

เขียนโดย Administrator

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Are there any asteroids on a collision course with Earth?

"Hey, I was just reading on compuserve news this morning that a British astronomer discovered some type of asteroid that is 1.3 miles in length headed for earth. He said it would reach us in 17 years and it could destroy all life, or turn some of us to the dark ages. Is this true? If so is there a way to stop this ? Please give me any HONEST information you have, because the media can say otherwise all the time.

When it was first discovered, the asteroid known as 2002 NT7 had a small chance of impacting the Earth in 2019. When this question was first answered, in 2004, the probability of that impact was about one in 100,000 (a very low risk). Now, based on the data we currently have (as of July 2015), this asteroid will NOT collide with Earth within the foreseeable future. On January 15, 2099, it will be 0.37 AU from Earth (more than 100 times the distance to the Moon), and that is the closest that it will come until after 2199. However, because it is such a large object, astronomers believe that it should be closely monitored. This asteroid is near the lower end of the size range that could actually cause a global disaster if it hit us. In addition to immediately causing tremendous damage wherever it impacted, an asteroid strike would throw a great deal of dust into the atmosphere, which could block the light of the Sun, possibly for several years. We call this 'impact winter', similar to the 'nuclear winter' which would follow a large nuclear war. The lack of sunlight would kill most of the plant life on Earth. For humans, this would mean famines, and possibly even extinction.

As of July 2015, the top two known impact risks are asteroids 2009 FD (diameter of

about half a kilometer; has one chance in 340 of striking the Earth in 2185 or later) and Bennu (diameter also about half a kilometer; has one chance in 2700 of hitting Earth in 2175 or later). 2009 FD will be observed closely when it comes near Earth in October 2015. Bennu will be studied in detail by NASA's OSIRIS-REx spacecraft, when it arrives at Bennu in 2018. Most likely, further observations of those asteroids will improve our knowledge of their orbits enough to rule out those possible impacts.

What if we find an asteroid that is on a collision course? With several years of warning, we might be able to use deflecting spacecraft, or even nuclear bombs, to give the asteroid a slight nudge at just the right part of its orbit, causing it to miss us.

It's wise to be skeptical of what the media tell us, because they like to play up the risks to make a better story. However, if astronomers find an asteroid that has a high risk of hitting the Earth, I don't think it would be easy to cover it up. Astronomers are very conscious of our obligation to share their information with the public, and we try very hard to give accurate and helpful information to the press. With email and the internet, astronomers share information about impact hazards all the

time. Most observations of asteroids' positions are posted to the Minor Planet Center's website within a few hours. It would be very hard to keep the information from getting out!



"I notice there hasn't been much publicity on the

updates of research on asteroid 2002 NT7's near-collision course with the Earth in Feb. 2019. Please indicate the the most current updates as to whether Earth collision has been ruled out or still a concern of possibility.

The asteroid 2002 NT7 is no longer considered a threat to Earth. Initial models showed that there was a very small possibility that it could impact Earth in February 2019, and this attracted a lot of media attention. However, two days after the media released the story, additional observations showed that there was no

chance that the asteroid would hit Earth in 2019. As far as we know from the data and models that we have now, 2002 NT7 will not ever impact Earth. I'm not sure why there's always much less press when it's discovered that an asteroid won't impact Earth, especially when it's been covered so dramatically in major media sources.

Probably it's just less interesting to hear that there is no longer a threat than it is to announce a possible impact in the first place. For more information about asteroids, you can look at NASA's Asteroid Watch and Near-Earth Object Program

websites, and the impact risk page.

If you go to NASA's impact site (archived version here), search the news archive for the year 2003, and go to the September 3, 2003 article (archived version here) you'll find some information about 2002 NT7 at the bottom. The article talks generally about asteroids that were covered by the media and tries to analyze why they garnered so much attention.

"Are there any other asteroids on a collision course with Earth?"

Information on asteroids which pose a potential impact threat is updated almost daily at the NASA/JPL [impact risk page](#) so please look there for the answer to your question. As mentioned above, for some reason the media like to report extensively on asteroids which are predicted to have a chance of impacting the Earth, but seem less interested in updating the news when further observations

show that the threat from a particular asteroid is removed.

When an asteroid is found to have an orbit which might cause it to impact the Earth, naturally many more observations are made to try to better constrain the orbit, and these observations often prove that the asteroid will in fact not impact the Earth.

This page was last updated by Sean Marshall, on July 18, 2015.

From the website

[Ask an astronomer](#)

<http://curious.astro.cornell.edu/>

Comet 252P/LINEAR flew past

Earth on March 21, 2016.

Hubble captures comet's
close Earth encounter

(CNN) One of the closest encounters between a comet and Earth has been captured by NASA's Hubble Space Telescope.

The American space agency released a series of images on Thursday of Comet 252P/LINEAR flying past our planet. The images were captured in early April — two weeks after the icy object

zoomed by.

On March 21, the comet came within 3.3 millions miles of our planet, the world's fifth-closest

encounter. For reference,
that's 14 times the
distance between us and
the moon.

Other than our moon, this

is one of Hubble's closest observations of a celestial object.

In the images, a jet of space dust can be seen spewing out from the comet. These celestial objects are normally comprised of frozen material. Comets are like "cosmic snowballs" of gas,

rocks and dust. When they are warmed, their frozen material transforms into large glowing heads.

Sometimes, comets can be as big as a small town. The center of a comet, called the nucleus, is usually 6 miles wide. When comets approach the sun, the nucleus

vaporizes and can
expand as wide as
50,000 miles.

Comet 252P/LINEAR's
nucleus, which houses
frozen material that

melts and becomes a jet stream of dust, was too small for Hubble to capture.

Astronomers believe it is less than one mile

across, which is
relatively small.

Comet 252P/LINEAR is
currently flying away
from Earth. It will have
an encore in 2021 when

its orbit will bring it back
to our inner solar
system, but the comet
won't be as close to
Earth.



Secrets of the Earth - It Fell from Space

{jcomments on}