The Eclipse Of The Sun On May 9th

Heavenly Body Will Be 90 Per Cent. Obscured from the People of Zamboanga at 3:26 O'clock, Post Meridian

At the request of the editor, the present writer asked the Director of the Weather Bureau for information regarding the coming eclipse, especially as affecting Zamboanga. In reply Fr. Selga sent a twenty-four page booklet with charts, maps and general information, and gave some specific details about the eclipse as it will appear in Zamboanga. His letter, dated March 27, 1929, is as follows:

"I am more than pleased to send you the pamphlet on the eclipse of May 9, 1929. I hope you will find therein all the information you may wish for yourself and your friend of the MINDANAO HERALD. As you see in the map, mid-totality is due at Zamboanga at 3:26 p. m., and the sun, although not totally eclipsed, will be 90% obscured at Zamboanga.

Sincerely yours, etc.,

MIGUEL SELGA."

To this splendidly prepared booklet, and to the Encyclopedia Britannica and to books on astronomy, the scientifically inclined may go for technical information. The present article, prepared by a layman in astronomy and intended for laymen, presents merely some of the more popular phases of the question. The preparations that have been made for observing the phenomenon and a few extracts from Fr. Selga's pamphlet will be found in another article in this issue.

The Shadow of the Moon

First then, what is an eclipse of the sun?

What is an Eclipse and Why?

By Father Thomas J. Murray, S. J.

A solar eclipse has been defined as the complete or partial obscuration of the disk of the sun by the interposition of the moon. In other words, the moon passes between the sun and the earth and so close to the earth that the moon's shadow falls on some portion of the earth's surface.

Bear in mind that the sun is a huge body, the moon is comparatively small, smaller in fact than the earth. Hence it is only when the moon is relatively near the earth that the sun is eclipsed.

Moreover the shadow of the moon falls on only part of the earth. This shadow on May 9th will be approximately 110 miles wide. Only those observers, then, who are within this belt on the earth's surface will see a total eclipse of the sun. People in Cebu, Iloilo and places of like latitude in the Philippines will see the sun totally obscured. People in Manila and in Zamboanga will see the sun partially obscured. People far to the north or south will not see the sun obscured at all.

To illustrate with a homely example:

Like a Bird's Flight

Three men are standing ten feet apart. All are looking at a large building. A bird flies up from the ground and passes close to the man in the middle. As it crosses his line of vision, the building is obscured or eclipsed. The men on his right and left both continue to see the building. For them there is no eclipse. The building is the sun. The bird represents the moon. The man whose vision was temporarily obscured is the observer at Cebu or Iloilo. The men on the right and left are observers at the north or south ends of the earth.

Statistics often confuse. Nevertheless, at the risk of becoming obscure, I am going to quote in round figures the relative size of the sun, the earth and the moon.

The sun is approximately 886,000 miles in diameter, the earth is about 8,000 miles in diameter and the moon is about 2,000 miles in diameter. So that even if the moon were right up close to the earth, its shadow would not completely cover the earth. On the other hand, if the moon were right close to the sun it would appear a mere speck scarcely visible even with a telescope. For the sun is some 95 million miles away. Actually the moon's average distance from the earth is only 240,000 miles.

Eclipses of the Ages

Eclipses are among the most interesting phenomena presented to us by the heavenly bodies.

In all ages, when an eclipse has taken place, it has excited the profound attention of the learned, and the fears and superstitions of the ignorant. More than a thousand years before the time of Christ we have a historical record of an eclipse.

One occurred in Babylon on June 20, 1069, B. C. In B. C. 760 another total eclipse is recorded at Nineveh, on June 14. Thales, a celebrated Greek sage, predicted the eclipse that took place on May 28, 584 B. C. Getting into the Christian era, the Anglo-Saxon Chronicle mentions eclipses observed in England in the years 538, 540, 664, 878, 1133, 1140, 1185 and 1191 A. D. Every important eclipse from 1803 to 1999 is given in the Encyclopedia Britannica, together with the exact time, place and duration of the eclipse.

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