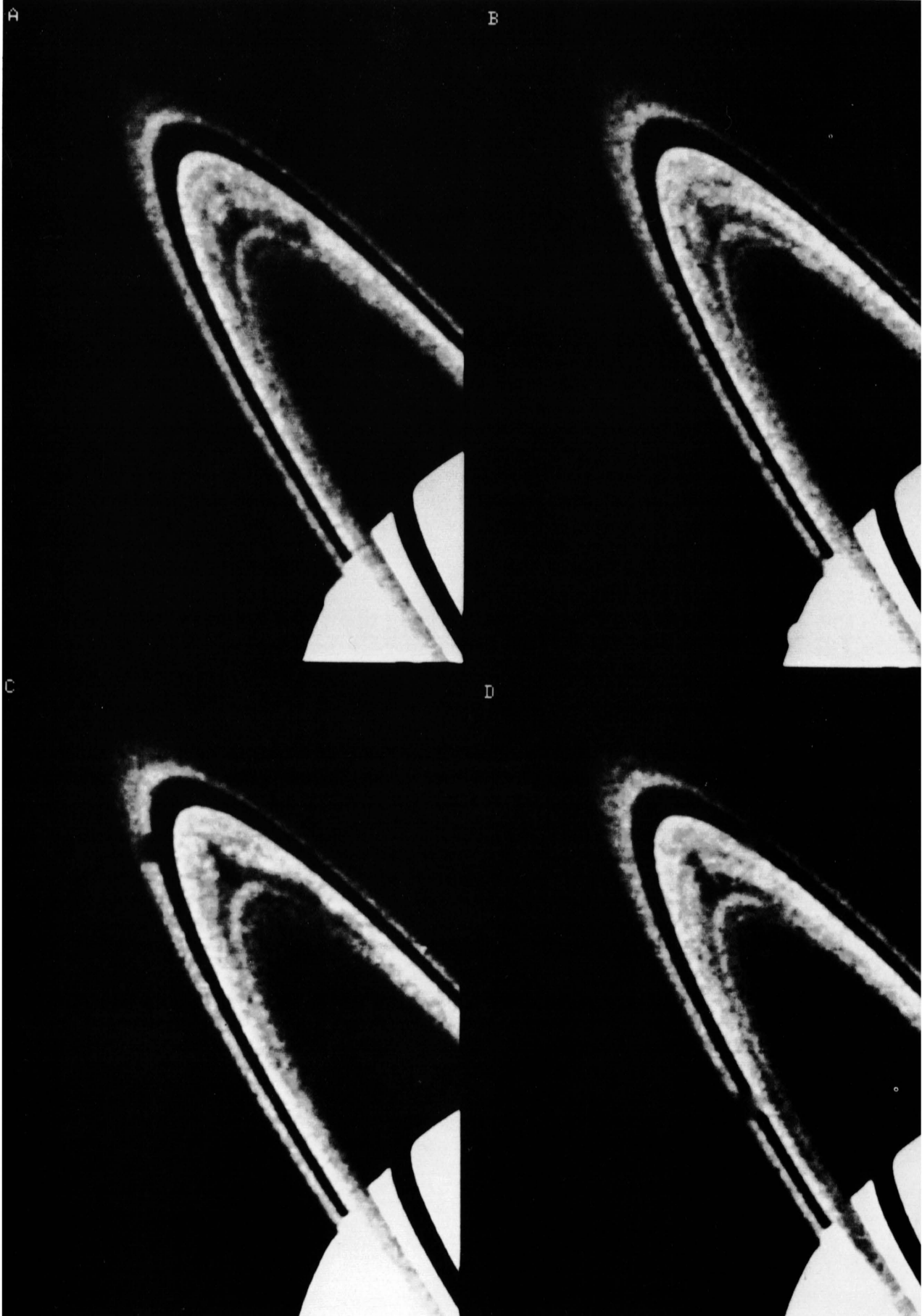


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National Aeronautics and
Space Administration

**Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California**

**Voyager 1-S-5
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New features never seen before in the rings of Saturn appear in these four photographs taken by Voyager 1 on October 4 and 5, from a distance of 51 million kilometers (32 million miles). The photos have been computer enhanced to bring out faint details in Saturn's rings. (Small, square smudged areas are reseau marks engraved on the camera, not features of Saturn or its rings.) These are the first photos to show irregular patterns in the rings. Visible in these photos of the rings are patterns of dark, fingerlike areas that rotate around the planet like spokes in a wheel. Studies of the photos reveal that some retain their identities for several hours, despite the fact that at the inner edge of the new features, ring objects orbit Saturn once in 9½ hours, while particles at the outer edge take more than an hour longer. Therefore, spokelike features like these should be erased as the inner objects race ahead of the outer ones. But some spokes have been observed that last three or more hours. Voyager imaging-team scientists have not yet solved the question of how these spokes develop or why they remain for hours. It is unlikely, according to the scientists, that the new features are composed of dark objects. Rather, they are more likely to be regions where there are fewer objects, reflecting less light, than other parts of the rings.

Voyager Mission Highlights

Two unmanned spacecraft, Voyagers 1 and 2, completed highly successful fly-through encounters of the Jovian System on March 5 and July 9, 1979, respectively. The twin spacecraft will rendezvous with Saturn in November 1980 and August 1981. Voyager 2 will continue on to Uranus for a 1986 encounter. Both spacecraft will eventually escape our solar system into interstellar space.

The historic Voyager encounters with Jupiter provided startling new information about the Jovian System. Jupiter's atmosphere is complex, with layers of colorful clouds above a deep atmosphere of hydrogen and helium. The atmosphere, more turbulent than had been expected, appears to be controlled by forces far below the visible cloud tops. The Great Red Spot, large enough to hold several Earths, is a tremendous atmospheric storm that rotates counterclockwise, with one revolution every six days.

The most spectacular sighting was the discovery of active volcanoes on Io, Jupiter's innermost Galilean satellite. The largest active volcano observed by Voyager 1, however, had become inactive by the time Voyager 2 arrived 4 months later. Additional Voyager discoveries include a thin ring of material around Jupiter, three new satellites, and auroras and cloud-top lightning bolts, similar to superbolts on Earth.

Voyager 1 will make its closest approach to Saturn on November 12 at 5:10 P.M. (PST). At that time, the spacecraft will pass 124,200 kilometers (77,200 miles) above the cloud tops. One of the primary targets is Titan, Saturn's largest moon. Voyager 1 will fly over Titan at 11:05 P.M. (PST) on November 11. Another primary target is Saturn's rings, which will be photographed in detail by both spacecraft.