January 2014 Astronomy Calendar by Dave Mitsky
Some information supplied and/or added by Tony Donnangelo

All times are Eastern Standard Time (-5 hrs. U.T.)

Events listed are based on a location of 40°N in the Eastern US and may not be visible in all areas.

Concerning moderate and minor meteor shower activity:
Do not have any high expectations. This general information is to account for why you might be seeing a few more than normal meteors during your observing session.

Lunar light rays may occur prior to or after the predicted time. Initial observations might have occurred after the ray's inception or continued after the observer's session. Rays may last a very short time or for many hours. Obtain further information; send reports (including non-occurrences and miss-calculations), photos, and observations of new rays to:
The Robinson Lunar Observatory: http://www.lunar-occultations.com/rlo/rlondx.htm.

1/1 New Moon (lunation 1126) occurs at 5:14 a.m.
1/1 Pluto is in conjunction with the Sun at 2:00 p.m.
1/1 The Moon is at perigee, subtending 33 arc minutes from a distance of 356,923 kilometers (221,781 miles), at 3:59 p.m.
1/2 Venus is 2° south of the Moon at 7:00 a.m.
1/2 Mars is at aphelion at 7:00 p.m.
1/3 Quadrantids meteor shower (moderate activity - 40 to 120 or per hour) peaks at 3:00 p.m. Duration is from 12/28 through 1/7. The radiant is in Draco. Duration is from 12/28 through 1/7. Observing and History: http://meteorshowersonline.com/quadrantids.html
1/4 The latest sunrise of 2014 at latitude 40° north occurs today.
1/4 The Earth is at perihelion (147,104,781 kilometers or 91,406,673 miles distant from the Sun) at 7:00 a.m.
1/4 Neptune is 5° south of the Moon at 9:00 p.m.
1/5 Jupiter (magnitude -2.7, apparent size 46.8") is at opposition at 4:00 p.m.
1/5 223rd Meeting of the American Astronomical Society (AAS) being held through the 9th in National Harbor, Maryland.
1/5 Gamma Velids meteor shower (minor activity) peaks from 5th through 8th. Duration is from 1st through 17th. Observing and History: http://meteorshowersonline.com/showers/gamma_velids.html
1/7 The latest onset of morning twilight of 2014 at latitude 40° north occurs today.
1/7 Mercury passes 6.5° from Venus.
1/7 Uranus is 3° south of the Moon at 8:00 a.m.
1/7 First Quarter Moon occurs at 10:39 p.m.
1/7 Abenezra P (sunrise) lunar light ray predicted to occur at 7:00 p.m.
1/7 Hypatia (sunrise) lunar light ray predicted to occur at 7:10 p.m.
1/7 Abenezra C (sunrise) lunar light ray predicted to occur at 8:25 p.m.
1/7 Stöfler (sunrise) lunar light ray predicted to occur at 8:30 p.m.
1/7 Saunder (sunrise) lunar light ray predicted to occur at 10:22 p.m.
1/7 Hind (SE of) (sunrise) lunar light ray predicted to occur at 11:06 p.m.

1/8 Asteroid (2) Pallas is stationary at 4:00 a.m.
1/8 The Lunar X (the Purbach or Werner Cross), an X-shaped illumination effect involving various rims and ridges between the craters La Caille, Blanchinus, and Purbach, is predicted to begin at 10:59 a.m.
1/8 Pallas (sunrise) lunar light ray predicted to occur at 7:25 p.m.
1/8 Rho Geminids meteor shower (minor activity) peaks 8/9. Duration is 12/28 through 1/28. Observing and History: http://meteorshowersonline.com/showers/rho_geminids.html
1/9 Fra Mauro HA (sunrise) lunar light ray predicted to occur at 10:32 p.m.
1/9 Guericke (sunrise) lunar light ray predicted to occur at 11:02 p.m.
1/10 Renart (sunrise) lunar light ray predicted to occur at 1:45 a.m. Moonset at 2:34 a.m.
1/10 Bonpland (sunrise) lunar light ray predicted to occur at 2:07 a.m. Moonset at 2:34 a.m.
1/10 Lubiniesky E (sunrise) lunar light ray predicted to occur at 8:52 p.m.
1/10 Montes Riphaeus (sunrise) lunar light ray predicted to occur at 10:28 p.m.
1/10 Mercator (sunrise) lunar light ray predicted to occur at 11:24 p.m.
1/11 Mercury is at its greatest heliocentric latitude south today.
1/11 La Condamine (sunrise) lunar light ray predicted to occur at 12:09 a.m.
1/11 Philolaus (sunrise) lunar light ray predicted to occur at 1:19 a.m.
1/11 Sinus Iridum (sunrise) lunar light ray predicted to occur at 2:22 a.m.
1/11 Venus is in inferior conjunction at 7:00 a.m.
1/13 Schiller C (sunrise) lunar light ray predicted to occur at 2:33 a.m.
1/13 Lacroix G (sunrise) lunar light ray predicted to occur at 5:39 p.m. Sunset at 5:03 p.m.
1/13 January Draconids meteor shower (minor activity) peaks from 13th through 16th. Duration is from 10th through 24th. Observing and History: http://meteorshowersonline.com/showers/january_draconids.html
1/15 Jupiter is 5° north of the Moon at 1:00 a.m.
1/15 The Moon is at apogee, subtending 29 arc minutes from a distance of 406,532 kilometers (252,607 miles), at 8:53 p.m.
1/15 Full Moon (known as the Ice Moon, the Moon After Yule, the Old Moon, and the Wolf Moon), the smallest of the year, occurs at 11:52 p.m.
1/16 Eta Craterids meteor shower (minor activity) peaks 16/17. Duration is 11th through 22nd. Observing and History: http://meteorshowersonline.com/showers/eta_carinids.html
1/16 January Booteids meteor shower (minor activity) peaks from the 16th through 18th. Duration is from 9th to 18th. Observing and History: http://meteorshowersonline.com/showers/january_bootids.html
1/17 Delta Cancrids meteor shower (minor activity) peaks. Duration is from 12/14 through 2/14. Observing and History: http://meteorshowersonline.com/showers/delta_cancrids.html
1/17 Lame (sunset) lunar light ray predicted to occur at 10:03 p.m.
1/18 Crisium, Mare (sunset) lunar light ray predicted to occur at 10:35 p.m.
1/20 Alpha Hydrids meteor shower (minor activity) peaks 20/21. Duration is 15th through 30th. Observing and History: http://meteorshowersonline.com/showers/alpha_hydrids.html
1/21 Alexander (sunset) lunar light ray predicted to occur at 3:52 a.m.
1/21 Catherina (sunset) lunar light ray predicted to occur at 5:19 a.m.
1/21 Eta Carinids meteor shower (minor activity) peaks 21/22. Duration is 14th through 27th. Observing and History: http://meteorshowersonline.com/showers/eta_craterids.html
1/22 Curtius (sunset) lunar light ray predicted to occur at 1:33 a.m.
1/22 Lilius lunar light ray predicted to occur at 2:16 a.m.
1/22 Julius Caesar (sunset) lunar light ray predicted to occur at 2:27 a.m.

1/22 Calippus (sunset) lunar light ray predicted to occur at 5:50 a.m.

1/23 Mars is 4° north of the Moon at 1:00 a.m.
1/23 Walter (sunset) lunar light ray predicted to occur at 4:42 a.m.
1/23 The moon is 1.3° north of the first-magnitude star Spica (Alpha Virginis) at 5:00 a.m.
1/24 Venus is at perihelion today.
1/24 Last Quarter Moon occurs at 12:19 a.m.
1/24 The Curtiss Cross, an X-shaped illumination effect located between the craters Parry and Gambart, is predicted to begin at 12:28 p.m.
1/24 Canids meteor shower (minor activity) peaks 24/25. Duration is from the 13th to the 30th. Observing and History: http://meteorshowersonline.com/showers/canids.html
1/24 Alpha Leonids meteor shower (minor activity) peaks from 24th through 31st. Duration is from 1/13 through 2/13. Observing and History: http://meteorshowersonline.com/showers/alpha_leonids.html
1/25 Klaproth (sunset) lunar light ray predicted to occur at 2:12 a.m. Moonrise at 1:51 a.m.
1/25 Saturn is 0.6° north of the Moon, with an occultation visible from part of Antarctica, the far southern portion of South America, New Zealand, and French Polynesia, at 9:00 a.m.
1/28 Asteroid (18) Melpomene (magnitude 9.3) is at opposition at 3:00 a.m.
1/28 Mars is 5° north of Spica at 3:00 p.m.
1/28 Venus is 2° north of the Moon at 10:00 p.m.
1/29 20th Annual International Orange Blossom Special Star Party being held through Feb. 2 in Dade City, Florida.
1/30 Mercury is at the ascending node today.
1/30 The Moon is at perigee, subtending 33 arc minutes from a distance of 357,080 kilometers (221,879 miles), at 4:59 a.m.
1/30 New Moon (lunation 1127) occurs at 4:38 p.m.
1/30 Capricornids-Sagitariids meteor shower (daylight activity) peaks from 1/30 to 2/3. Duration is from 1/13 to 2/28. Observing and History: http://meteorshowersonline.com/showers/capricornids_sagittariids.html
1/31 Chinese New Year.
1/31 Mercury is at greatest eastern elongation (18.4°) at 5:00 a.m.
1/31 Venus is stationary at 2:00 p.m.

Johannes Hevelius (1611-1687) was born this month.

Galileo Galilei discovered Io, Europa, and Callisto on January 7, 1610. He discovered Ganymede on January 13, 1610. William Herschel discovered Titania and Oberon, two satellites of Uranus, on January 11, 1787. Giuseppe Piazzi discovered the first asteroid, 1 Ceres, on January 1, 1801.

The Quadrantid meteor shower peaks on the morning of January 3rd. The Moon won't interfere but the short-lived peak of the shower favors observers in eastern Asia this year. This shower can sometimes reach zenithal hourly rates of more than 100 meteors per hour. The radiant of the Quadrantids lies at the junction of the constellations of Boötes, Hercules, and Draco, in what was once called Quadrans Muralis. The near-Earth asteroid 2003 EH1, which may be an extinct comet, is believed to be the source of these meteors. Browse http://meteorshowersonline.com/quadrantids.html and http://www.imo.net/calendar/2014#qua for more on the Quadrantids.

Information on Iridium flares and passes of the ISS, the Tiangong-1, the X-37B, the HST, and other satellites can be found at http://www.heavens-above.com/

The Moon is 29.0 days old and is located in Aquarius on January 1st at 0:00 UT. Two New Moons occur this month. Large tides will occur on January 1st through January 4th and on January 30th and January 31st. The Moon is at its greatest declination north of +19.5 degrees on January 13th and its greatest declination south of -19.4 degrees on January 27th. Longitudinal libration is at a maximum of +7.8 degrees on January 7th and a minimum of -7.8 degrees on January 24th. Latitudinal libration is at a maximum of +6.6 degrees on January 16th and a minimum of -6.6 degrees on both January 3rd and January 30th. Visit http://saberdoesthestars.wordpress.com/2011/07/05/saber-does-the-stars/ for tips on spotting extreme crescent Moons. Times and dates for the lunar light rays predicted to occur this month are available at http://www.lunar-occultations.com/rlo/rays/rays.htm

The Sun is located in Sagittarius on January 1st.

Data (magnitude, apparent size, illumination, and distance from the Earth in astronomical units) for the planets and Pluto on January 1: Mercury (-1.3, 4.7", 100%, 1.43 a.u., Sagittarius), Venus (-4.4, 59.6", 4%, 0.28 a.u., Sagittarius), Mars (+0.8, 6.9", 90%, 1.36 a.u., Virgo), Jupiter (-2.7, 46.8", 100%, 4.21 a.u., Gemini), Saturn (+0.6, 15.9", 100%, 10.48 a.u., Libra), Uranus (+5.9, 3.5", 100%, 20.30 a.u. on January 16, Pisces), Neptune (+8.0, 2.2", 100%, 30.75 a.u. on January 16, Aquarius), and Pluto (+14.2, 0.1", 100% , 33.53 a.u. on January 16, Sagittarius).

During the evening, Mercury lies in the west, Venus in the southwest, Jupiter in the east, and Uranus and Neptune in the southwest. At midnight, Mars is the east and Jupiter in the southwest. Venus can be seen in the southeast, Mars and Saturn in the south, and Jupiter is in the northwest in the morning.

Mercury returns to the evening sky by mid-month, beginning one of its two best evening apparitions of the year for mid-northern latitude observers. An extremely thin waning crescent Moon is located five degrees north of the planet on January 31. The tiny planet reaches a greatest eastern elongation of 18 degrees on the final day of January. At that time, Mercury is 56% illuminated, shines at magnitude -0.7, and attains an altitude of 11 degrees in the west-southwestern sky one half-hour after the Sun sets.

Venus shines brighter than magnitude -4.0 throughout January. It is illuminated just 3% and spans a full arc minute in angular size at sunset on January 1st. Five days later, Venus is a mere 4 degrees above the horizon 30 minutes before sunset. It spans 62 arc seconds and is only 1% lit. The planet's evening apparition ends when it reaches inferior conjunction on January 11, one synodic period after the transit of June 2012. Venus is located five degrees north of the Sun at that time. The brightest planet then enters the morning sky, becoming visible again on January 18th. Venus is at perihelion on January 24. By the end of the month, Venus shrinks 10 arc seconds in apparent size but widens to a 12% illuminated crescent while shining at magnitude -4.8. Both Venus and Jupiter are their closest to the Earth this month.

Earth is 0.983 astronomical units distant from the Sun at perihelion on January 4th. On that date, it's about 3% (5.0 million kilometers or 3.1 million miles) closer to the Sun than at aphelion.

Mars grows to almost nine arc seconds in angular size and brightens to magnitude +0.3 by the end of the month. It is at both aphelion (249.3 million kilometers or 154.9 million miles from the Sun) and western quadrature on January 2nd. Mars can be found 1.4 degrees southeast of the third-magnitude binary star Porrima (Gamma Virginis) on the morning of January 1st and four degrees north of the Moon on the morning of January 23rd. The Red Planet's eastward motion places it five degrees north of the first-magnitude star Spica by January 31st.

Jupiter reaches opposition on January 5th. On that date, the largest planet subtends nearly 47 arc seconds, is 35 light minutes from the Earth, and is visible for the entire night. Click on http://freestarcharts.com/index.php/19-news-and-current-events/230-jupiter-reaches-opposition-on-january-5-2014 for further information. During January, Jupiter's disk shrinks in size by 1.1 arc seconds. The waxing gibbous Moon passes five degrees south of Jupiter on January 15th. Galilean satellite shadow transit events that are favorable for North American observers take place on the evenings of January 8th (Europa), January 13th (Io), and January 27th (Io). Browse http://skyandtelescope.com/observing/objects/planets/article_107_1.asp in order to determine transit times of Jupiter's central meridian by the Great Red Spot. Data on the Galilean satellites is available at http://skytonight.com/observing/objects/javascript/3307071.html#

At midmonth, Saturn's rings are inclined 22 degrees with respect to the Earth. The northern side of Saturn's rings is visible this year. The planet's disk subtends 16 arc seconds and its rings span 37 arc seconds. (The extent of Saturn's rings is 2.27 times its equatorial diameter.) Saturn is nearly occulted by the Moon for mid-northern hemisphere observers on the morning of January 25th. For information on the satellites of Saturn, browse http://www.skyandtelescope.com/observing/objects/javascript/3308506.html

Uranus sets at approximately 10:00 p.m. local time by month's end. The seventh planet lies about six degrees southwest of the fourth-magnitude star Delta Piscium in southern Pisces this month.

Neptune is located 3.4 degrees south-southeast of the fourth-magnitude star Theta Aquarii on January 4th. It lies within five arc minutes of a slightly brighter field star from January 10th to January 15th. Neptune is situated four degrees east of Mercury on January 31st.

Finder charts for Uranus and Neptune can be found at http://media.skyandtelescope.com/documents/Uranus-Neptune-2013.pdf and on page 50 of the October issue of *Sky & Telescope*. See http://www.curtrenz.com/uranep.html for additional information on the two outer planets.

The dwarf planet Pluto is in conjunction with the Sun on January 1st.

For more on the planets and how to locate them, browse http://www.nakedeyeplanets.com/

Asteroid 7 Iris shines at tenth magnitude as it travels northeastward through Pisces this month. It passes through the southern portion of the Circlet of Pisces asterism from the 14th through the 21. Asteroid 18 Melpomene (magnitude 9.3) reaches opposition on January 28th. Click on http://britastro.org/computing/ch/18_Melpomene_2013Dec28Feb28.html for a finder chart. Browse http://britastro.org/computing/charts_asteroid.html and http://asteroidoccultation.com/2014_01_si.htm respectively for information on asteroid oppositions and occultations taking place this month.

Comet C/2013 R1 (Lovejoy) dims to eighth magnitude as it heads southeastward into Ophiuchus. Surf http://freestarcharts.com/index.php/19-news-and-current-events/231-comet-lovejoy-c-2013-r1-a-january-2014-binocular-comet for a finder chart. Visit http://cometchasing.skyhound.com/ and http://www.curtrenz.com/comets for information on comets visible this month and in the near future.

A wealth of current information on solar system celestial bodies is posted at http://www.curtrenz.com/astronomical

Browse http://astrocast.tv/ for an informative video on astronomical events taking place this month.

Free star maps for January can be downloaded at http://www.skymaps.com/downloads.html and http://www.telescope.com/content.jsp?pageName=Monthly-Star-Chart

The famous eclipsing variable star Algol (Beta Persei) is at a minimum, decreasing in magnitude from 2.1 to 3.4, on January 3rd, 6th, 8th, 11th, 14th, 17th, 20th, 23rd, 26th, 28th and 31st. Consult http://www.skyandtelescope.com/observing/objects/variablestars/Minima_of_Algol.html for the times of the eclipses. For more on Algol, see http://stars.astro.illinois.edu/sow/Algol.html and http://www.solstation.com/stars2/algol3.htm

For location (40°16'N 76°45'W) Hummelstown, PA, USA:
January 1:
Astronomical twilight starts: 5:52 a.m.
Nautical twilight starts: 6:25 a.m.
Civil twilight starts: 6:59 a.m.
Sunrise: 7:30 a.m.
Sunset: 4:52 p.m.
Civil twilight ends: 5:22 p.m.
Nautical twilight ends: 5:56 p.m.
Astronomical twilight ends: 6:29 p.m.
Minimum altitude of sun: 12:10 a.m. Altitude: -72.7° Azimuth: 360°
Maximum altitude of sun: 12:11 p.m. Altitude: 26.8° Azimuth: 180°

February 1:
Astronomical twilight starts: 5:43 a.m.
Nautical twilight starts: 6:15 a.m.
Civil twilight starts: 6:47 a.m.
Sunrise: 7:16 a.m.
Sunset: 5:26 p.m.
Civil twilight ends: 5:54 p.m.
Nautical twilight ends: 6:27 p.m.
Astronomical twilight ends: 6:59 p.m.
Minimum altitude of sun: 12:00 a.m. Altitude: -66.8° Azimuth: 360°
Maximum altitude of sun: 12:21 p.m. Altitude: 32.8° Azimuth: 180°

For location (40°16'N 76°45'W) Hummelstown, PA, USA:

January 1 planet information (24 hr. clock):

	R.A.	DEC.	DIA.”	MAG.	%ILL.	RISE	TRANSIT	SET
Mercury	18:54:44	-24°42'	4.7	-1.2	99.8	07:37	12:13	16:40
Venus	19:53:14	-18°10'	60.2	-4.4	3.8	08:16	13:06	18:13
Mars	12:46:34	-02°38'	6.9	+0.8	90.4	00:08	06:02	11:57
Jupiter	07:09:52	+22°35'	46.8	-2.7	100.0	17:10	00:26	08:02
Saturn	15:14:08	-15°44'	15.9	+0.6	99.9	03:22	08:29	13:38
Uranus	00:32:58	+02°48'	3.4	+5.8	99.9	11:40	17:46	00:05
Neptune	22:21:38	-10°56'	2.2	+7.9	100.0	10:16	15:36	21:07
Pluto	18:47:09	-20°01'	0.1	+14.2	100.0	06:37	12:02	16:18

February 1 planet information (24 hr. clock):

	R.A.	DEC.	DIA.”	MAG.	%ILL.	RISE	TRANSIT	SET
Mercury	22:09:52	-10°49'	7.1	-0.5	50.5	08:02	13:24	18:53
Venus	18:56:00	-15°51'	51.4	-4.6	13.1	05:02	10:09	15:17
Mars	13:29:41	-06°39'	8.9	+0.2	91.4	23:07	04:43	10:28
Jupiter	06:53:08	+23°03'	45.5	-2.6	99.8	14:44	22:08	05:40
Saturn	15:23:05	-16:13'	16.6	+0.5	99.8	01:31	06:36	11:43
Uranus	00:35:47	+03°07'	3.3	+5.9	100.0	09:40	15:47	22:07
Neptune	22:25:20	-10°35'	2.2	+8.0	100.0	08:18	13:37	19:11
Pluto	8:51:38	-20°09'	0.1	+14.2	100.0	05:40	10:04	15:22

Comet information for: January 1, 2014 (New Moon).

	Constellation	Rises	Transits	Sets
C/2006 S3 (LONEOS)	Virgo	1:40 a.m.	6:52 a.m.	12:04 p.m.
C/ F6 (Lemmon)	Cassiopeia	circumpolar		
C/2011 J2 LINEAR)	Cepheus	circumpolar	3:09 p.m.	
C/2012 K1 (PannSTARRS)	Hercules	10:43 a.m.	5:52 p.m.	12:41 a.m.
C/2013 R1 (Lovejoy)	Hercules	3:37 a.m.	10:52 a.m.	6:05 p.m.
154P/Brewingtom	Pegasus	10:00 a.m.	5:11 p.m.	12:22 a.m.
290P/2013 N1 (Jager)	Auriga	3:02 p.m.	11:51 p.m.	8:38 a.m.
C/2012 X1 (LINEAR)	Hercules	3:12 a.m.	9:53 a.m.	4:33 p.m.
C/2013 V3 (Nevski)	Ursa Major	8:08 p.m.	4:31 a.m.	12:57 p.m.

The objects listed below are located between 4:00 and 6:00 hours of right ascension.

One hundred and five binary and multiple stars for January: Omega Aurigae, 5 Aurigae, Struve 644, 14 Aurigae, Struve 698, Struve 718, 26 Aurigae, Struve 764, Struve 796, Struve 811, Theta Aurigae (Auriga); Struve 485, 1 Camelopardalis, Struve 587, Beta Camelopardalis, 11 & 12 Camelopardalis, Struve 638, Struve 677, 29 Camelopardalis, Struve 780 (Camelopardalis); h3628, Struve 560, Struve 570, Struve 571, Struve 576, 55 Eridani, Struve 596, Struve 631, Struve 636, 66 Eridani, Struve 649 (Eridanus); Kappa Leporis, South 473, South 476, h3750, h3752, h3759, Beta Leporis, Alpha Leporis, h3780, Lallande 1, h3788, Gamma Leporis (Lepus); Struve 627, Struve 630, Struve 652, Phi Orionis, Otto Struve 517, Beta Orionis (Rigel), Struve 664, Tau Orionis, Burnham 189, h697, Struve 701, Eta Orionis, h2268, 31 Orionis, 33 Orionis, Delta Orionis (Mintaka), Struve 734, Struve 747, Lambda Orionis, Theta-1 Orionis (the Trapezium), Theta-2 Orionis, Iota Orionis, Struve 750, Struve 754, Sigma Orionis, Zeta Orionis (Alnitak), Struve 790, 52 Orionis, Struve 816, 59 Orionis, 60 Orionis (Orion); Struve 476, Espin 878, Struve 521, Struve 533, 56 Persei, Struve 552, 57 Persei (Perseus); Struve 479, Otto Struve 70, Struve 495, Otto Struve 72, Struve 510, 47 Tauri, Struve 517, Struve 523, Phi Tauri, Burnham 87, Xi Tauri, 62 Tauri, Kappa & 67 Tauri, Struve 548, Otto Struve 84, Struve 562, 88 Tauri, Struve 572, Tau Tauri, Struve 598, Struve 623, Struve 645, Struve 670, Struve 674, Struve 680, 111 Tauri, 114 Tauri, 118 Tauri, Struve 730, Struve 742, 133 Tauri (Taurus)

Notable carbon star for January: R Leporis

Seventy deep-sky objects for January: B26-28, B29, M36, M37, M38, NGC 1664, NGC 1778, NGC 1857, NGC 1893, NGC 1907, NGC 1931 (Auriga); IC 361, Kemble 1 (Kemble’s Cascade asterism), NGC 1501, NGC 1502, NGC 1530, NGC 1569 (Camelopardalis); NGC 1507, NGC 1518, NGC 1531, NGC 1532, NGC 1535, NGC 1537, NGC 1600, NGC 1637, NGC 1659, NGC 1700 (Eridanus); IC 418, M79, NGC 1832, NGC 1888, NGC 1964 (Lepus); B33, Cr65, Cr69, Cr70, IC 434, M42, M43, M78, NGC 1662, NGC 1973-75-77, NGC 1981, NGC 1999, NGC 2022, NGC 2023, NGC 2024, NGC 2112 (Orion); Be11, NGC 1491, NGC 1496, NGC 1499, NGC 1513, NGC 1528, NGC 1545, NGC 1548, NGC 1579, NGC 1582, NGC 1605, NGC 1624 (Perseus); DoDz3, DoDz4, M1, Mel 25, NGC 1514, NGC 1587, NGC 1647, NGC 1746, NGC 1807, NGC 1817 (Taurus)

Top ten binocular deep-sky objects for January: Kemble 1, M36, M37, M38, M42, NGC 1528, NGC 1647, NGC 1746, NGC 1981

Top ten deep-sky objects for January: M42, M43, M78, M79, NGC 1499, NGC 1501, NGC 1502, NGC 1514, NGC 1931, NGC 2024

Challenge deep-sky object for January: IC 2118 (Eridanus)