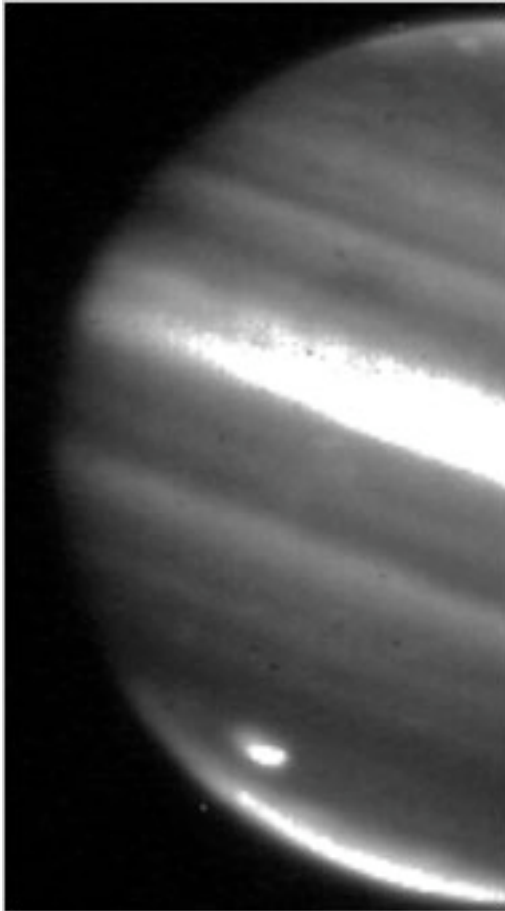


All Eyepieces on Jupiter After a Big Impact



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Anybody get the number of that truck?
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NASA released this infrared photo on Tuesday showing what scientists believe may be evidence that another object has crashed into Jupiter.

Astronomers were scrambling to get big telescopes turned to Jupiter on Tuesday to observe the remains of what looks like the biggest smashup in the solar system since fragments of the Comet Shoemaker-Levy 9 crashed into the planet in July 1994.

Something — probably a small comet — smacked into Jupiter on Sunday, leaving a bruise the size of the Pacific Ocean near its south pole. Just after midnight, Australian time, on Sunday, Jupiter came into view in the eyepiece of Anthony Wesley, an

amateur astronomer in Murrumbateman. The planet was bearing a black eye spookily similar to the ones left in 1994.

“This was a big event,” said Leigh Fletcher of the Jet Propulsion Laboratory. “In the inner solar system it would have been a disaster.”

“As far as we can see it looks very much like what happened 15 years ago,” said Brian Marsden of the Harvard-Smithsonian Center for Astrophysics, who is director emeritus of the International Astronomical Union’s Central Bureau for Astronomical Telegrams. The bureau issues bulletins about breaking astronomical news.

But astronomers admit they might never know for sure what hit Jupiter. “It’s like throwing a stone on the pond,” explained Dr. Fletcher. “You see the splash, but lose the stone. It’s the splash we can study.”

Dr. Fletcher said that he and his colleagues were frantically writing proposals for telescope time. Among the telescopes they have recruited is the Hubble Space Telescope, making its early return to the fray after a successful repair mission by astronauts this summer. Mario Livio, an astronomer at the Space Telescope Science Institute, said the group was planning to look at Jupiter’s bruise on Thursday and release a picture as soon as possible.

Mr. Wesley had thought about quitting for the night to watch sports on television, according to the account on his Web site, when he went back outside for another look and found the

spot. He e-mailed other astronomers, among them Dr. Fletcher and his colleague Glenn Orton, who had scheduled observing time that night at NASA's Infrared Telescope Facility on top of Hawaii's Mauna Kea. Jupiter's "scar" showed up in infrared light as a bright spot.

Meanwhile, Franck Marchis, an astronomer at the SETI Institute and the University of California, Berkeley, heard about Mr. Wesley's discovery through the Minor Planet Mailing List and blogged about it on his Web site.

Paul Kalas, another Berkeley astronomer, and Michael Fitzgerald of the Lawrence Livermore Laboratory, who were then using the Keck II telescope on Mauna Kea next door to the NASA infrared telescope to look for a recently discovered exoplanet, saw the blog and with Dr. Marchis's help, also turned their big eye on Jupiter.

Dr. Marchis said the shape of the debris splash as revealed in the Keck images suggested that whatever hit Jupiter might have been pulled apart by tidal forces from the planet's huge gravity before it hit. In an e-mail message, he said humans should be thankful for Jupiter.

"The solar system would have been a very dangerous place if we did not have Jupiter," he wrote. "We should thank our giant planet for suffering for us. Its strong gravitational field is acting like a shield protecting us from comets coming from the outer part of the solar system."