**Supplementary Figure**

**Figure 25B - Sky During Totality as Seen From Central Line at 00:55 UT**

*(for Central India)*

**Total Solar Eclipse of 2009 Jul 22**

- **2009 Jul 22**
  - GMT = 00.55
  - Local = 06:25
  - LST = 02:22

- **Central Line 00:55 UT**
  - Lat = 24°22'N
  - Long = 081°53'E
  - Zone = 5.5 hours

The sky during totality as seen from the central line in India at 00:55 UT. The brightest planets visible during the total eclipse will be Mercury (mₜ=1.4) and Venus (mₜ=3.9) located 9° east and 41° west of the Sun, respectively. Mars (mₜ=+1.1) will be more difficult to spot just west of Venus. Finally, Jupiter (mₜ=−2.8) shines brightly low in the west. Bright stars, which might also be visible, include Procyon (mₜ=+0.38), Sirius (mₜ=−1.44), Betelgeuse (mₜ=+0.5v), Rigel (mₜ=+0.12) and Capella (mₜ=+0.08).

The geocentric ephemeris below [using Bessel and Simon, 1861] gives the apparent positions of the naked eye planets during the eclipse. **Δ** is the distance of the planet from Earth (Å.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.

**Ephemeris: 2009 Jul 22 01:30 UT**

<table>
<thead>
<tr>
<th>Planet</th>
<th>RA</th>
<th>Declination</th>
<th>Delta</th>
<th>App. Mag.</th>
<th>Apparent Diameter</th>
<th>Phase</th>
<th>Solar Elong</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sun</td>
<td>08h06m13s</td>
<td>+20°16'35&quot;</td>
<td>1.01603</td>
<td>-26.7</td>
<td>1889.0</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Moon</td>
<td>08h03m41s</td>
<td>+20°32'23&quot;</td>
<td>0.00239</td>
<td>-</td>
<td>2005.4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mercury</td>
<td>08h45m08s</td>
<td>+19°54'46&quot;</td>
<td>1.31901</td>
<td>-1.4</td>
<td>5.1</td>
<td>0.95</td>
<td>9.1E</td>
</tr>
<tr>
<td>Venus</td>
<td>05h11m09s</td>
<td>+20°51'31&quot;</td>
<td>1.06004</td>
<td>-3.9</td>
<td>15.7</td>
<td>0.70</td>
<td>40.9W</td>
</tr>
<tr>
<td>Mars</td>
<td>04h20m45s</td>
<td>+21°03'01&quot;</td>
<td>1.80846</td>
<td>1.1</td>
<td>5.2</td>
<td>0.91</td>
<td>52.5W</td>
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<tr>
<td>Jupiter</td>
<td>21h50m24s</td>
<td>-14°09'22&quot;</td>
<td>4.11192</td>
<td>-2.8</td>
<td>47.9</td>
<td>1.00</td>
<td>154.4W</td>
</tr>
<tr>
<td>Saturn</td>
<td>11h20m17s</td>
<td>+06°27'08&quot;</td>
<td>10.06221</td>
<td>1.1</td>
<td>16.5</td>
<td>1.00</td>
<td>49.0E</td>
</tr>
</tbody>
</table>

Mag Limit = 2.50

Supplementary figure to: NASA 2009 Eclipse Bulletin (F. Espenak & J. Anderson)