

TABLE 2

**SHADOW CONTACTS AND CIRCUMSTANCES
TOTAL SOLAR ECLIPSE OF 2008 AUGUST 01**

$$\Delta T = 65.6 \text{ s}$$

$$= 000^{\circ}16'26.7''$$

		Terrestrial Dynamical Time h m s	Latitude	Ephemeris Longitude†	True Longitude*
External/Internal Contacts of Penumbra:					
	P ₁	08:05:11.4	50°12.6'N	052°31.1'W	052°14.6'W
	P ₄	12:39:31.4	11°10.0'N	085°19.8'E	085°36.3'E
Extreme North/South Limits of Penumbral Path:					
	N ₁	08:33:37.6	36°15.9'N	050°31.3'W	050°14.9'W
	S ₁	12:10:58.3	03°34.5'S	087°40.5'E	087°56.9'E
External/Internal Contacts of Umbra:					
	U ₁	09:22:12.5	67°53.9'N	101°32.9'W	101°16.5'W
	U ₂	09:25:15.5	68°39.8'N	105°23.0'W	105°06.6'W
	U ₃	11:19:32.9	34°07.4'N	114°17.5'E	114°34.0'E
	U ₄	11:22:31.0	32°52.7'N	112°57.5'E	113°14.0'E
Extreme North/South Limits of Umbral Path:					
	N ₁	09:25:04.0	68°44.1'N	105°38.6'W	105°22.2'W
	S ₁	09:22:24.7	67°49.1'N	101°18.1'W	101°01.7'W
	N ₂	11:19:44.2	34°14.7'N	114°18.2'E	114°34.7'E
	S ₂	11:22:19.1	32°45.1'N	112°57.0'E	113°13.4'E
Extreme Limits of Central Line:					
	C ₁	09:23:43.2	68°16.9'N	103°24.7'W	103°08.3'W
	C ₂	11:21:02.8	33°29.4'N	113°36.9'E	113°53.3'E
Instant of Greatest Eclipse:					
	G ₀	10:22:12.1	65°39.2'N	072°01.5'E	072°17.9'E
Circumstances at Greatest Eclipse:					
	Sun's Altitude = 33.5°		Path Width = 236.9 km		
	Sun's Azimuth = 235.2°		Central Duration = 02m27.1s		

† Ephemeris Longitude is the terrestrial dynamical longitude assuming a uniformly rotating Earth.

* True Longitude is calculated by correcting the Ephemeris Longitude for the non-uniform rotation of Earth.

$$(T.L. = E.L. + 1.002738 * \Delta T / 240, \text{ where } \Delta T(\text{in seconds}) = \text{TDT} - \text{UT})$$

Note: Longitude is measured positive to the East.

Because ΔT is not known in advance, the value used in the predictions is an extrapolation based on pre-2007 measurements. The actual value is expected to fall within ± 0.2 seconds of the estimated ΔT used here.