

# APPENDIX D |

## ASTRONOMICAL DATA

| Celestial Object | Mean Distance from Sun (million km) | Period of Revolution (d = days) (y = years) | Period of Rotation at Equator | Eccentricity of Orbit |
|------------------|-------------------------------------|---------------------------------------------|-------------------------------|-----------------------|
| Sun              | –                                   | –                                           | 27 d                          | –                     |
| Mercury          | 57.9                                | 88 d                                        | 59 d                          | 0.206                 |
| Venus            | 108.2                               | 224.7 d                                     | 243 d                         | 0.007                 |
| Earth            | 149.6                               | 365.26 d                                    | 23 h 56 min 4 s               | 0.017                 |
| Mars             | 227.9                               | 687 d                                       | 24 h 37 min 23 s              | 0.093                 |
| Jupiter          | 778.4                               | 11.9 y                                      | 9 h 50 min 30 s               | 0.048                 |
| Saturn           | 1426.7                              | 29.5 y                                      | 10 h 14 min                   | 0.054                 |
| Uranus           | 2871.0                              | 84.0 y                                      | 17 h 14 min                   | 0.047                 |
| Neptune          | 4498.3                              | 164.8 y                                     | 16 h                          | 0.009                 |
| Earth's Moon     | 149.6 (0.386 from Earth)            | 27.3 d                                      | 27.3 d                        | 0.055                 |
| Celestial Object | Equatorial Diameter (km)            | Mass (Earth = 1)                            | Density (g/cm <sup>3</sup> )  |                       |
| Sun              | 1,392,000                           | 333,000.00                                  | 1.4                           |                       |
| Mercury          | 4879                                | 0.06                                        | 5.4                           |                       |
| Venus            | 12,104                              | 0.82                                        | 5.2                           |                       |
| Earth            | 12,756                              | 1.00                                        | 5.5                           |                       |
| Mars             | 6794                                | 0.11                                        | 3.9                           |                       |
| Jupiter          | 142,984                             | 317.83                                      | 1.3                           |                       |
| Saturn           | 120,536                             | 95.16                                       | 0.7                           |                       |
| Uranus           | 51,118                              | 14.54                                       | 1.3                           |                       |
| Neptune          | 49,528                              | 17.15                                       | 1.6                           |                       |
| Earth's Moon     | 3476                                | 0.01                                        | 3.3                           |                       |

**Table D1 Astronomical Data**

### Other Data:

Mass of Earth:  $5.97 \times 10^{24}$  kg

Mass of the Moon:  $7.36 \times 10^{22}$  kg

Mass of the Sun:  $1.99 \times 10^{30}$  kg

