

## **THE FIRST BRITISH ECLIPSE EXPEDITIONS**

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Expeditions to observe total solar eclipses in the nineteenth century were aided by concurrent instrument advancements, improved global transport links, and generous state support for scientific enterprises. This paper discusses the origins and early endeavours of British astronomers to observe total eclipses abroad, spearheaded by the Astronomer Royal, George Biddell Airy.

After Francis Baily reported unusual beads and threads in an annular eclipse over Scotland in 1836, Airy, along with his wife Richarda, travelled to Northern Italy to observe the total eclipse of 1842. A particularly troublesome cloud intermittently covering the sun led to conflicting and unsatisfactory results. Undeterred, Airy mobilised a massive international campaign to observe the total eclipse in 1851, visible over Sweden and Norway, the first large-scale operation of this kind by British astronomers. Despite financial support from the Admiralty, comprehensive instructions for observations with detailed maps, and carefully arranged observing stations across Scandinavia, astronomers were stymied by cloudy weather and a lack of clear results. However, the organisational and diplomatic success of this mission led Airy to organise another attempt for the eclipse over Spain in 1860, this time additionally granted the use of an Admiralty steamer. Hailed as a triumphant success, a precedent was established which included expectations of liberal financial support and Admiralty ships. While Airy generally opposed later expeditions, the franchise he originated took on a life of its own as British astronomers hatched even more ambitious plans to observe eclipses more frequently and travel even further abroad.