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50 cents beyond 75 miles from New York City,
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Laserists Perform at the Planetarium

You are surrounded by a sky full of stars. A point of laser light, perhaps a spaceship, begins to buzz around the heavens, only to be crushed by a bright-green cosmic flyswatter. "Is there anybody out there?" the music asks, as the stars begin to whirl.

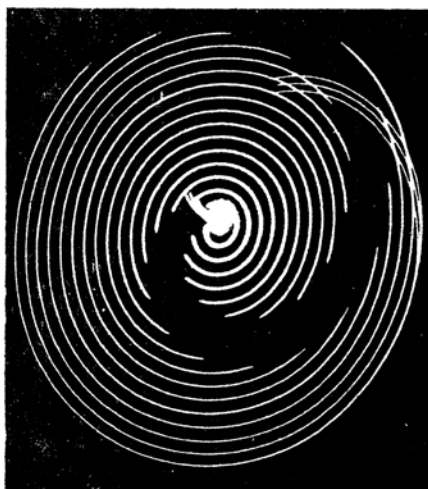
The event is "The Laser Show," a light show that plays weekend nights at the Hayden Planetarium. The show, which was created by Audio Visual Imagineering of Springfield, Va., is a light-and-sound concert of the music of Pink Floyd.

"The Laser Show" takes the hypnotic, pulsating geometrics of earlier laser shows and adds animated laser cartoons, more powerful lasers and a new 16-speaker sound system. The show, which had its premiere in February, sold out for the first three months of weekend performances. Larry Brown, a planetarium spokesman, says everybody from little kids to grandmothers seems to enjoy it.

Seeing or Hearing?

The trick to making a laser show, Doug McCullough, president and founder of Audio Visual Imagineering, said the other day is to choose popular, rhythmic music and to match the music very closely with the visual images. "When you're in there seeing a show," he said, "you don't know if you're seeing it or hearing it."

The mesmerizing imagery is broken into, from time to time, by little running men, who stretch, twist,



Light pattern from "The Laser Show" at Hayden Planetarium.

spin and lie down among the stars. Each is drawn by a single, continuous line of laser light.

"I'm a big fan of 1930's Disney animation," Mr. McCullough said. "We're trying to re-create, with lasers, the quality from the golden age of cartoons."

Although "The Laser Show" was planned — or "choreographed" — by Mr. McCullough and artists on his staff, it is performed by technicians called laserists, who inject their own creativity into each show the way a pianist interprets a Beethoven sona-

ta. The laserists' "instrument," called an image synthesizer, is a black box dotted with dozens of dials, levers and joy sticks.

One Laser, Five Beams

The synthesizer at the Hayden contains a single two-watt laser, whose beam is split by prisms into five vivid beams — white, green, yellow, red and blue — which can be projected individually as five separate beams. Each beam is guided by a scanner, a projection head that "draws" the shapes on the planetarium dome. The scanner traces each image over and over, repeating its path several hundred times each second. Because the beam moves so fast, the eye cannot perceive its movement. It sees only a continuous, pulsating curve.

The Virginia company is continually teaching its synthesizer to perform new tricks; look for even more technical ingenuity in the next show, which will replace "The Laser Show" in November.

"The Laser Show" continues weekend nights through November at the Hayden Planetarium of the American Museum of Natural History, Central Park West and 81st Street, on the IND's AA, B, and CC lines.

Admission is \$4.50; shows are Friday and Saturday nights at 7:30, 9, and 10:30, and they last 58 minutes. Come early: the 10:30 show often sells out. The number for more information is 873-1300, extension 206.