

# Fall's in the sky; harvest moon due

The official beginning of fall at 11:30 p.m. on Sept. 22, a "harvest moon" on Sept. 27 and a "penumbral eclipse" on the same night are among astronomical highlights of September, according to University of Michigan astronomer Hazel M. Losh.

The beginning of fall on Sept. 22 is marked by "the autumnal equinox, when the sun in its apparent yearly journey crosses the equator on its way south," says Ms. Losh.

During the autumnal equinox, "the day and night are said to be equal," according to the astronomer. But this is not strictly true, she notes, because, as a result of the earth's atmosphere refracting the sun's light, the day and night will really be equal on Sept. 25.

"Although on the 22nd, the sun is really above the horizon for 12 hours it is visible for 11 minutes longer," notes Ms. Losh. "As the sunlight enters the atmosphere, it comes to a more dense region, and its light is bent or refracted, so that it appears lifted into view, making the sun visible." This phenomenon occurs before the sun rises above the horizon and after it sets.

Ms. Losh notes that "the moon that comes to full phase on Sept. 27 at 4:17 a.m. is designated as the harvest moon. The harvest moon is defined as

the full moon that comes nearest the date of the autumnal equinox."

Ms. Losh says that in late September "the nearly full moon will rise at approximately the same hour for several nights in succession, and hence there will be an unusual amount of bright moonlight in the early evenings. The harvest moon is likely to appear larger than usual and take on quite a reddish appearance near the horizon."

Another highlight of the month, says Losh, is that the full moon of Sept. 27 will enter "penumbral eclipse."

"In penumbral eclipses the dimming of the moon is so slight that usually they go unnoticed, even by astronomers. The penumbra or partial shadow is where the light from the sun is partly but not wholly cut off by the earth," according to the U-M astronomer.

On Sept. 27 the moon will reach the penumbra at 2:19 a.m., with this partial shadow remaining until 6:41 a.m. The "most pronounced dimming, or middle of the eclipse," will come at 4:30 a.m., says Ms. Losh.

Prominent constellations of the month include Pegasus and Andromeda in the eastern sky, with Cassiopeia, Cepheus and Perseus farther to the north, according to the astronomer.



## Art finalist

Marian High School student Marilynn Loria of Troy and Walter C. Lenhard Jr., Chairman of the Board of United Insurance Co. of America, hold Loria's award-winning entry "Edwin's Shed" in the company's 1978 high school calendar art contest. Nearly 600 high school students nationwide competed in the sixth annual contest conducted by the firm.

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## Architects guide American Center tour

Architectural Sunday for September will feature a public tour of the American Center designed by Smith, Hinchman & Grylls, architects.

Open to the public from 2:5 p.m., Sunday, Sept. 25, the building is located in Southfield, at 2777 Franklin Road, southwest of the intersection of I-96 and Telegraph Road.

The American Center complex comprises a 25-story office building, an adjoining two-level retail mall, a two-level 180-car underground parking garage, and a paved and lighted outdoor parking area for 1,500 cars. The top eight floors of American Center accommodate American Motors' corporate headquarters. The other remaining floors are leased to a variety of other tenants.

## WAYNE STATE UNIVERSITY BABY-SITTING SERVICE

will open September 29 when fall quarter classes begin.

The service will operate at minimal cost from 8 a.m. to 6:30 p.m. Monday through Friday for children through 6 years of age, while their parents are enrolled in classes at WSU.

Final registration for classes takes place September 22, 23 and 26.

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For student registration or admission information, call 577-3577.

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