

The Celestial Skies

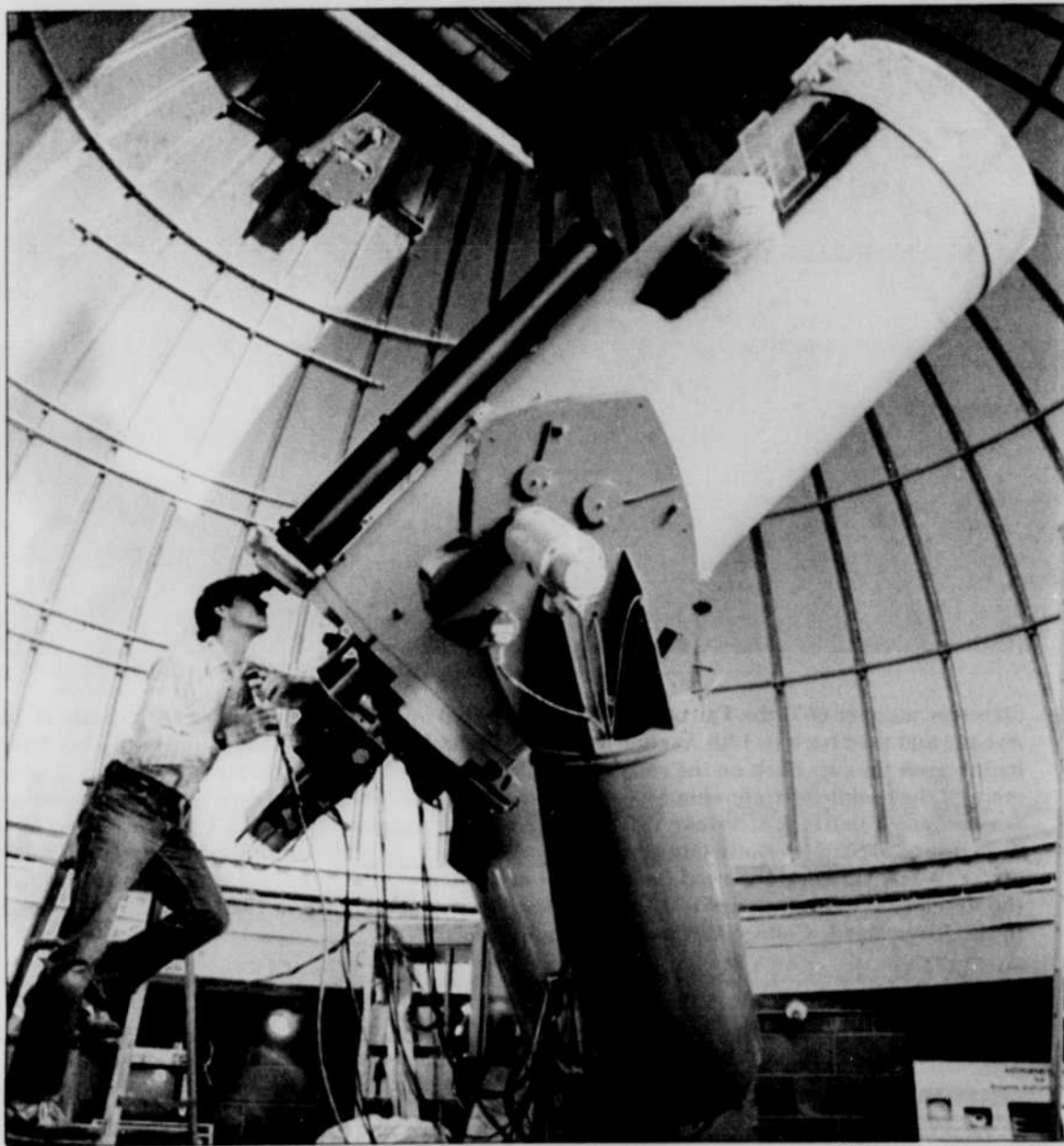


Photo by John Giustina

When you get up past the smog, clouds and glowing lights of the Willamette Valley and into the mountains of Central Oregon, the night sky becomes as clear as one of the area's many lakes.

Looking skyward from a peak, one is surrounded by sparkles of light, and even with feet planted solidly on terra firma, the sensation is one of a cosmic trout swimming in a vast lake of stars.

A flatlander might stop for a moment, marvel at the sight and then move on. A dedicated few, however, will spend years watching and studying the sky as they try to unravel the mysteries that have intrigued earth-bound humans for centuries.

Sixty-three thousand feet up and 35 miles southeast of Bend, astronomers carry on at the University's Pine Mountain Observatory. The observatory houses three optical telescopes, including a 32-inch Cassegrain reflector scope, which is the largest in the Northwest. Although small by international standards, Pine Mountain director Dr. James Kemp doesn't see size as being a drawback for the observatory.

The Physics department facility atop the mountain has played an important part in astronomical discoveries and research over its 20 year history. "One advantage with a small observatory is that you can make studies of certain objects that light varies from on a time scale anywhere from days to years," Kemp says. He goes on to point out that larger observatories, which are always in demand by large numbers of astronomers, can't always carry on long-term

studies.

Most of the research Pine Mountain has produced involves extended observation combined with special techniques. And sometimes, this painstaking research pays off.

In 1970 Kemp boosted Pine Mountain's reputation by discovering a white dwarf star in the largest magnetic field ever found in a celestial body — a gravity about ten million times the earth's.

"It was kind of an accident," Kemp claims modestly. "I happened to have the right idea and the right equipment at the right time."

The facilities have also nurtured important work in such diverse areas as spacecraft tracking, mysterious "black hole" star systems, sun spots and pulsating stars.

Currently, researchers at Pine Mountain are scrutinizing tiny light changes around bright stars to find evidence of planets around them. This is the first step in the search for extraterrestrial life, the existence of which Kemp calls "an inevitability".

Gary Henson, graduate research assistant at the observatory, agrees.

"There's too many stars, too many galaxies, too many possibilities for life of any form to be present in just one place," he argues.

Henson is just one of the future astronomers gaining practical experience at Pine Mountain. As part of the Physics department's astronomy program, the observatory is a training ground for graduate and

Continued on Page 10

UO Bookstore



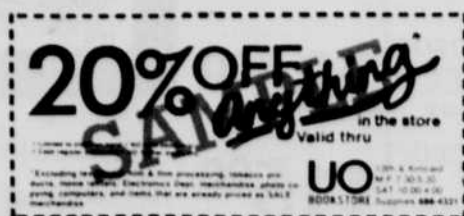
**EXTRA BUCKS
FOR BOOKS**

10% EXTRA CASH
for books needed
for future terms.

(10% PLUS the usual 50% buyback price.)

JUNE 5th-13th ONLY

PLUS: 20% OFF Coupon
Per Buyback Customer June 8-13th, 1987



Turn your unwanted books into cash—
it's better than packing them home.

**UO
BOOKSTORE**

13th & Kincaid
M-F 7:30-5:30
SAT 10:00-4:00
686-4331

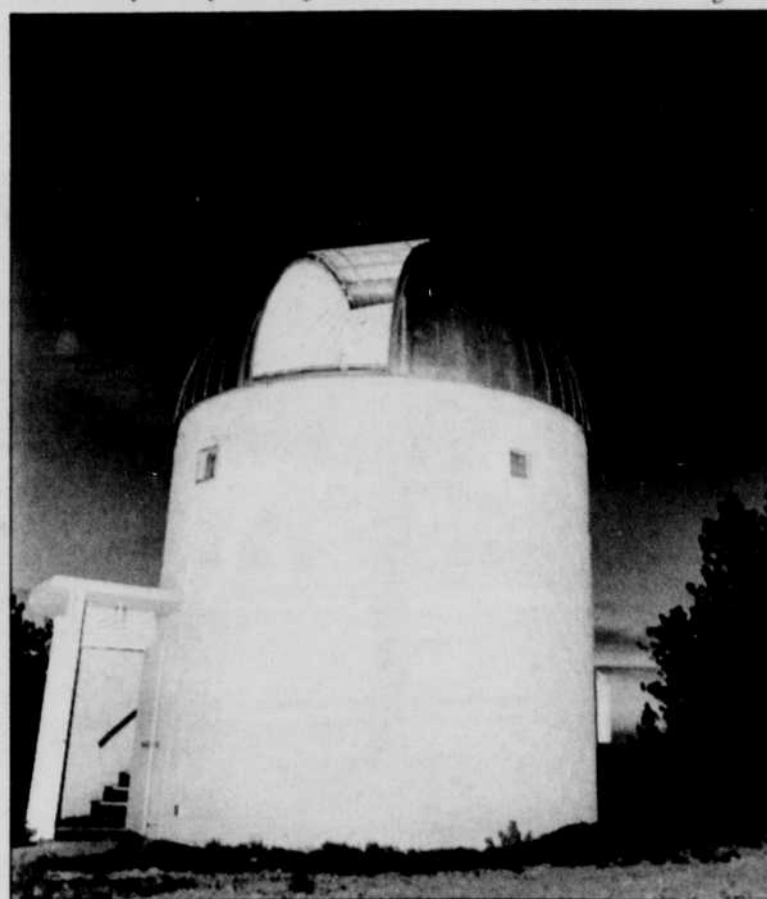


Photo by John Giustina

Gary Henson peers through the 32 inch Cassegrain telescope, the largest telescope in the Northwest (top left). The tower of the 24 inch Cassegrain telescope stands out against the night sky (above).