

SECOND FRONT PAGE

A 2nd solar system suggested in photos

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USA TODAY

Scientists Monday released photographs of what may be a young solar system 293 trillion miles from our own, the strongest evidence yet pointing to the existence of planets around other stars.

The computer-enhanced photos, taken from a large telescope in Chile, show what appears to be an evolving solar system around Beta Pictoris.

Material orbiting the star includes ice and organic carbon compounds — similar to components that make up planets in Earth's solar system.

"Scientists believe that the

formation of the Earth and our solar system is a very common occurrence, but we never had proof that it happens elsewhere," said NASA's Richard Terrile, a project scientist.

"The most important question is: Are we unique in the galaxy in terms of life? But first we have to answer: Are we unique in terms of a planetary system — and we've begun to do that here," he said.

A satellite detected the apparent solar system earlier this year from high-radiation emissions, but the photos form the first solid evidence.

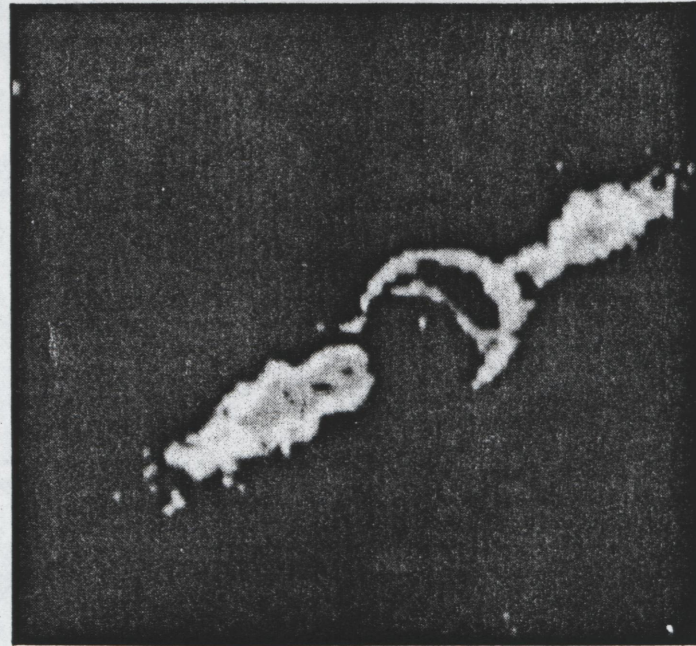
The pictures show Beta Pictoris surrounded by a swarm of solid particles in a disk 40 bil-

lion miles wide — 10 times as big as Earth's solar system.

Particles range from tiny grains to chunks miles across. "We're hypothesizing that in the center, it may have already formed planets ... and what we're seeing is debris from that formation," Terrile said.

The star, twice as large as the sun, appears faintly in the southern skies. Space explorer Voyager — which reached Mars in six months traveling about 19 miles per second — would take 500,000 years to get there from Earth.

NASA will launch an orbiting telescope in 1986 that could produce more information about Beta Pictoris.



BIRTH OF PLANETS? Computer-enhanced photo shows what may be an infant solar system. Flaring mass is debris — stretching 10 times the diameter of Earth's solar system — surrounding Beta Pictoris, a star not visible here but located in the dark center. AP