

Report: Funds Needed For Asteroid Warning System

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Courtesy of NASA

In 2004, Comet C/2001 Q4 (NEAT), seen here, passed within 30 million miles of the Earth's orbit. A new report suggests that such near-Earth objects may go undetected by NASA, unless additional funding is provided.

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There's no way NASA can meet a deadline recently set by Congress to search for large space rocks that might potentially threaten the Earth, according to a new report by an expert committee at the National Research Council.

A few years ago, Congress told NASA to be on the lookout for icy comets and rocky asteroids close to Earth that might pose a risk to the planet. NASA was given a deadline — by the year 2020, the agency is supposed to find 90 percent of the ones equal to or bigger than about 450 feet across.

"No matter what we do, it's now too late to meet the 2020 deadline that Congress set four or five years ago," says Michael A'Hearn, an expert on comets and asteroids at the University of Maryland who served on the National Research Council committee. The committee has just put out a new report, entitled "Defending Planet Earth: Near-Earth Object Surveys and Hazard Mitigation Strategies," that was sponsored by NASA at the request of Congress.

A'Hearn says Congress didn't give NASA any special funding for its mandated search, and the agency didn't ask for any. "If you've set a deadline and then don't fund it," he says, "it's not going to happen."

Either Option Would Cost Money

The new report says that NASA could finish the job close to the deadline if it built and launched a new space telescope. Or, it could construct a new ground-based telescope and reach the goal by around 2030. But either option would cost money.

"You're talking about a billion dollars over 20 years. That's \$50 million a year," says A'Hearn.

That's far more than the \$4 million or so that NASA currently spends each year to detect near-Earth objects.

The committee also recommended that NASA monitor for smaller space rocks, about 100 to 165 feet across. And it said NASA needs a new research program to learn more about how to best destroy or deflect threatening asteroids or comets, once they're discovered.

How much the government wants to devote to all these efforts is fundamentally a political decision, says A'Hearn, and one that has to do with perceived risk.

"Something that would wipe out humanity entirely, comparable to what wiped out the dinosaurs, that's going to happen once in a hundred million years. That's a pretty low-probability event," he says.

'The Risk Of Impact In A Century Is Significant'

But impacts from smaller objects happen more frequently, and can still cause devastating damage. A famous 1908 event at Tunguska in the Siberian wilderness destroyed more than 770 square miles of forest. Recent research suggests that the impact could have come from a space object maybe just 100 feet or so across. If so, an event like that might happen once every few centuries and has the potential to flatten a city if it hit the right spot.

"The risk of an impact in any given year is small. Even in any given decade, the risk of an impact is small," says A'Hearn. "The risk of an impact in a century is significant." He says the committee was comfortable with NASA's deadline for the goal set by Congress slipping by years, but not decades.

"NASA just received the report," says Jim Green, director of NASA's planetary sciences division. "It's going to take us time to study the document." He says it may take a couple months for the agency to respond to the National Research Council with its take on the recommendations.

He says the Obama administration should present its new NASA budget request to Congress within weeks, but he was not at liberty at the moment to say what, if anything, would be requested for beefing up near-Earth object surveys.

He added that other agencies besides NASA should be involved in this effort. "This is a bigger issue than what we can just handle ourselves," says Green, noting that there needs to be coordination both within the US agencies and internationally.