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Long time exposure image of the Geminid meteor shower in 1986  
Jimmy Westlake

## [Don't Miss Tonight's Geminid Meteor Shower](#)

### *One of the best annual meteor showers*

As its name says, the Geminid meteor shower originates from a point close to the Gemini constellation, near the Castor star, and represents one of the most satisfying annual meteor showers, in some years even surpassing the famous Perseids meteor shower that occurs in the month of August. It is triggered by the passing of an asteroid, not a comet as most of the other meteor showers. The 3200 Phaethon asteroid is most likely the remnant core of a comet that lost all its ice during the many passes through the vicinity of the Sun. It was discovered in 1983, after a close encounter with our planet, and this year on the 10th of December it made its closest pass through the vicinity of our planet since it was discovered, at only 18 million kilometers away. Debris left behind by the asteroid intersects Earth's orbit and falls towards the surface at speeds that average about 35 kilometers per second, burning into the atmosphere due to the heat generated by the friction with air. They frequently break in several fragments that then follow separate paths. Unlike other meteor showers the Geminids do not produce the distinct bright visible trails. Meteors left behind by the asteroid present a special feature in that they are actually four times more dense than most of the meteors that fall down to Earth. According to the astronomers' calculations the peak of the meteor shower should take place tonight, on the 14th of December, at 16:46 GMT, which is kind of disappointing as it will only be visible in Asia, Alaska and parts of the North American continent. Nevertheless, the observation conditions will be remarkable this year, as the Moon is in the new phase stage and will set relatively early leaving behind a dark sky perfect for meteor shower observation. Tonight, the Gemini constellation will appear directly overhead, which means that the meteors will seem to streak from one point and disperse in a spoke-like pattern across the night sky. However, you should not get overexcited, as the phenomenon will not display such a dramatic spectacle as Leonid meteor shower did several years ago. Although astronomers predict that about 120 meteors per hour could be recorded in the best viewing spots, only 6 to 10 of them would be relatively big meteorites. At the same time, Mars is also present in the Gemini constellation this month so it is a good opportunity to view both the Red Planet and the meteor shower at the same time, as the relatively bright orange dot on the night sky would be easily visible. All you need now is a thick coat to keep you warm and a little bit of patience, as the real display of lights only begins after midnight.