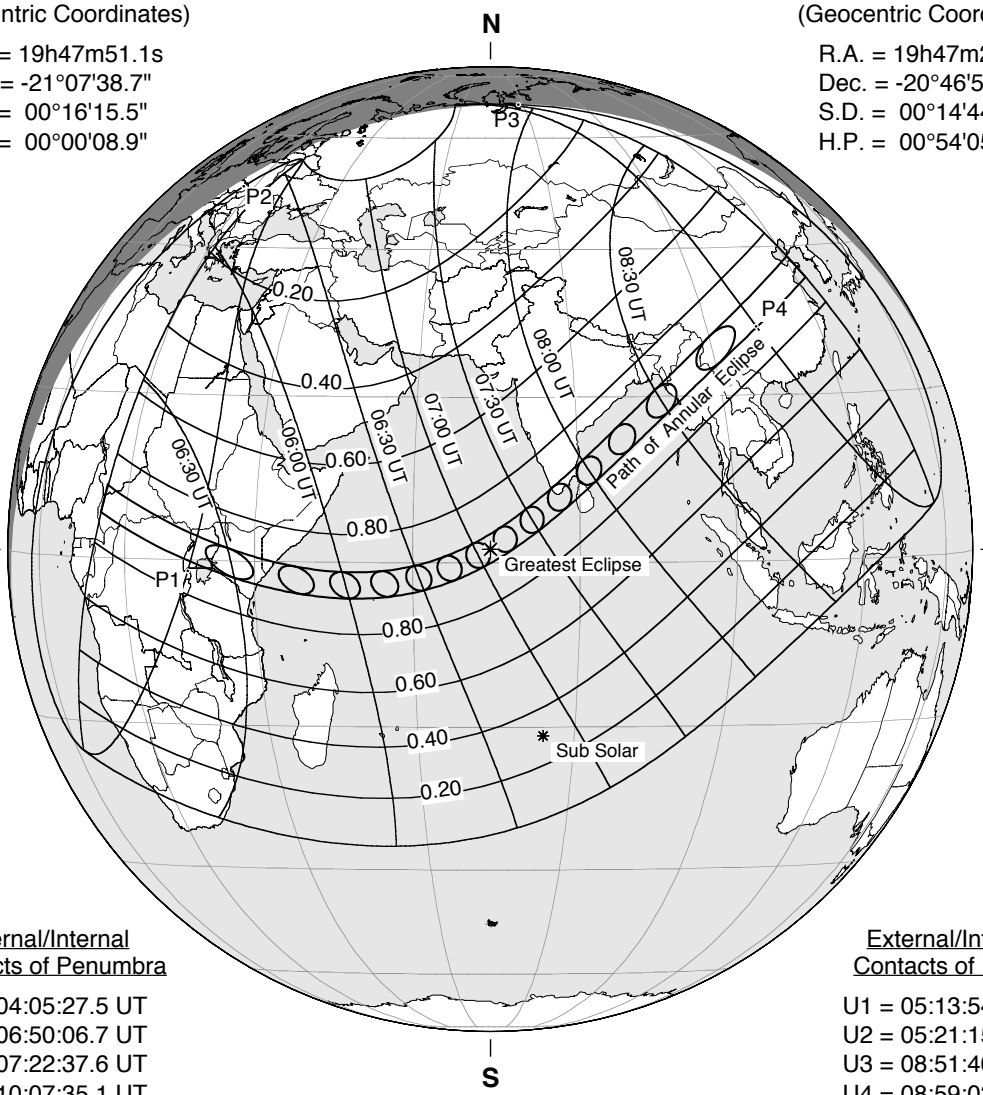
FIGURE 2.1: ORTHOGRAPHIC PROJECTION MAP OF THE ECLIPSE PATH

Annular Solar Eclipse of 2010 Jan 15

Ecliptic Conjunction = 07:12:28.5 TD (= 07:11:22.4 UT)
Greatest Eclipse = 07:07:39.0 TD (= 07:06:33.0 UT)

Eclipse Magnitude = 0.9190 Gamma = 0.4002

Saros Series = 141 Member = 23 of 70



Sun at Greatest Eclipse
(Geocentric Coordinates)

R.A. = 19h47m51.1s
Dec. = -21°07'38.7"
S.D. = 00°16'15.5"
H.P. = 00°00'08.9"

Moon at Greatest Eclipse
(Geocentric Coordinates)

R.A. = 19h47m25.3s
Dec. = -20°46'54.8"
S.D. = 00°14'44.3"
H.P. = 00°54'05.4"

External/Internal Contacts of Penumbra

P1 = 04:05:27.5 UT
P2 = 06:50:06.7 UT
P3 = 07:22:37.6 UT
P4 = 10:07:35.1 UT

External/Internal Contacts of Umbra

U1 = 05:13:54.8 UT
U2 = 05:21:15.8 UT
U3 = 08:51:40.3 UT
U4 = 08:59:03.7 UT

Local Circumstances at Greatest Eclipse

Lat. = 01°37.4'N Sun Alt. = 66.4°
Long. = 069°17.4'E Sun Azm. = 164.9°
Path Width = 333.1 km Duration = 11m07.8s

Constants & Ephemeris

ΔT = 66.0 s
k1 = 0.2725076
k2 = 0.2722810
Δb = 0.0" Δl = 0.0"
Eph. = JPL DE200/LE200

Geocentric Libration
(Optical + Physical)

l = 1.48°
b = -0.48°
c = -8.81°
Brown Lun. No. = 1077

0 1000 2000 3000 4000 5000
Kilometers

NASA 2010 Eclipse Bulletin, Espenak & Anderson