

A Brief Column for the Beginning Stargazer Introducing a New Astronomical Term Each Month

Astronomy is rich with terminology. This column will help beginning stargazers ease into the world of astronomy by *briefly introducing* a new but *basic astronomical term* (word, acronym or abbreviation) each month. This list, which began January 1999 with the letter *a*, is alphabetical but uses successive letters for each month's entry. (We will return to the letter *a* after twenty-six months.)

(The February 2001 column ended with z so we are now in the second cycle of twenty-six terms. See the February 2001 issue for a cumulative index.)

Word of the Month for April 2001

bolide An especially bright meteor (*fireball*) accompanied by one or more explosive sounds or sonic booms.

Note: A *meteor* (a "shooting star" or "falling star") is the brief, luminous trail produced by a particle of material (often no larger than a pea) entering the Earth's atmosphere. The meteor is the luminous streak of glowing air and not the particle itself, which is usually too small to see.

If no explosive sounds emanate, the bright object is usually just called a *fireball*. (See "fireball.")

If the fragments of the fireball produce an audible sound, the leading mass of the bolide usually produces a sonic boom possibly followed by many smaller detonations from other major fragments.

Fireballs themselves are comparatively rare, very bright *meteors*. Although no standard definitions of fireballs exist, typical apparent magnitudes for fireballs are -3 or brighter (slightly brighter than Jupiter). Some may exceed the brightness of Venus (about magnitude -4.5) while others may rival the Moon's brightness (very rare). However, probably fewer than one fireball occurs for every one thousand meteors.

Since large objects entering the Earth's atmosphere may produce fireballs that may fragment, *meteorite falls* may occur. A *fall* is a *meteorite* (the fallen fragment) that has been seen to fall. About 40% of known, recovered meteorites were first seen to fall. This results in a meteorite *find*.

Some major meteor showers may produce many fireballs. These showers include the *Perseids* in August and the *Geminids* in December. ✧

References. J. Mitton 1991, *Concise Dictionary of Astronomy* (Oxford Univ. Press); I. Ridpath 1997, *A Dictionary of Astronomy* (Oxford Univ. Press).