

Location:

Lat: 38.7151 N Long: 77.1811 W

Time from UTC: -4

Date	Sun		C Twi		N Twi		A Twi		Moon		Moon Illum
	R	S	B	E	B	E	B	E	R	S	
20241001	0705	1850	0638	1917	0608	1948	0537	2019	0555	1826	2.3%
20241002	0706	1849	0639	1916	0609	1947	0538	2017	0653	1846	0.3%
20241003	0707	1847	0640	1914	0609	1945	0539	2015	0752	1907	0.1%
20241004	0708	1846	0641	1913	0610	1943	0540	2014	0851	1930	1.7%
20241005	0709	1844	0642	1911	0611	1942	0541	2012	0952	1956	5.1%
20241006	0710	1843	0643	1910	0612	1940	0542	2011	1055	2027	10.1%
20241007	0711	1841	0644	1908	0613	1939	0543	2009	1159	2106	16.7%
20241008	0712	1840	0645	1907	0614	1937	0544	2008	1301	2153	24.6%
20241009	0713	1838	0646	1905	0615	1936	0545	2006	1358	2250	33.7%
20241010	0714	1837	0647	1904	0616	1935	0546	2005	1449	2356	43.7%
20241011	0715	1835	0648	1902	0617	1933	0547	2004	1532	----	54.2%
20241012	0716	1834	0649	1901	0618	1932	0547	2002	1608	0107	64.9%
20241013	0717	1832	0650	1859	0619	1930	0548	2001	1639	0221	75.2%
20241014	0718	1831	0651	1858	0620	1929	0549	1959	1707	0337	84.5%
20241015	0719	1829	0652	1856	0621	1927	0550	1958	1734	0452	92.1%
20241016	0720	1828	0653	1855	0622	1926	0551	1957	1801	0609	97.4%
20241017	0721	1827	0654	1854	0623	1925	0552	1955	1829	0727	99.8%
20241018	0722	1825	0655	1852	0623	1923	0553	1954	1903	0846	99.2%
20241019	0723	1824	0656	1851	0624	1922	0554	1953	1943	1006	95.7%
20241020	0724	1822	0657	1850	0625	1921	0555	1952	2031	1123	89.6%
20241021	0725	1821	0658	1848	0626	1920	0556	1950	2129	1232	81.6%
20241022	0726	1820	0659	1847	0627	1918	0557	1949	2232	1331	72.2%
20241023	0727	1818	0700	1846	0628	1917	0558	1948	2339	1418	62.1%
20241024	0728	1817	0701	1844	0629	1916	0559	1947	----	1455	51.8%
20241025	0729	1816	0702	1843	0630	1915	0600	1946	0044	1526	41.8%
20241026	0730	1815	0703	1842	0631	1913	0601	1944	0148	1550	32.3%
20241027	0731	1813	0704	1841	0632	1912	0601	1943	0249	1612	23.7%
20241028	0732	1812	0705	1840	0633	1911	0602	1942	0349	1632	16.1%
20241029	0733	1811	0706	1839	0634	1910	0603	1941	0446	1652	9.8%
20241030	0734	1810	0707	1837	0635	1909	0604	1940	0545	1712	4.9%
20241031	0735	1809	0708	1836	0636	1908	0605	1939	0644	1735	1.7%

Key

.... means sun or moon below horizon all day or
twilight never begins

**** means sun or moon above horizon all day
or twilight never ends

---- in rise column means no rise that day and
in set column - no set that day

R - Rise

S - Set

B - Beginning

E - Ending

C Twi - Civil Twilight: Sun is 6 deg below the horizon

N Twi - Nautical Twilight: Sun is 12 deg below the horizon

A Twi - Astonomical Twilight: Sun is 18 deg below the horizon

Moon Illumination is valid 00:01L for that day.