

25,000 new asteroids found by NASA's sky mapping

July 16 2010, By ALICIA CHANG , AP Science Writer



This image provided by the NASA/JPL-Caltech/WISE Team shows the Wide-field Infrared Survey Explorer (WISE) view of the nearby galaxy Messier 83. It is sometimes referred to as the southern Pinwheel galaxy. What's special about WISE is its ability to see through impenetrable veils of dust, picking up the heat glow of objects that are invisible to regular telescopes. So far, WISE has discovered 25,000 never-before-seen asteroids. Of those, 95 are considered "near-Earth" asteroids.(AP Photo/ NASA/JPL-Caltech/WISE Team)

(AP) -- Worried about Earth-threatening asteroids? One of NASA's newest space telescopes has spotted 25,000 never-before-seen asteroids in just six months.

Ninety-five of those are considered "near Earth," but in the language of astronomy that means within 30 million miles. Luckily for us, none poses any threat to Earth anytime soon.

Called WISE for [Wide-field Infrared Survey Explorer](#), the telescope completes its first full scan of the sky on Saturday and then begins another round of imaging.

What's special about WISE is its ability to see through impenetrable veils of dust, picking up the heat glow of objects that are invisible to regular telescopes.

"Most telescopes focus on the hottest and brightest objects in the universe," said Richard Binzel of the Massachusetts Institute of Technology. "WISE is especially sensitive to seeing what's cool and dark, what you could call the stealth objects of the universe."

Mission team members are elated with the discoveries of the \$320 million project, which launched in December. By the end of the year, researchers expect to have a cosmic census of millions of newfound objects that should help answer questions about how planets, stars and galaxies form.

Besides all those asteroids, WISE has also sighted 15 new comets. It has spied hundreds of potential [brown dwarfs](#) - stellar objects that are bigger than a planet but much smaller than a star - and confirmed the existence of 20 of them, including some of the coldest ever known.

The telescope also detected what's thought to be an ultraluminous galaxy, more than 10 billion light years away and formed from other [colliding galaxies](#).

"We're filling in the blanks on everything in the universe from near-Earth objects to forming galaxies," said project scientist Peter Eisenhardt of the NASA Jet Propulsion Laboratory, which is managing the mission. "There's quite a zoo."

WISE's 16-inch telescope was built by Utah State University's Space Dynamics Laboratory. It circles the Earth 300 miles high and takes snapshots every 11 seconds over the whole sky.

Since the sky survey began, the JPL team has reported the new near-Earth objects to the International Astronomical Union's Minor Planet Center, which keeps track of all small solar system objects.

WISE is discovering near-Earth asteroids that are on average larger than what's found by existing telescopes, which should help scientists better calculate their potential threat, said Harvard astronomer Timothy Spahr, who directs the Minor Planet Center.

The WISE mission comes a quarter century after the Infrared Astronomy Satellite made the first all-sky map in infrared wavelength in 1983. Unlike its predecessor, WISE is far more powerful. It's expected to keep taking images covering half of the sky until October when it will begin to run out of coolant.

NASA has released a picture a week of WISE's myriad finds. But the full celestial catalog of what's out there will not be released to the public until next year after the team has had time to process the images and flag false alarms.

"The real discoveries will come when we let the whole world in on the data," Eisenhardt said.

More information: WISE project: <http://wise.ssl.berkeley.edu/>

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