

The Eclipse of March 7, 1970

Maria Mitchell, the first recognized woman astronomer, would have been delighted had she been permitted to live to watch the Eclipse of March 7, 1970, pass over her birthplace on Nantucket Island. She also would have been thrilled to know that more Americans witnessed the Eclipse of 1970 than there were people in the United States in 1869. This was possible because the Eclipse of 1970 was a typical 85-mile wide shadow that passed along the East coast of the United States over the Florida Gulf Coast, Okefenokee Swamp, Georgia, the Carolinas, Norfolk and Virginia Beach, Nantucket, Nova Scotia, and Newfoundland.

The contrast that 100 years have made in mankind's knowledge of the sun and moon has been tremendous. In 1869 a score of well-known astronomers, with their photographers and scientific associates, hastened to strategic points in Iowa to take notes and make a permanent record of the total eclipse on August 7. In 1970 hundreds of astronomers hastened to Mexico to catch what they hoped would be the greatest and most significant details ever secured from a total eclipse of the sun.

One of the last total eclipses of the sun that was viewed in the United States was back in 1878, and astronomers had to go to Colorado and Wyoming in the Rocky Mountains for the best view. Their next opportunity to view a total eclipse in the United States was a long way in the future—54 years—and few if any astronomers of 1970 would be around to see it. This would occur in 2024 when a total eclipse would follow a narrow band covering the United States from Texas to Maine. It will be a long time after 2024 before Iowans would witness a total eclipse over their own backyards.

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A JAMES VAN ALLEN SPECIAL

After completing the above, the writer accompanied Dr. James Van Allen, noted astronomer at the University of Iowa, to the Physics Library, where they consulted Theodore Ritter von Oppolzer's "Canon Der Finsternisse" (1887) the authoritative catalogue of eclipses from 1207 B.C., to 2161 A.D. From this source, we found the following total eclipses touching some part of the United States would occur up to 2024 A.D.

- 7-10-1972—Alaska and the Northern Canadian Provinces
- 2-26-1979—Washington, Idaho, Canada, Hudson's Bay
- 8-21-2017—Directly across the Central United States
- 4- 8-2024—Mexico, Texas, Southeastern United States