## Supplementary Figure

Figure 25e - Sky During Totality as Seen From Central Line at 04:15 UT

Total Solar Eclipse of 2009 Jul 22


The sky during totality as seen from the central line through the Phoenix Islands at 04:15 UT. The brightest planets visible during the total eclipse will be Mercury ( $m_{V}=-1.4$ ) and Saturn ( $m_{V}=+1.1$ ) located $9^{\circ}$ and $41^{\circ}$ east of the Sun, respectively. Bright stars, which might also be visible, include Procyon ( $\mathrm{m}_{\mathrm{v}}=+0.38$ ), Regulus ( $\mathrm{m}_{\mathrm{v}}=+1.36$ ), and Arcturus ( $\mathrm{m}_{\mathrm{v}}=-0.05$ ).

The geocentric ephemeris below [using Bretagnon and Simon, 1986] gives the apparent positions of the naked eye planets during the eclipse. Delta is the distance of the planet from Earth (A.U.'s), App. Mag. is the apparent visual magnitude of the planet, and Solar Elong gives the elongation or angle between the Sun and planet.

| Ephemeri | 009 Jul 22 | 01:30 UT |  | Equinox $=$ Mean Date |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Planet | RA | Declination | Delta | App. Mag. | Apparent Diameter arc-sec | Phase | Solar Elong - |
| Sun | 08 h 06 m 13 s | +20¹6'35" | 1. 01603 | -26.7 | 1889.0 | - | - |
| Moon | 08h 03 m 41 s | +20³2'23" | 0.00239 | - | 2005.4 | - | - |
| Mercury | 08h45m08s | +19*54'46" | 1.31901 | -1.4 | 5.1 | 0.95 | 9.1E |
| Venus | 05h11m09s | +2051'31" | 1.06004 | -3.9 | 15.7 | 0.70 | 40.9W |
| Mars | 04 h 20 m 45 s | +21年3'01" | 1.80846 | 1.1 | 5.2 | 0.91 | 52.5 W |
| Jupiter | 21 h 50 m 24 s | -14*09'22" | 4.11192 | -2.8 | 47.9 | 1.00 | 154.4W |
| Saturn | 11h20m17s | +06 ${ }^{\circ} 7^{\prime \prime} 08^{\prime \prime}$ | 10.06221 | 1.1 | 16.5 | 1.00 | 49.0E |

