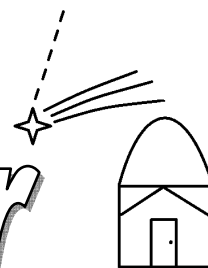


Comet Calendar



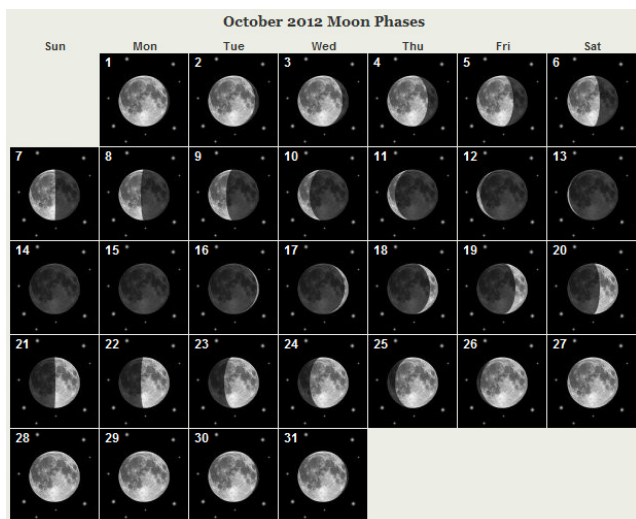
From Asterion observatory

COMET VISIBILITY IN THE NORTHERN HEMISPHERE IN OCTOBER:

Comet	Brightness	Time of observations	Constellations	Instrument
C/2011 F1 (LINEAR)	11.5	Evening	Serpens, Libra, Ophiuchus	20-cm reflector
C/2009 P1 (Garradd)	12	Morning	Sextans	25-cm reflector
C/2012 K5 (LINEAR)	12	First half of night	Böotes	20-cm reflector
260P/McNaught	13	All night	Triangulum, Andromeda	20-cm reflector
C/2011 UF305 (LINEAR)	13.5	Second half of night	Leo Minor	20-cm reflector
C/2010 S1 (LINEAR)	13.5	All night	Cygnus	25-cm reflector
C/2012 J1 (Catalina)	13.5	All night	Andromeda, Pegasus	25-cm reflector

COMET VISIBILITY IN THE SOUTHERN HEMISPHERE IN OCTOBER:

Comet	Brightness	Time of observations	Constellations	Instrument
C/2011 L4 (PanSTARRS)	11	Evening	Libra	15-cm reflector
C/2011 R1 (McNaught)	11.5	Evening	Centaurus, Lupus	15-cm reflector
C/2009 F4 (McNaught)	13.5	Second half of night	Dorado, Reticulum	25-cm reflector



During October observing comets through a reflecting telescope less than 20 cm in diameter is not going to be very effective. However for a 25-cm telescope there will already be a few (maybe five or even more) tailed wanderers in the sky to observe.

New moon will fall upon the 15th, so in this view mid-October will be perfect for comet observation. Approximately from the 12th to 17-18th of October it will be possible to observe comets all night long. On the 22nd of October the Moon will pass its first quarter phase, during this period it will be setting in the middle of the night, depriving us of the opportunity to gaze at the comets in the evening sky. From October 26 and through the end of the month it will be impossible to observe comets due to the forthcoming new moon.

The brightest tailed star of the month will be

C/2011 F1 (LINEAR) with brightness of approximately 11-12^m, but it will be located quite low in evening twilight, which will considerably impede its observation. After conjunction with the Sun the comet will pass over to the southern hemisphere, and will no longer be visible from the middle latitudes of the northern hemisphere.

In the evening one can also observe – and in much better conditions – comet **C/2012 K5 (LINEAR)**, the brightness of which in October is predicted to be at 12^m. It will be passing through Böotes, approaching the Sun and the Earth; the comet is going to be in the most unfavorable position for observation before its maximum brightness at the end of October – beginning of November, after which its elongation is going to increase. In the course of the following months the comet will be enhancing its brightness quite rapidly. At the end of 2012 – beginning of 2013 it will pass closest to our planet at a distance of less than 0.3 AU, and at magnitude of 7-9^m it will be visible near the zenith in the middle latitudes of the Northern hemisphere. It is highly probable, that in this period the comet will be easily tracked down even with a small telescope, its rate of motion in the sky approaching 5.5 degrees per day (14"/per minute), which means that while observing the comet through a telescope the movement of the object against the stars will be perceptible immediately. The comet will attain a maximum magnitude and maximum rate of motion around New Year's night, which will give new zest to its observation.

Three comets will be available for observation throughout the whole night – the very faint C/2010 S1

260P/McNaught
Information

This comet was discovered on the 20th of May 2005 by Robert McNaught – the man with the most comet discoveries under his belt in astronomical history (72 so far), with the use of a 50-cm Schmidt telescope of in Siding Spring Survey (Australia). The discoverer reported a condensed, slightly diffuse coma and a thin tail half an arcminute long, directed to South-West. During its discovery apparition the brightness of the comet was at 17^m, later it got 2-3 star magnitudes brighter (at the end of summer/beginning of autumn 2005).

During its current apparition the comet is relatively easily available for visual observation, in the pictures it demonstrates a gorgeous tail several arcminutes long, which can be visually discerned with the help of very large telescopes.



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(LINEAR) and C/2012 J1 (Catalina), as well as 260P/McNaught.

In the course of the month the distant comet **C/2010 S1 (LINEAR)** will pass through the central part of Cygnus, near a Cyg (on October 20-22 the proximity to the star will be minimal – less than one degree of arc), so it will be possible to observe this object at night neat the zenith. The brightness of the tailed wanderer will be quite low – between magnitude 13 and 14; so, perhaps even for a 25-cm telescope it is going to be quite a task. This comet will pass its perihelion point in the first half of 2013, and probably by that time it will have enhanced its brightness by half magnitude; at the present moment it is photometrically stable.

C/2012 J1 (Catalina) will be passing through the constellations of Andromeda and Pegasus and will look like a faint compact object at magnitude of 13-14. It is exactly in October and November that the brightness of the comet will be maximum (due to its closest approach to our planet), although C/2012 J1 will only pass its perihelion in the first half of December.

The short-period comet **260P/McNaught** that passed its perihelion in mid-September this year will be fading in October. Moving through the constellations of Triangulum and Andromeda, the comet will be passing along the outer part of the bright (5.7^m) open star cluster

NGC 752 on October 11-12. Observing the comet with a large telescope (perhaps, 50 cm and more in diameter) one can see the beginning of a very beautiful tail of this night visitor (see picture above). Despite its low total brightness, the beautiful 260P is really one of the high-lights of the autumn sky.

Two comets will be available for observation in the morning, and the brighter one – **C/2009 P1 (Garradd)** – strange as it might seem – is going be more difficult. Observing this comet as a faint nebulous spot in the constellation of Sextans, one has only to reminisce about its bygone splendor in the past winter and spring, when this object was visible even in simplest binoculars. It is important to point out that on October 28 this comet, as well as comet **185P/Petriew** (the brightness of which will be at 14^m or less), and Centaurus and Lupus will be separated by only 12 arc minutes. One will only be able to see this union with the help of large telescopes, however it is much easier to catch it on camera. So we will be expecting wonderful images of this rare event from amateur astrophotographers!

C/2011 UF305 (LINEAR) will probably be magnitude 13, passing through Leo Minor. Only large (by amateur standards) telescopes will enable you to observe this tailed wanderer. The brightness of the comet will gradually continue to fade, making it more and more challenging for amateur observation.

Of the above mentioned tailed wanderers none will be visible in the Southern hemisphere (except for maybe C/2009 P1 (Garradd) at the end of the month). However, here one can admire three comets that are absolutely out of sight in the North. The brightest of them will be **C/2011 L4 (PanSTARRS)**, promising a splendid sky performance in March next year. Moving in the night sky through the constellation of Libra, the comet will be decreasing its elongation with each day, thus becoming more and more difficult to observe. At magnitude of 11^m C/2011 L4 will look like a small dim speckle.

C/2011 R1 (McNaught) will be available for observation in the evening hours. At magnitude of about 11.5^m the comet will be passing through the constellations of Centaurus and Lupus. It will look like quite a diffuse object, visible with average (by amateur standards) aperture telescopes.

The faint and distant comet **C/2009 F4 (McNaught)** will be passing in the Dorado and Reticulum constellations at magnitude of 13.5-14^m. It will be visible with a 25-cm telescope. On October 31 the comet will pass along the external boundary of the galaxy NGC 1543 (10.6^m).



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Lunar phase calendar obtained from:

<http://www.farmersalmanac.com/calendar/moon-phases/2012/10/>