

**2010 — Astronomically Handy Sky Calendar — 2010**  
**SKY Phenomena Calendar FOR time zone MST and NO DST (Arizona, USA)**

<p><b>January 2010</b>  <b>HIGHLIGHT: MARS</b> reaches Opposition            01 Fr New Year's Day (Holiday)            03 Su Mars 7° north of Moon, 0500 hrs. Quadrantid Meteors Pk at 1200 hrs MST (1900 UT); Unfavorable year.            06 We Saturn 8° north of Moon, 1200 hrs.            07 Th <b>f</b> Last Quarter Moon 0339 hrs.            15 Fr ~ <b>New Moon 0011 hrs.</b>            Annular solar eclipse-NOT visible in US            23 Sa , First Quarter Moon 0353 hrs.            27 We Mars closest approach, 5 Lt. minutes, Angular size = 14.1" (arc seconds)            29 Fr Mars at opposition, 1300 hrs.            • Full Moon 2318 hrs. (largest of 2010)            30 Sa Mars 7° north of Moon, 0100 hrs.</p>	<p><b>February 2010</b>  <b>HIGHLIGHT: Minor Planet (4) Vesta</b>            02 Tu Zodiacal Light in W. next 2 wks after evening twilight            05 Fr <b>f</b> Last Quarter Moon 0448 hrs.            06 Sa Mars 3° north of Beehive (M44) 1900hrs.            08 Mo Alpha Centaurid meteors Pk 2200hrs., favorable year            13 Sa ~ <b>New Moon 1951 hrs</b>            18 Th (4) Vesta at opposition, mag. 6.2, in Leo, diameter=320 mi.,            21 Su , First Quarter Moon 1742 hrs            25 Th Mars 5° north of Moon, 2200h.            28 Su • Full Moon 0938 hrs            Jupiter in conjunction with Sun</p>	<p><b>March 2010</b>  <b>HIGHLIGHT: SATURN</b> reaches Opposition  <b>PARTICIPATE IN A MESSIER MARATHON 2010!</b>            03 We Zodiacal Light in W. next 2 wks after evening twilight            07 Su <b>f</b> Last Quarter Moon 0842 hrs.            13 Sa Primary wkend for M. Marathon            15 Mo ~ <b>New Moon 1401 hrs</b>            20 Sa Vernal Equinox; 1032 hrs. Secondary wkend for M. Marathon            21 Su Saturn at opposition 1800 hrs., size: 19.6", mag. +0.5; rings inclined 3.2° towards Earth            23 Tu , First Quarter Moon 0400 hrs            29 Mo Saturn 8° north of Moon, 1100 hrs.            • Full Moon 1925 hrs.</p>
<p><b>April 2010</b>  <b>HIGHLIGHT: Lyrid Meteor shower</b>            04 Su Dbl. Shadow Tr., Jupiter, 0428h. Easter Sunday            06 Tu <b>f</b> Last Quarter Moon 0237 hrs.            08 Th Mercury— evening best for 2010            14 We ~ <b>New Moon 0529 hrs</b>            21 We , First Quarter Moon 1120 hrs.            22 Th Lyrid Meteors Pk. 1000 hrs. Favorable after Moon set            24 Sa ASTRONOMY DAY—Promote IT!            25 Su Saturn 8° north of Moon            28 We • Full Moon 0518 hrs.</p>	<p><b>May 2010</b>  <b>HIGHLIGHT: Saturn's Rings fade</b>            05 We <b>f</b> Last Quarter Moon 2115 hrs. η-Aquarid Meteors; Pk at 2400hrs. NOT favorable            13 Th ~ <b>New Moon 1804 hrs</b>            20 Th , First Quarter Moon 1643 hrs            22 Sa Saturn 8° north of Moon, 2200 hrs.            26 We Saturn's rings close to 1.7° from edge-on; planet mag. down to 1.0, size 18"            27 Th • Full Moon 1607 hrs</p>	<p><b>June 2010</b>  <b>HIGHLIGHT: Mars / Regulus conjunction</b>            04 Fr <b>f</b> Last Quarter Moon. 1513 hrs.            06 Su Mars 0.9° north of Regulus (Leo)            08 Tu Comet 215P/NEAT at perihelion, 3.2 AU (astronomical unit)            12 Sa ~ <b>New Moon, 0415 hrs.</b>            18 Fr , First Quarter Moon 2129 hrs. (1) Ceres at opposition; mag. 7.2            21 Mo Summer Solstice 0428 hrs.            25 Fr Pluto at opposition; mag. 13.9            26 Sa • Full Moon 0430 hrs.</p>
<p><b>July 2010</b>  <b>HIGHLIGHT: Summer Milky Way</b>            04 Su <b>f</b> Last Quarter Moon 0735 hrs.            07 to 12 Conjunction: Venus overtakes and passes Regulus in west— view daily            11 Su ~ <b>New Moon 1240 hrs.</b>            Total Solar Eclipse: Not visible in U.S.— mostly across S. Pacific            18 Su , First Quarter Moon 0311 hrs.            25 Su • Full Moon 1836 hrs.            29 Th S. δ Aquarid Meteors Pk 0200hrs.; Unfavorable year—moonlight; on occasion, some fireball activity.</p>	<p><b>August 2010</b>  <b>HIGHLIGHT: Perseid Meteor shower</b>            02 Mo <b>f</b> Last Quarter Moon 2159 hrs.            09 Mo ~ <b>New Moon 2008 hrs.</b>            12 Th Perseid Meteors Pk. 1700hrs; Very favorable year; No Moon            13 Fr Dbl.Shadow Tr., Jupiter,0312h            16 Mo , First Quarter Moon 1114 hrs.            20 Fr Neptune opposition, 0300h. Dbl.Shadow Tr., Jupiter,0506h            24 Tu • Full Moon 1005; Small            Celestial grouping first half of August: Venus, Mars, Saturn, star Spica —west</p>	<p><b>September 2010</b>  <b>HIGHLIGHT: Jupiter</b> reaches Opposition            01 We , Last Quarter Moon 1022 hrs.            05 Su Zodiacal Light in E. for next 2 wks before morning twilight            08 We ~ <b>New Moon 0330 hrs.</b>            14 Tu , First Quarter Moon 2250 hrs.            21 Tu Jupiter at opposition, 0500 hrs.; size of 49.8" (arc-seconds)            Uranus at opposition, 1000 hrs.            22 We Jupiter 0.9° S. of Uranus, 1200 hrs.            22 We Equinox (Autumnal), 2009 hrs.            23 Th • Full Moon 0217 hrs.            Venus max. brightness in west(-4.9)            30 Th , Last Quarter Moon 2052 hrs</p>
<p><b>October 2010</b>  <b>HIGHLIGHT: Comet 103P/Hartley</b>            05 Tu Zodiacal Lt. in E. for 2 wks;morning            07 Th ~ <b>New Moon 1144 hrs.</b>            08 Fr Draconid meteors Pk., 0600hrs; very favorable in 2010            14 Th , First Quarter Moon 1427hrs.            21 Th Orionid Meteors – Unfavorable year            22 Fr • Full Moon 1836 hrs.            23 Sa Dbl.Shadow Tr., Jupiter, 1841 hrs.            28 Th Comet 103P Perihelion; naked eye?            30 Sa <b>f</b> Last Quarter Moon 0546 hrs. Dbl.Shadow Tr., Jupiter, 2130 hrs.</p>	<p><b>November 2010</b>  <b>HIGHLIGHT: LEONID Meteors</b>            05 Fr S.Taurids Meteors Pk 0900hrs ~ <b>New Moon 2152 hrs.</b>            07 Su Dbl.Shadow Tr., Jupiter,0113h            12 Fr N.Taurids Meteors Pk 0900h.            13 Sa First Quarter Moon 0938 hrs            17 We Leonid MeteorsPk.1500h. Favorable after Moonset on 18th            21 Su • Full Moon 1027 hrs. Alpha Monocerotids Meteors            28 Su <b>f</b> Last Quarter Moon 1336 hrs</p>	<p><b>December 2010</b>  <b>HIGHLIGHT: Total Lunar Eclipse</b>            04 Sa Venus max. brightness in east (-4.9)            05 Su ~ <b>New Moon 1036 hrs.</b>            13 Mo , First Quarter Moon 0700 hrs.            14 Tu Geminid Meteors Pk. 0400 hrs.; Favorable for 2010            21 Tu • Full Moon 0113 hrs; Solstice (Winter begins) 1638 hrs. Lunar Eclipse (2229hrs– 0404hrs)            22 We Ursid Meteors Pk.1200hrs.; not good            27 Mo <b>f</b> Last Quarter Moon 2118 hrs.</p>

\*Times/ Dates= Mountain Standard Time, NO DST (UT-7hrs); updated at [www.astronomyyear2009.com](http://www.astronomyyear2009.com); Doug Snyder

Abbr: Tr=transit; Pk=Peak; Merc=Mercury; E.=East; W.=West; S.=South; N=North; J.=Jupiter; V.=Venus; Sat.=Saturn  
 elong.=elongation; Pen.= Penumbral; hrs., h.= hours (24 hour system); wks. = weeks; Lt.=Light. Ver.2010V1.0