

Night Highlights for 2018 by Bob Doyle, Emeritus, Frostburg State University, email rdoyle@frostburg.edu

MOON – Earth’s companion both orbits Earth and rotates in 27.32 Earth days, so 1 side of the moon always faces Earth (while the other side is turned away from us). Moon’s cycle of lighted shapes (phases) lasts 29.53 E. days, as phases also depend on direction of sun (appears to move about 30 degr. eastward each month along zodiac). The moon is seen about 13 days growing in the evening sky from a slender crescent () to Full, followed by an equal time shrinking (mainly seen in the a.m. sky) and then 3 days hidden in the sun’s glare.

Key Moon Shapes – **N**, New Moon (start of lunar phase cycle), **D** – ½ full moon in evening (best for craters and ridge viewing), **O** – full moon, **M** – ½ full morning moon. Full moon dates when moon is fullest in evening.
// Jan. **O** – 1, **M** – 8, **N** – 17, **D** – 24, **O** – 31 // Feb. **M** – 7, **N** – 15, **D** – 23 // Mar. **O** – 1, **M** – 9, **N** – 17, **D** – 24, **O** – 31 //
// Apr. **M** – 8, **N** – 15, **D** – 22, **O** – 29 // May **M** – 07, **N** – 15, **D** – 22, **O** – 29 // Jun. **M** – 6, **N** – 13, **D** – 20, **O** – 27 //
// Jul. **M** – 6, **N** – 13, **D** – 19, **O** – 27 // Aug. **M** – 4, **N** – 11, **D** – 18, **O** – 26 // Sep. **M** – 3, **N** – 9, **D** – 16, **O** – 24 //
// Oct. **M** – 2, **N** – 9, **D** – 16, **O** – 24, **M** – 31 // Nov. **N** – 7, **D** – 15, **O** – 22, **M** – 30 // Dec. **N** – 7, **D** – 15, **O** – 22, **M** – 29 //

2018 Planet Visibility – Dawn means hour before sunrise, Dusk means hour after sunset

Mercury always close to sun, rapid motion cause it to be mostly hidden in sun’s glare. In 2018, Mercury seen in mid March W. dusk, late Apr./early May in E. dawn, late Aug. in E dawn & mid Dec. E dawn

Venus starts her W. dusk visibility in March, glorious in late spring months, drops lower in summer months, too close to the sun to be seen in October and November, returns low in E. dawn as year ends: **Mars** seen in E. dawn sky in early 2018, becomes visible in midnight sky in late spring months, is closest and brightest in late July, fades as it stays in view through the fall months. **Jupiter** starts 2018 in E. dawn, creeping towards the late evening sky, in late spring is closest to Earth, rising in early evening, seen all through the summer months, is lost in the sun’s glare in the fall months, seen low in E. dawn in December. **Saturn** lost in sun’s glare in early months of 2018, seen low in E. dawn in spring, well seen on summer evenings, hides in sun’s glare during late in fall

Moon-Planet or Planet-Planet Line Ups (moon & bright planets (* of light) close in sky), Dawn, Dusk or Evening
Jupiter-Mars E. Dawn Jan.7, Moon-Jupiter Dawn Jan 11, Moon-Jupiter Dawn, Feb.7, Moon-Mars Dawn Feb.9
Moon-Saturn Dawn Feb.11, Moon-Jupiter Dawn, Mar. 7, Moon-Mars Dawn, Mar.9, Mars-Saturn E. Dawn Apr 2,
Moon-Venus Dusk, Apr.17, Moon-Mars, Dawn May 6, Moon-Venus Dusk May 17, Moon-Jupiter Even. May 27,
Moon-Venus Dusk, June 16, Moon-Venus Dusk, July 15, Moon-Jupiter Even July 20, Moon-Venus, Dusk, Aug 14,
Moon-Saturn Dusk, Aug.20, Moon-Jupiter, Even. Sept 13, Moon-Saturn Even Sept 17, Moon-Mars Even. Sept 19,
Moon-Jupiter, Dusk, Oct 11, Moon-Saturn, Dusk Oct.14, Moon-Saturn Dusk Nov 11, Moon-Mars Dusk. Nov 15,
Moon-Venus Dawn Dec 3, Moon-Mars Even Dec 14

Sun’s position among zodiac: (Uses sun’s known positions & star group boundaries. Astrol. dates off by weeks)
Dec. 18 – Jan. 18 in Sagittarius,/ Jan. 19 – Feb. 21 in Capricornus,/ Feb. 22 – Mar. 22 in Aquarius,/ Mar.23 – Apr.17 in Pisces,/ Apr. 18 – May 12 in Aries,/ May 13 – June 20 in Taurus/, June 21 – July 19 in Gemini,/ July 20 – Aug. 9 in Cancer/, Aug. 10 – Sept. 15 in Leo,/ Sept.16 – Oct. 30 in Virgo,/ Oct. 31 – Nov.22 in Libra, / Nov.23 – Nov. 28 in Scorpius,/ Nov. 29 – Dec. 17 in Ophiuchus (Serpent Bearer)/
The star group that the sun was in at your birth will be visible in evening sky 3 to 5 months before birthday.

Best Evening Star Groups and Brightest Stars in each of the 4 quarters of the year

January, February & March: Star Groups: Orion, Taurus, Gemini; Bright stars: Sirius, Rigel, Aldebaran, Capella
April, May & June: Star Groups: Leo, Virgo, Gemini, Big Dipper; Bright stars: Arcturus, Regulus, Spica
July, August & September: Star Groups: Summer Triangle, Big Dipper; Bright stars: Vega, Arcturus, Altair
October, November, December: Star Groups: Sum. Triangle, Great Square, Cassiopeia; Bright stars: Vega, Capella

Frostburg State Planetarium has free public programs on alternate Wednesdays in February-April and in September-November. No public programs in January, May – August and December. On the web, go to www.frostburg.edu/planetarium/MLC for directions, dates, showtimes and feature titles.

Best Monthly Evening Sky Chart is at www.skymaps.com/downloads.html

2018 Sunday Sunrise & Sunset Times for Cumberland area & 6 Regional Cities for clock times

Date	Cumberland	Pittsburgh	Morgantown	Johnstown	Hagerstown	Harrisburg	Baltimore	Date
1/7	7:36 5:06	7:43 5:09	7:43 5:11	7:39 5:06	7:32 5:02	7:30 4:57	7:26 4:59	1/7
1/14	7:35 5:13	7:42 5:16	7:39 5:18	7:37 5:12	7:30 5:09	7:29 5:04	7:26 5:06	1/14
1/21	7:31 5:21	7:38 5:24	7:36 5:26	7: 34 5:20	7:27 5:17	7:25 5:12	7:22 5:13	1/21
1/28	7:27 5:29	7:33 5:32	7:31 5:34	7:29 5:28	7:22 5:25	7:21 5:20	7:17 5:21	1/28
2/4	7:20 5:37	7:27 5:41	7:25 5:43	7:22 5:37	7:16 5:33	7:14 5:29	7:11 5:29	2/4
2/11	7:13 5:46	7:19 5:49	7:18 5:50	7:15 5:45	7:09 5:42	7:06 5:37	7:04 5:38	2/11
2/18	7:04 5:54	7:10 5:58	7:09 5:59	7:08 5:54	7:00 5:50	6:57 5:45	6:55 5:46	2/18
2/25	6:55 6:02	7:00 6:06	6:59 6:07	6:56 6:02	6:50 5:58	6:48 5:54	6:46 5:54	2/25
3/4	6:44 6:09	6:50 6:14	6:49 6:14	6:46 6:10	6:40 6:05	6:37 6:01	6:35 6:04	3/4
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