

EXERCISE – EXERCISE - EXERCISE

Update for Close Approach of Asteroid 2012 TC4

Observations continue for the small asteroid designated 2012 TC4 that is predicted to safely pass close by the Earth in about two weeks - on Thursday, 12 October 2017. Multiple teams of astronomers have now measured the asteroid's motion and will observe for physical properties as part of the characterization campaign as the object gets closer. Orbit predictions using the new observations from observatories around the world have refined the time of closest approach to 1:42 AM EDT at a distance of 27,211 miles (43,793 kilometers) from Earth's surface. This notification is provided as part of an exercise of the recovery, characterization, and reporting of a close approach object, as outlined in NPD 8740.1 - Notification and Communications Regarding Potential Near-Earth Object Threats.

Exercise input by the Pan-STARRS near-Earth object survey project in Hawaii indicate that 2012 TC4 could have only been picked up by routine survey operations just last Monday, 25 Sept - only 18 days before closest approach. Only the targeted search for 2012 TC4 as a known approaching asteroid with a larger, 8 meter telescope resulted in its recovery in early August. Also as part of this exercise scientists funded by NASA's Planetary Defense Coordination Office will use the observed physical properties of the asteroid to model potential impact effects if this asteroid were to impact Earth. Models will be updated with the latest observations as would happen in a real-world potential impact scenario in order to inform emergency response planning. Although there is no chance that 2012 TC4 could impact Earth on 12 October 2017, orbit analysts have begun to look at potential future encounters between Earth and this asteroid as it will continue to pass within Earth's vicinity every few years.

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