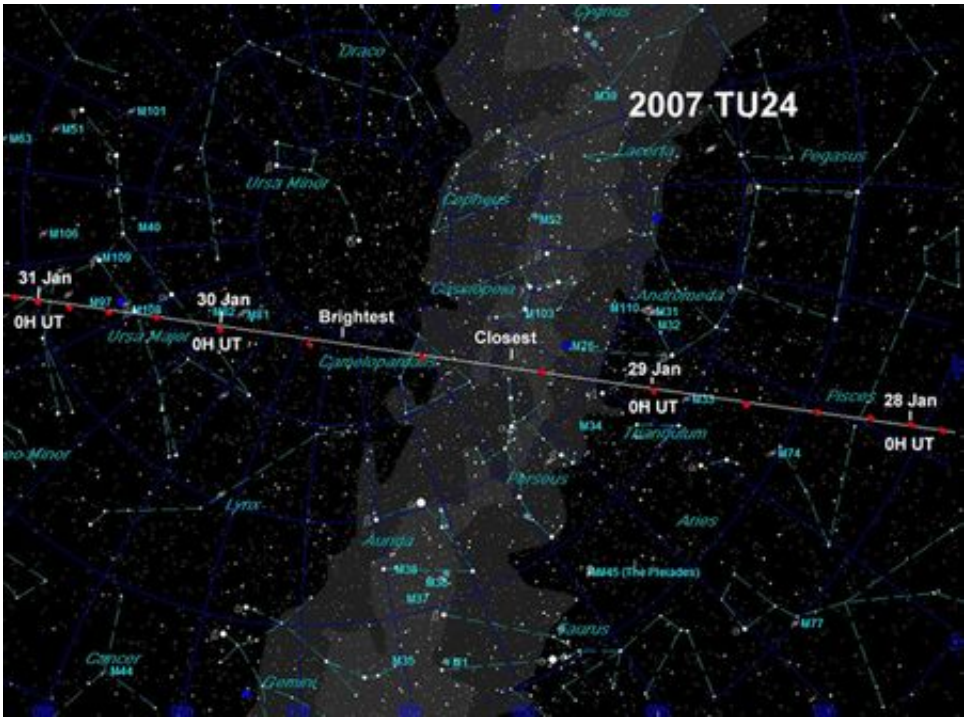
Asteroid to Make Rare Close Flyby of Earth

January 24 2008



The illustration from an amateur astronomer shows the asteroid&acutes track on the sky for 3 days near the time of the close Earth approach as seen from the city of Philadelphia. Image courtesy: Dr. Dale Ireland, Silverdale, WA.

Scientists are monitoring the orbit of asteroid 2007 TU24. The asteroid, believed to be between 150 meters (500 feet) and 610 meters (2,000 feet) in size, is expected to fly past Earth on Jan. 29, with its closest distance being about 537,500 kilometers (334,000 miles) at 12:33 a.m. Pacific time (3:33 a.m. Eastern time). It should be observable that night by amateur astronomers with modest-sized telescopes.

Asteroid 2007 TU24 was discovered by the NASA-sponsored Catalina Sky Survey on Oct. 11, 2007. Scientists at NASA's Near-Earth Object Program Office at the Jet Propulsion Laboratory in Pasadena, Calif., have determined that there is no possibility of an impact with Earth in the foreseeable future.

"This will be the closest approach by a known asteroid of this size or larger until 2027," said Don Yeomans, manager of the Near Earth Object Program Office at JPL. "As its closest approach is about one-and-a-half times the distance of Earth to the moon, there is no reason for concern. On the contrary, Mother Nature is providing us an excellent opportunity to perform scientific observations."

Asteroid 2007 TU24 will reach an approximate apparent magnitude 10.3 on Jan. 29-30 before quickly becoming fainter as it moves farther from Earth. On that night, the asteroid will be observable in dark and clear skies through amateur telescopes with apertures of at least 7.6 centimeters (3 inches). An object with a magnitude of 10.3 is about 50 times fainter than an object just visible to the naked eye in a clear, dark sky.

NASA detects and tracks asteroids and comets passing close to Earth. The Near Earth Object Observation Program, commonly called "Spaceguard," discovers, characterizes and computes trajectories for these objects to determine if any could be potentially hazardous to our planet.

Source: NASA

Citation: Asteroid to Make Rare Close Flyby of Earth (2008, January 24) retrieved 18 April 2024 from https://phys.org/news/2008-01-asteroid-rare-flyby-earth.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.