

Eclipses During 2020

Figure 6

Total Solar Eclipse of 2020 Dec 14

Greatest Eclipse = 16:14:39.4 TD (= 16:13:29.1 UT1)

Eclipse Magnitude = 1.0254

Saros Series = 142

Gamma = -0.2939

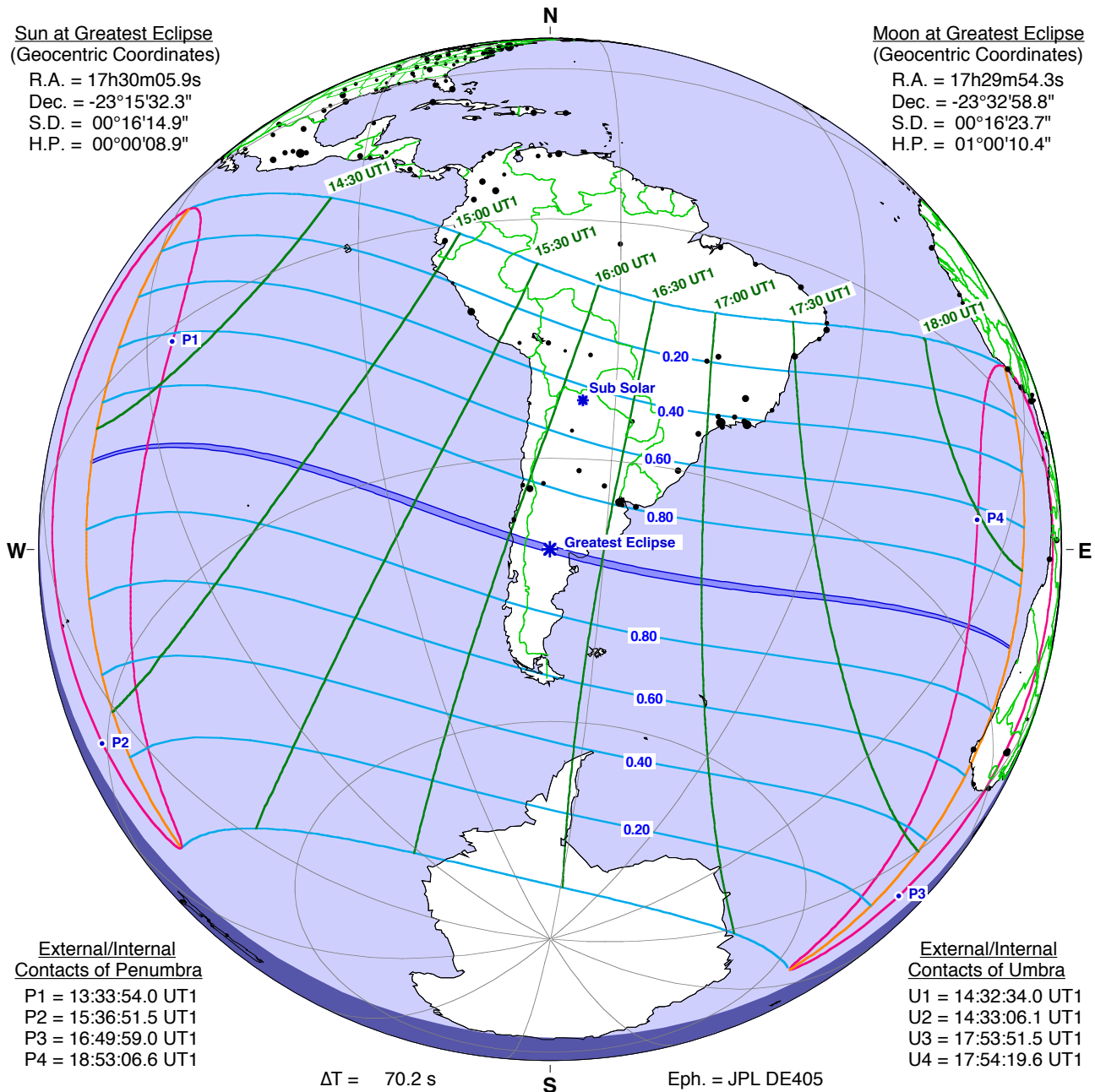
Saros Member = 23 of 72

Sun at Greatest Eclipse
(Geocentric Coordinates)

R.A. = 17h30m05.9s
Dec. = -23°15'32.3"
S.D. = 00°16'14.9"
H.P. = 00°00'08.9"

Moon at Greatest Eclipse
(Geocentric Coordinates)

R.A. = 17h29m54.3s
Dec. = -23°32'58.8"
S.D. = 00°16'23.7"
H.P. = 01°00'10.4"



External/Internal
Contacts of Penumbra

P1 = 13:33:54.0 UT1
P2 = 15:36:51.5 UT1
P3 = 16:49:59.0 UT1
P4 = 18:53:06.6 UT1

External/Internal
Contacts of Umbra

U1 = 14:32:34.0 UT1
U2 = 14:33:06.1 UT1
U3 = 17:53:51.5 UT1
U4 = 17:54:19.6 UT1

$\Delta T = 70.2$ s

S

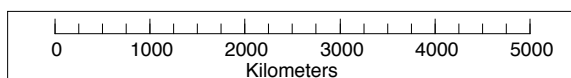
Eph. = JPL DE405

Circumstances at Greatest Eclipse: 16:13:29.1 UT1

Lat. = 40°20.1'S Sun Alt. = 72.7°
Long. = 067°57.4'W Sun Azm. = 10.3°
Path Width = 90.2 km Duration = 02m09.7s

Circumstances at Greatest Duration: 16:13:34.9 UT1

Lat. = 40°20.7'S Sun Alt. = 72.7°
Long. = 067°54.8'W Sun Azm. = 10.1°
Path Width = 90.2 km Duration = 02m09.7s



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