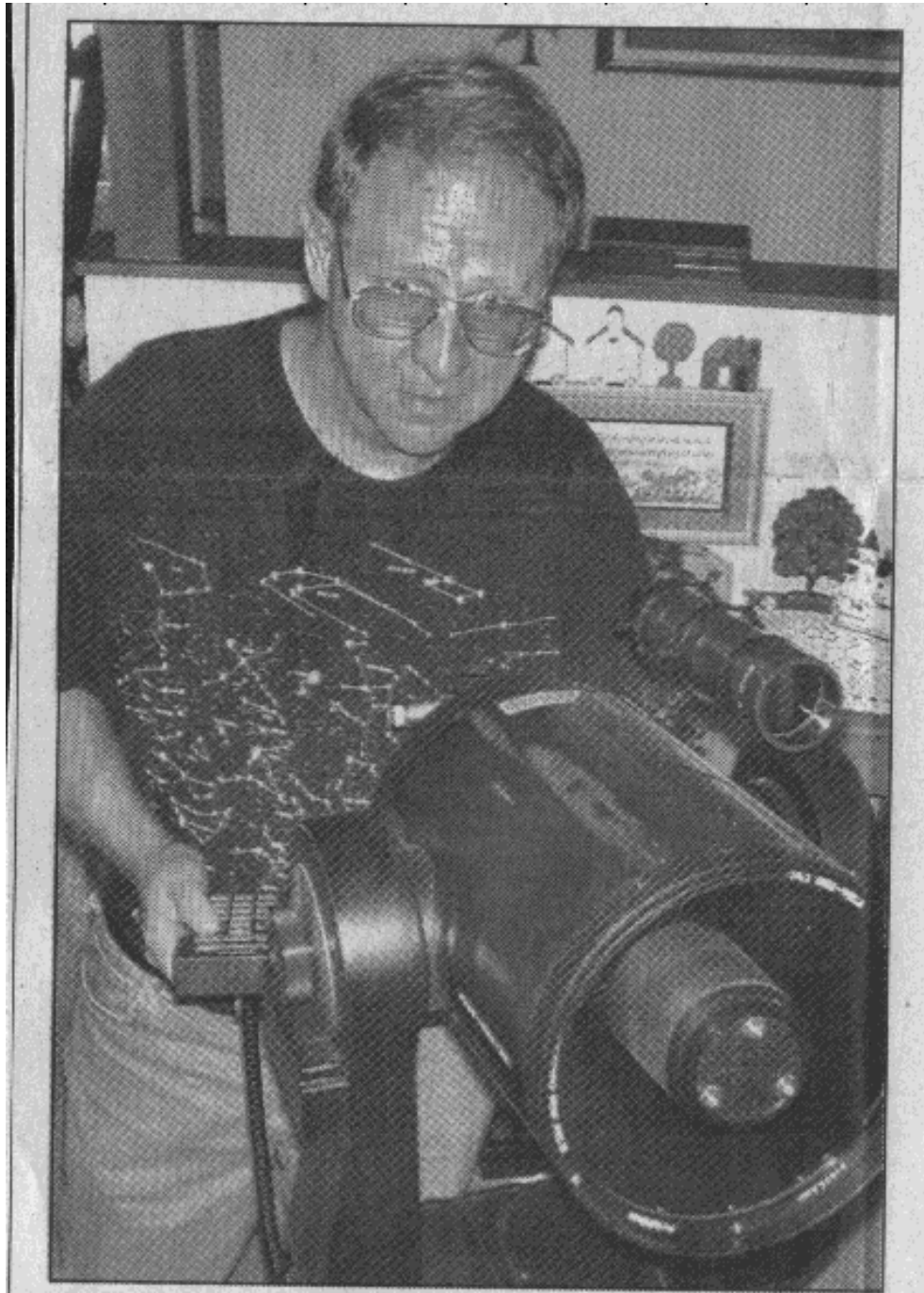


Nebraska City, Nebraska News-Press article on Quad-A work being started



News-Press photo by Dan Swanson

Eugene Lanning of Nebraska City has organized a group of 11 amateur astronomers to record the movements of Jupiter's four largest moons. The retired nuclear fuel specialist hopes to use the measurements to tell how many kilograms Jupiter weighs.

Nebraska City man assembles astronomers for Jupiter project.

BY DAN SWANSON
News-Press

A Nebraska City telescope will anchor an amateur astronomy project to determine the weight of the planet Jupiter.

Behind the telescope is Eugene Lanning, a retired nuclear fuel procurement specialist, who said his appreciation of the beauty in space must often wait for his scientific observation. "Some people say I have a fixation with measuring, but that's my way of knowing that I'm doing it right," he said.

Lanning and 10 other members of the American Association of Amateur Astronomy will gaze through the September sky to the four largest of Jupiter's 35 moons. By applying the moons' orbital periods to Lanning's mathematical formula, they hope to calculate how many kilograms the planet weighs.

Their results will be compared against the weight determined by

NASA to define how much velocity it would take to launch something from Jupiter and how much things from earth would weigh as they floated toward the gas planet's core.

After successfully measuring the distance of the earth to the moon in April, Lanning said he began looking for a new project that would involve astronomers

rather hefty step in the advancement of their skills by the end of September when we are done," he said. "It will be a stiff challenge, but I think we can pull it off."

Lanning, 56, got his first telescope in the eighth grade while living in northern California. He said he inherited some of his fascination with the sky from his father, who would point out the Auroras, meteor showers and an occasional comet.

Lanning made his first telescope while pursuing a degree in physics, but said he put the hobby aside for about 30 years while he raised his family. On the recommendation of his wife three years

ago, Lanning bought a telescope and returned his attention to space.

On his first night out with the new telescope he found himself measuring the diameter of Jupiter, for no other reason except that it was in the sky, he said. His real fascination, he said, has always been with double stars.

A visible star in the Big Dipper is actually one of three

**"Some people say I have a
fixation with measuring, but that's
my way of knowing that I'm
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—Eugene Lanning
Nebraska City resident

from around the nation. Helping with the complexity of tracking the Jupiter moons, he said, are astronomers in Indiana, Maryland, California, Texas and Illinois.

"We will have a diversity of people with different types of equipment, so I had to work out a method that not only worked for me, but anyone who had a desire to participate," Lanning said. "There are 11 astronomers in the United States that will take a

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stars that revolve around each other much like our planet moves around the sun, he said. He describes star clusters containing 10,000 to 100,000 stars each winding down to a point like a giant pin cushion in the sky.

There are 200 million stars in the Milky Way, but only about 3,000 can be seen with the naked eye.

With his telescope, that brings to view objects that are 21,000 times fainter than what can be

seen with the naked eye, Lanning has peered into distant galaxies looking for cosmic pinwheels and theorizing about dark matter and undiscovered dimensions.

"What we can see in the sky is only a fraction of the whole universe. To me, the whole thing is incredibly beautiful," he said.

Dan Swanson is a news reporter for the Nebraska City News-Press and can be reached at dswanson@newwestnews.com.