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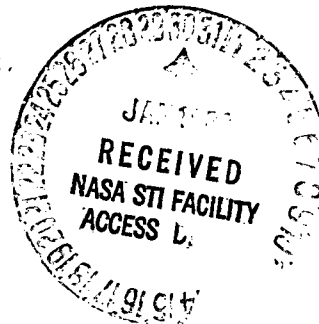
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ORBITING X-RAY OBSERVATORY EARNS MISSION EXTENSION

NASA's High Energy Astronomy Observatory-2, originally scheduled to end operations after one year in Earth orbit, will continue to search the skies for information about such objects as quasars, pulsars, exploding galaxies and black holes.

Officials decided that the many significant findings attributed to the spacecraft -- which carries the largest X-ray telescope every built -- warranted an extension of its space science mission beyond the projected lifetime of 11 months. The satellite is popularly known as the Einstein Observatory.

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"The performance of the observatory has been excellent throughout the first year of the mission," said Dr. Thomas A. Mutch, NASA Associate Administrator for Space Science. "The operation of the scientific instruments has met or exceeded our expectations."

The instruments continue to operate satisfactorily. A solid state spectrometer, which performed exceptionally well, has depleted its cryogens, and ceased operating, as expected.

Among the most significant new findings from the observatory (nicknamed Einstein by scientists who provided the instrumentation on board) are the following:

- The X-ray observation of more than 60 known quasars, ranging from relatively nearby to the most distant objects known, and the discovery of more than a dozen previously unknown. These findings open an important new approach to the study of the nature and evolution of these objects.

- The determination that a substantial fraction of the extragalactic radiation background may be due to scattered individual sources. This finding has important consequences regarding the question of an open or closed universe.

- The surprising absence of hot neutron stars at the center of supernovas (exploding stars), which requires new cooling mechanisms to be postulated for the remaining core of a supernova explosion.

- The discovery that the coronas of certain main sequence stars emit X-rays with greater intensity than had been predicted by current theories. This finding requires a substantial rethinking of energy-transport mechanisms in stars.

"Based on this early indication of significant results, I have authorized an extension of the observatory mission in order to continue this exciting series of investigations," Dr. Mutch said.

A continuing activity with the observatory is NASA's Guest Investigator Program in which scientists use data from the spacecraft for studies not directly related to the planned objectives. Since the launch of the observatory, about 400 guest investigator proposals have been received by NASA. They were submitted by more than 80 groups from the United States and other countries, including Great Britain, France, Germany, Italy, Russia, India and Japan.

The Einstein Observatory is the second in a series of three spacecraft designed to survey the sky for X-ray, gamma-ray and cosmic-ray sources.

The first observatory, launched in 1977, conducted an all-sky survey and mapped about 1,500 X-ray sources, many of which were subsequently correlated with visible objects in the sky. It also measured, for the first time, the temperature of the uniform high energy X-ray background. Many scientists believe these X-rays originated from a universal hot plasma thought to constitute a major fraction of the mass of the universe.

The third high energy observatory, launched last September, is conducting an all-sky survey of cosmic and gamma rays, but at higher energies and from a higher orbital inclination than the first observatory.

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