

WHERE MOON'S SHADOW STRIKES EARTH

The black line is the narrow path of total solar eclipse. The area of the earth from which the partial phases of this phenomenon are visible is also shown on this map.

Paths of Totality Crosses Popular Vacation Section

Hundred-Mile-Wide Shadow Hits Earth First Among Eskimos But Later Traverses Quebec and Cape Cod Region

ILLIONS of people are expected to view the total eclipse of the sun visible in Eastern Canada and New England. Probably never before, with the possible exception of the eclipse seen in New York, Pennsylvania and the New England states on January 24, 1925, has the attention of so many been concentrated on such a celestial event. Not only is the hundred-mile path over which the eclipse will be seen a well settled region, but it is also a popular vacation resort. The regular population will be greatly augmented by the large number of summer tourists, many of whom are regular visitors, while others are especially attracted by the eclipse.

Begins in Arctic Ocean

The greater part of the eclipse path, however, is over uninhabited territory. The shadow of the moon will first touch earth in the Arctic Ocean, north of Taimir Peninsula, in Northern Siberia, at sunrise, which will be at 2:04 p. m., Eastern Standard Time. Then it will travel northward, passing within a few hundred miles of the North Pole. Starting south, it will traverse more of the

Arctic Ocean, northern Canada, Hudson Bay and James Bay. So far, it will have passed over few human beings, including perhaps some Eskimos, an occasional explorer and some trappers. But then it enters the province of Quebec, and begins to reach civilization. A little town named Parent, on the Canadian National Railway is in the path. Then it comes down to the St. Lawrence River, covering that river from Montreal to a point east of Three Rivers, but not as far as the city of Quebec. In southern Quebec it crosses Lake Memphremagog, including the town of Magog.

Entering the United States, it passes over northwestern Vermont, Montpelier being right on the southern edge of the path. It covers all of New Hampshire, except the southwestern corner. Southern Maine, and northeastern Massachusetts are included with such points along the coast as Salem and Gloucester, Mass., Portsmouth, N. H., York Harbor, Kennebunkport, Biddeford, Portland, Boothbay and Newagen, Maine. After crossing Massachusetts Bay, the edge of the shadow crosses Cape Cod, including Provincetown. Chatham is the last bit of land that it touches. Then the shadow

passes out to sea, and ends in mid-Atlantic, at a point in longitude 41 degrees west and latitude 28 degrees north, at sunset, which comes there at 4:03 p.m., Eastern Standard Time. Thus, less than two hours will have been required for the 6,000-mile trip.

Red Flames

To a person in the region crossed by the shadow, the dark disc of the moon completely covers the sun's disc, and the sun's outer envelope, the corona, comes into view. Red flames of hydrogen and other gases, shooting out from the sun to heights of hundreds of thousands of miles, may also be seen. The sun obscured, a sudden darkness comes over the earth, for the short period during which the total eclipse lasts. Altogether, it is probably the most impressive of natural phenomena.

Of course, if the sky is cloudy, the eclipse will not be visible from the ground, and every eclipse observer, whether layman, or professional astronomer, has to take a chance with the weather. But records made over recent years for afternoons at the end of August indicate that the chances for clear skies are somewhat better than even, perhaps about 60 per cent., from Quebec south. Even Mt. Washington, which is 6,288 feet high and in the center of the path, has about a 30 per cent. chance of clear weather. And this is better than the chances were on January 24, 1925, when the weather behaved beautifully.

Science News Letter, July 30, 1932

BOOKS

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