

# Sun and Moon Data for One Day

## U.S. Naval Observatory Astronomical Applications Department

Accident Site (Longitude W111° 9', Latitude N33° 25')

Tuesday, December 15, 2015

Universal Time - 7h

<b>Sun</b>	
Begin civil twilight	06:54
Sunrise	07:21
Sun transit	12:20
Sunset	17:18
End civil twilight	17:46
<b>Moon</b>	
Moonrise	10:34
Moon transit	16:11
Moonset	21:52

Closest Primary Moon Phase: First Quarter on December 18, 2015 at 08:14

Phase of the Moon on December 15, 2015: Waxing Crescent with 20% of the Moon's visible disk illuminated.

# NOAA Solar Calculator

Find Sunrise, Sunset, Solar Noon and Solar Position for Any Place on Earth

Show:  World Cities  U.S. Cities  GMD Observ.'s  GMD Data Sites  SurfRad

Click one of the small pins near (and in the same time zone as) your desired location. Use the control on the left side of the map to zoom in or out. Place the large pin in the exact desired location. You can use the Save button to have your computer remember the current location for next time. Check the DST check box if Daylight Saving Time is in effect for your site.



Location:

<b>Latitude:</b>	<b>Longitude:</b>	<b>Time Zone:</b>
<input type="text" value="33.431166"/>	<input type="text" value="-111.15716"/>	<input type="text" value="-7"/>
<input type="checkbox"/> DST?		
<input type="button" value="Save Location"/>		

Date:

<b>Day:</b>	<b>Month:</b>	<b>Year:</b>		
<input type="text" value="15"/>	<input type="text" value="Dec"/>	<input type="text" value="2015"/>		
<b>Local Time:</b>				
<input type="text" value="05"/>	<input type="text" value="23"/>	<input type="text" value="00"/>	<input checked="" type="checkbox"/> PM	<input type="button" value="Use Current Time"/>

Result

<b>Equation of Time (minutes):</b>	<b>Solar Declination (in°):</b>	<b>Apparent Sunrise (hh:mm):</b>	<b>Solar Noon (hh:mm:ss):</b>	<b>Apparent Sunset (hh:mm):</b>	<b>Az/EI (in °) at Local Time:</b>
<input type="text" value="4.75"/>	<input type="text" value="-23.28"/>	<input type="text" value="07:21"/>	<input type="text" value="12:19:47"/>	<input type="text" value="17:18"/>	<input type="text" value="242.97"/> <input type="text" value="-1.49"/>
		<input checked="" type="checkbox"/> Show Sunrise		<input checked="" type="checkbox"/> Show Sunset	<input checked="" type="checkbox"/> Show Azimuth