

# METEORS

In this list of the year's meteor showers for 2017, "(14)" for example means the expected time of the peak, in Universal Time. The prediction can be uncertain. Some showers have sharp peaks of only a few hours, some are very broad and indefinite.

"Jan 15-25" (for example) is the span of time over which at least a few meteors of the shower may be seen.

**Boldface** denotes some of the better-known showers.

The phase of the Moon near to the time of a shower is given because moonlight is (after clouds and light-pollution) the chief limiter of meteors' visibility. If a Full Moon is in the sky, only the few brightest meteors may be seen.

"ZHR" is zenithal hourly rate, the theoretical number of meteors per hour that one observers might see at the peak, in the zenith, in perfect conditions. So the actual rates seen are usually less.

The names of the showers are derived from the constellations in which are their radiants. (Quadrans Muralis was a constellation that is no longer used.) Meteors of, for instance, the Leonid shower may be seen in any part of the sky, but show themselves to be Leonids if their paths, projected backward, intersect in Leo

Jan 3 (14):	<b>Quadrantids.</b> Dec 28-Jan 12. ZHR 120. First Quarter Jan 5.	Sep 1 (2):	Aurigids. Aug 28-Sep 5. ZHR 6. First Quarter Aug 29.
Jan 19 (3):	Gamma Ursa Minorids. Jan 15-25. ZHR 3. Last Quarter Jan 19. New minor shower.	Sep 9 (11):	September Epsilon Perseids. Sep 5-21. ZHR 5. <b>Full</b> Sep 6.
		Sep 27 (11):	Daytime Sextantids. Sep 9-Oct 9. ZHR 5.
Feb 8 (1):	Alpha Centaurids. Jan 28-Feb 21. ZHR 6. <b>Full</b> Feb 11.	Oct 8 (18):	Draconids. Oct 6-10. ZHR variable. <b>Full</b> Oct 5.
Mar 14 (15):	Gamma Normids. Feb 25-Mar 28. ZHR 6. <b>Full</b> Mar 12.	Oct 10 (9):	Southern Taurids. Sep 10-Nov 20. ZHR 5. Last Quarter Oct 12.
		Oct 11 (9):	Delta Aurigids. Oct 10-18. ZHR 2. Last Quarter Oct 12.
Apr 22 (12):	<b>Lyrids.</b> Apr 16-25. ZHR 18. Last Quarter Apr 19.	Oct 18 (11):	Epsilon Geminids. Oct 14-27. ZHR 3. <b>New</b> Oct 19.
Apr 23 (17):	Pi Puppids. Apr 15-28. ZHR variable. <b>New</b> Apr 26.	Oct 21 (11):	<b>Orionids.</b> Oct 2-Nov 7. ZHR 15. <b>New</b> Oct 19.
		Oct 24 (11):	Leo Minorids. Oct 19-27. ZHR 2. First Quarter Oct 27.
May 6 (2):	<b>Eta Aquarids.</b> Apr 19-May 28. ZHR 50. First Quarter May 3.	Nov 12 (11):	Northern Taurids. Oct 20-Dec 10. ZHR 5. Last Quarter Nov 10.
May 8 (16):	Eta Lyrids. May 3-14. ZHR 3. <b>Full</b> May 10.	Nov 17 (16):	<b>Leonids.</b> Nov 6-30. ZHR 15. <b>New</b> Nov 18.
		Nov 21 (17):	Alpha Monocerotids. Nov 15-25. ZHR variable. <b>New</b> Nov 18.
Jun 7 (10):	Daytime Arietids. May 14-Jun 24. ZHR 50.	Nov 28 (7):	November Orionids. Nov 13-Dec 6. ZHR 3. First Quarter Nov 26.
Jun 23 (13):	June Boötids. Jun 22-Jul 2. ZHR variable. <b>New</b> Jun 24. <b>New</b> Jun 24.		
Jul 28 (3):	Piscis Austrinids. Jul 15-Aug 10. ZHR 5. First Quarter Jul 30.	Dec 2 (6):	Phoenicids. Nov 28-Dec 9. ZHR variable. <b>Full</b> Dec 3.
Jul 30 (5):	Southern Delta Aquarids. Jul 12-Aug 23. ZHR 25. First Quarter Jul 30.	Dec 7 (4):	Puppids-Velids. Dec 1-15. ZHR 10. Last Quarter Dec 10.
Jul 30 (5):	Alpha Capricornids. Jul 3-Aug 15. ZHR 5. Jul 30.	Dec 9 (3):	Monocerotids. Dec 5-20. ZHR 2. Last Quarter Dec 10.
		Dec 12 (2):	Sigma Hydrids. Dec 3-15. ZHR 3. Last Quarter Dec 10.
Aug 12 (19):	<b>Perseids.</b> Jul 17-Aug 24. ZHR 150. Last Quarter Aug 15.	Dec 14 (6):	<b>Geminids.</b> Dec 4-17. ZHR 120. <b>New</b> Dec 18.
Aug 17 (0):	Kappa Cygnids. Aug 3-25. ZHR 3. Last Quarter Aug 15.	Dec 16 (1):	Coma Berenicids. Dec 12-Dec 23. ZHR 3. <b>New</b> Dec 18.
		Dec 19 (23):	December Leo Minorids. Dec 5-Feb 4. ZHR 5. <b>New</b> Dec 18.
		Dec 22 (15):	<b>Ursids.</b> Dec 17-26. ZHR 10. First Quarter Dec 26.

