

EXPLANATION OF TABLE OF PLANET VIEWING TIMES

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The table is specific for an observer at the Hidden Valley Observatory.

The dates and times are given in Mountain Standard Time (MST), but if daylight savings time is in effect on the tabular date an asterisk is placed after the day-of-week name, and you may add one hour to obtain MDT if desired. The date listed is that for the day on which nighttime viewing begins.

The time labeled “Dusk (E)” is for the end of civil twilight (sun six degrees below the horizon) on the listed date. A planet, even if above the horizon, might not be visible at dusk or dawn if it is too faint and you aren’t using a telescope or binoculars.

The time labeled “Midnight (m)” is the clock time (MST) when local solar time is midnight. This is the time when the night is half spent.

The time labeled “Dawn (M)” is the time, on the next morning, when civil twilight begins. A planet, even if above the horizon, might not be visible to the unaided eye if it is too faint and in the eastern sky.

The time labeled “Sidereal (s)” is the apparent local sidereal time at HVO at the middle of the night. If you have a star chart this will tell you where to look on the chart for stars visible as of the middle of the night. E.g. if the time listed is 6:30, then stars shown at a Right Ascension of 6h 30m will be due south.

The percent of the Moon’s disk that is illuminated is shown under “Pct. Lunar Illum.”.

The elevation of the center of the Moon is shown in degrees at times E, m, and M – if the elevation above the horizon is greater than zero.

For the brighter planets (Mercury, Venus, Mars, Jupiter, and Saturn) the planet’s brightness (magnitude) is shown and its elevation, if at least 3 degrees, at times E, m, and M. For Mars, Jupiter, and Saturn the planet’s elevation is shown at the time of transit (T) if this occurs during the “night”. Note: the time of transit is not listed in this table.

Finally, the number of planets supposedly visible at times E, m, and M are listed as “#E”, “#m”, and “#M” respectively.