

# Biographical Encyclopedia of Astronomers

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Bliss, Nathaniel

Born Bisley, Gloucestershire, England, 28 November 1700

Died London, England, 2 September 1764

Nathaniel Bliss was a Savilian Professor of Geometry at Oxford and the fourth Astronomer Royal at the Greenwich Observatory. Bliss (named after his father, a Bisley gentleman) received his BA in 1720 and MA in 1723 from Pembroke College, Oxford. After taking holy orders, he became rector of Saint Ebbe's Church in Oxford in 1736. He also married and had a son, John, in 1740. Bliss replaced Edmond Halley as Savilian Professor of Geometry upon the latter's death in 1742, and in the same year became a Fellow of the Royal Society

Soon after his appointment at Oxford, Bliss began a correspondence with James Bradley, third Astronomer Royal. The correspondence began with a discussion of the Jovian satellites and lasted for 20 years until Bradley's death in 1762. Bliss also frequently visited Bradley at the Greenwich Observatory and even assisted him on several occasions. Bliss also worked for and with George Parker, second Earl of Macclesfield, on various astronomical problems. Macclesfield, a Fellow of the Royal Society from 1722 and its President from 1752 until his death in 1764, was an accomplished astronomer with his own observatory and assistants. In 1744, Bliss sent Macclesfield a letter requesting that he observe a comet from his observatory at Shirburn Castle, while Bliss, at Greenwich Observatory, made his own meridian observations of the comet (C/1743 X1) approaching the Sun. On June 6, 1761, following Bradley's instructions, Bliss also observed the transit of Venus when Bradley was unable to do so due to his poor health. Based on his observations, Bliss calculated the Sun's horizontal parallax to be 10.3 inches (the modern figure is 8.8 inches) and Venus's horizontal parallax to be 36.3 inches. The results were published the following year in the *Philosophical Transactions of the Royal Society*. Bliss also reported to the Royal Society the observations of the same event made in Bologna by the Italian astronomer Eustachio Zanotti.

Bliss's appointment as Astronomer Royal in 1762 following Bradley's death lasted until Bliss's own death in 1764, marking the shortest term of any Astronomer Royal. Because of his brief two-year tenure, Bliss left behind fewer observations and calculations than his predecessors. Moreover, his work at the observatory was occasionally interrupted because he had retained the Savilian Chair and continued teaching, thus splitting his time between Oxford and Greenwich. He seems to have been more productive in astronomy before he became Astronomer Royal, although he did observe a solar eclipse in 1764, the results of which were published in the *Philosophical Transactions*. Bliss also converted John Flamsteed's Sextant House into a small observatory specially designed to make room for a 40-inch movable quadrant, although the new observatory was completed only after his death

Bliss had a great interest in improving clocks. During Bliss's tenure at Greenwich, Nevil Maskelyne and John Harrison participated in the second historic trial of Harrison's marine chronometer number 4 in the West Indies. Maskelyne returned from this trip in 1764 to succeed Bliss as Astronomer Royal.

After Bliss's death, his widow initiated a continuation of his lectures by organizing a popular lecture of "Electrical Experiments for the Entertainment of Ladies and Others" that was delivered at Oxford on 21 May 1765 by Thomas Hornsby, successor to Bradley as Savilé

Professor of Astronomy. Furthermore, the Board of Longitude regarded Bliss's work on the problem of longitude (made with his assistant, Charles Green, who had also served as Bradley's assistant) as important and useful. Since it was considered private property, the Board purchased this work from Bliss's widow and stored it in the Greenwich Observatory. In 1805, Abram Robertson, Savilian Professor of Geometry, appended Bliss and Green's work (including transits of the Sun, planets, and fixed stars over the meridian; meridian distances of the fixed stars from the zenith; and apparent right ascensions of the planets) to the second volume of Bradley's observations. The first volume had been edited by Hornsby in 1798—entitled *Astronomical observations made at the Royal Observatory at Greenwich from the Year 1800 to the Year 1800 XII*.

*Voula Saridakis*

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