

MORE COMETARY SPECULATION: DID A COMET TRIGGER THE GREAT CHICAGO FIRE?

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By Irene Mona Klotz, Discovery News

March 5, 2004 - Perhaps it was not Mrs. O'Leary's cow kicking over a lantern that sparked the Great Chicago Fire of 1871, which destroyed the downtown area and claimed 300 lives.

New research lends credence to an alternative explanation: The fire, along with less-publicized and even more deadly blazes the same night in upstate Wisconsin and Michigan, was the result of a comet fragment crashing into Earth's atmosphere.

The comet theory has been around - and most often discarded - since at least 1883, but Robert Wood, a retired McDonnell Douglas physicist, said never before has the orbital parameters of the rogue comet been taken into consideration.

The likely suspect, in Wood's eyes, is a fragment from Biela's Comet, which had been circling the sun every six years and nine months before a close encounter with Jupiter caused it to break into two large fragments in 1845. During its next passage, astronomers noted a 1.5-million mile, 15-day gap between the two pieces.

Wood said his analysis of the fragments' positions during subsequent orbits shows that Jupiter's gravity again affected their speed and trajectory, sending the smaller fragment on a path toward Earth that ended in October 1871. He presented his findings at a conference last week titled "Planetary Defense: Protecting Earth from Asteroids," held in Garden Grove, Calif.

Wood cited eyewitness reports of spontaneous ignitions, lack of smoke and "fire balloons" falling from the sky to bolster his theory. If the fire had been caused by comet debris, which is believed to have consisted of small pieces of frozen methane, acetylene or other highly combustible chemicals, it also would explain the cause of the fires blazing north of Chicago, which wiped out 2,000 people and burned 4 million acres of farm and prairie lands.

The deceased included many who showed no signs of being burned, Wood said. "This would be consistent with either the absence of oxygen or the presence of carbon monoxide or carbon dioxide above lethal levels," - a rare - but not unprecedented - situation in large forest fires.

In all, over a 24-hour period, an area of land the size of Connecticut was burned. Wood speculates the main body of the comet crashed into Lake Michigan, with peripheral fragments causing the fires in Chicago, Wisconsin and Michigan.

NASA is among a handful of agencies and organizations working on cataloging potentially threatening near-Earth asteroids and comets. What would be done about any threatening asteroids, however, remains the domain of science fiction.

"What's important about these findings," Wood said, "is that they show you people can actually get killed from something from out of space."