

# Eclipse of Moon Is Saturday Night In Pacific Time Belt

By FAY BENTLEY

"Will there be an eclipse of the moon this winter?" recently inquired a young lad. "On, boy!" he exclaimed when given an affirmative reply. A number of questions then followed.

"What is an eclipse? How long will it last? Just when will this eclipse occur? Why don't we have one every month? Will the moon entirely disappear from sight?"

We are all aware that any non-luminous object upon which our sun shines will cast a shadow and the earth and moon are no exceptions to this rule. Because they are shaped like a ball or sphere, their shadows resemble giant ice cream cones, which, in the manner of the poem, constantly "go in and out" with them.

The average length of the earth's shadow is about 837 thousand miles while the shadow of the moon varies from 228 thousand to 226 thousand miles. Thus, we can mentally picture the earth and moon as representing the ice cream in two huge, black, ice cream cones.

Whenever the sun, earth, and moon are in a straight line with the earth in the middle, the shadow of the earth will fall upon the moon and a lunar eclipse will occur. At this time, a line extended from the sun to the earth and straight on into space would touch the moon. This also causes the phase of the moon called the full moon.

Knowing that Old Luna makes one trip around our planet every month it seems that a lunar eclipse should occur every time the moon is full. However, we all know this is not the case. It is never possible to have more than three lunar eclipses in any single year and a year may pass without any eclipse of the moon.

It is possible for the sun, earth, and moon to be lined up with the earth in the middle in such a way that we have a full moon without the moon getting in the earth's shadow. That is what usually happens.

### Passes Near Shadow

Because the orbit or path followed by the moon as it encircles the earth is tilted in relation to the earth's orbit the moon almost always passes above or below the long cone-shaped shadow cast by our planet. At such times a straight line from the sun to the earth if extended on into space would pass either below or above the moon.

The only time that the moon can get into the earth's shadow, or the moon's shadow can touch the earth, is when both earth and moon are near either one of the two places where the moon's orbit crosses above the earth's orbit.

Three conditions are necessary to produce a lunar eclipse: (1) There must be a full moon as at this time the earth's shadow extends in the direction of the moon. (2) The moon must be near one of the two points where the moon's orbit crosses above the earth's path. (3) The earth must be near this same crossing point or node.

The type of eclipse that occurs depends upon the distance of both earth and moon from the node or crossing point of the two orbits. If only part of the moon gets into the shadow of the earth, a partial eclipse results. If the moon is entirely within the shadow, there is a total eclipse.

The anticipated lunar eclipse will begin Nov. 17 in the Pacific standard time belt. At 8 p.m., old Luna will enter the penumbra or lighter part of the earth's shadow. However, naked eye ob-

servers will not be able to discern any difference in the face of the moon till it begins to slip into the dark cone-shaped umbr of the shadow. This will be about 9:02 1/2 p.m. Totality begins at 9:08 p.m. This means that the entire moon is within the umbra or dark part of the shadow.

### Middle of Eclipse

The middle of the eclipse will be reached 40 minutes later, at 10:48 p.m. when the moon will be half way through the umbra. The totality period ends at 11:27 p.m. when the moon starts to emerge from the dark portion of the shadow. By 12:33 a.m., the entire moon is out of the umbra and for earth-dwellers without a telescope there is nothing more to see. However, the moon does not leave the penumbra till 1:35 a.m., in the early morning of Nov. 18, so the lunar eclipse officially ends at that hour.

Of 1936's four eclipses only the one just discussed is visible in North America, but this will be well worth watching; and 9 p.m. Saturday should be a convenient time for a large majority of people to watch our moon as it travels more than 5,000 miles through the darkness of the earth's shadow.

Usually, the moon does not become invisible during its dark journey but is dimly illuminated by earthshine. However, the exact color depends on conditions at the time of the eclipse. It is possible for it to become copper colored, orange, reddish, gray or black.

## Nervous Driver Gets Assist From Police

Traverse City, Mich.—UP—Airman Second Class Edwin Corbin appeared to be driving "nervously" so a state police patrol car stopped him.

Corbin told Troopers Edward Hill and Ronald Behrens he was nervous because he was to be married in a short time but couldn't find a justice of peace or best man.

The troopers took Corbin to Justice Charles Mahn of Traverse City and then witnessed the marriage of the nervous airman and Ritha Bersh of Traverse City.

## Four Vote Recounts Requested in Oregon

Salem—UP—Four requests for vote recounts have been filed with the state elections bureau here, one of them involving a state Senate race.

An official canvass of the votes was requested in Tillamook and Lincoln counties yesterday by supporters of Republican Warren McMinimee. The unofficial count gave Democrat Andrew J. Naterlin, Newport, a slim victory over the veteran legislator.

Other recounts requested were in Clackamas, Curry and Linn counties. Stan Skoko was a loser to Republican C. E. Latourrette for Clackamas county judge and Raymond Tomlinson, Linn county treasurer, was defeated by Democrat Evelyn Downing in the other contested race. A request for a recount had been filed earlier in the contest for Curry county assessor.

## Plains States Get Snow Cover

By UNITED PRESS

A massive cold front pushed rapidly across the plains states early today to cover the western half of the nation while the season's second severe snowstorm struck the Rockies and Northern Plains.

The cold snap extended from the Pacific Coast to the Northern Great Lakes and Northwest Texas, and was expected to move slightly eastward into Lower Michigan and Illinois and through Arkansas into Louisiana.

Meanwhile, snow swept through Colorado and Wyoming into Nebraska, the Dakotas and Western Michigan. Amounts were generally less than four inches, but heavy snow struck parts of South Dakota.

Strong northwesterly winds caused drifting snow, and weathermen warned that road conditions might be hazardous in the snow areas.

Twenty-four inches of snow was reported in South Dakota's Spearfish Canyon and 15 inches at Deadwood. Schools closed early in many communities Wednesday as the snow began to drift.

### COOPERATIVE DOG

Buffalo, N. Y.—UP—The thief, who made off with some \$1,500 from the Bidwell Grill, apparently was not bothered by the proprietor's five-year-old boxer dog. Co-owner Salvatore T. Zafuto said that, judging from paper wrappings found at the scene, the burglar had brought along some meat and tossed it to the watchdog to keep the animal occupied while he ransacked the tavern.

## Marine Corps Starts New Leave Policy

Washington—UP—The Marine Corps is putting into effect a new leave policy which will give recruits an additional five days at home after completing basic and advanced training.

The corps announced Wednesday that recruits will be given 15 days leave rather than the 10 days currently authorized. This leave will be granted upon completion of 12-week recruit training and four-week individual combat training.

## Less Meat Expected; Higher Prices Due

Washington—UP—The Agriculture Department says there will be slightly less meat available in 1937. It will sell at higher prices than in 1936.

"Hog slaughter especially will be less than in 1936," the department said Wednesday. "Fully as many cattle likely will be slaughtered as in 1936, but average carcass weights may be enough lighter to pull down the total output of beef to some extent."

"Prices for hogs will be higher than in 1936. Those for cattle are expected at least to stay above their lowest points of 1936 and may average slightly above that year. With little change in slaughter in prospect, prices for sheep and lambs also might average slightly higher in 1937."

Texas, in 1935, produced natural gas from 11,793 gas wells and 111,644 oil wells.

## Killing of Infants Brings Term in Prison

Niantic, Conn.—UP—Virginia Jaspers, 33, began a 10 to 22 year term in the state prison for women today for fatally shaking two infants whose crying annoyed her.

The 220-pound unlicensed nurse had pleaded guilty to two counts of manslaughter Oct. 24. Superior Court Judge William Shea sentenced her Wednesday in New Haven to 10 to 15 years on the first count and seven years on the second.

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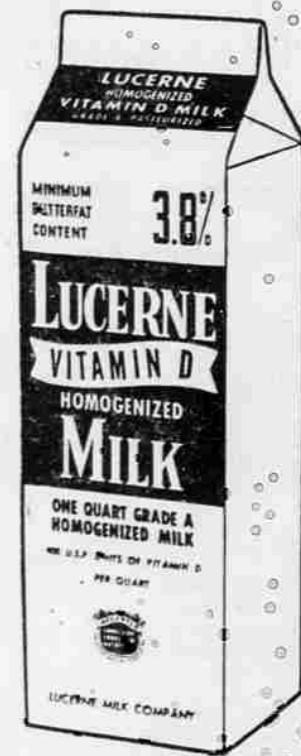
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## Klamath Indian Due Money From Tribe

Sacramento—UP—A woman member of Oregon's Klamath Indian tribe was told yesterday she will receive between \$20,000 and \$40,000, and thought about the sum in county jail.

Mrs. Lounita Baker Felix, 50, a full-blooded Klamath tribeswoman being held for stabbing a man, was informed by county probation officer Mery B. White that under recent federal legislation she could leave the tribe and collect a share of the band's assets.

Federal officials told her the portion would come to between \$20,000 and \$40,000. Now all she must do is wait to get out of jail.

Mrs. Felix will be sentenced in Superior Court to either prison or a county jail term for stabbing a man in a tavern tussle last month.

"Now I want to get out," she said. "I want to start over. I want to go home and build a home."

### BACKFIRE

Rochester, N. Y.—UP—Robert Doane, 41, ended up in the hospital with a fractured skull when he took a lusty swing with a ledge hammer while breaking up wood. The sledge hammer became entangled with an overhead clothes line and then struck him over the right eye.

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