

Astronomers of the Royal Observatory Cape of Good Hope

Fearon Fallows (1820-1831)



Fallows was the first director of the Royal Observatory. He supervised the construction of the buildings, aligned the instruments and made the first observations in spite of facing enormous difficulties.

Unfortunately, conditions at the Observatory were very primitive and unsanitary and he died at an early age. He was buried on the grounds where his grave can still be seen. This silhouette is the only image we have of him.

Thomas Henderson (1831-1833)

Henderson in spite of his short period at the Cape was responsible for a remarkable achievement: **the first observations that led to the distance to a star**. He was unfortunately slow to publish and lost priority to the German astronomer F.W. Bessel, even though the latter made his observations several years later.

The star that Henderson measured was Alpha Centauri, one of the brightest in the sky and still the second nearest known, at 4.4 light years.

Unfortunately, there is no surviving picture of him. He resigned his post in protest at the poor conditions under which the Cape observers had to live and returned to his home in Scotland, where he became Astronomer Royal.

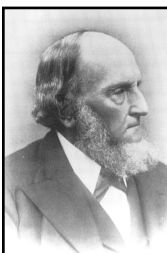
Thomas Maclear (1833-1870)

Maclear during his long term of office concentrated mainly on the measurement of star positions. In addition he carried out an elaborate survey to check whether the earth was really pear-shaped as had been suggested by the French astronomer N.-L. de



Lacaille in the previous century (it wasn't!). In 1855 he replaced the by then obsolete transit and mural circle with a transit circle that did the work of both instruments. He became in effect the chief advisor to the colonial government on scientific matters such as meteorology, standard weights and measures, lighthouses etc.

Edward James Stone (1870-1879)



Stone was a mathematician who was not an active observer himself but concentrated on the reduction of previous observations, which had got behindhand in Maclear's later years. He succeeded in reducing the backlog of publications.

The photoheliograph (which still exists) was the only new instrument to be installed during his tenure.

David Gill (1879-1907)



David Gill was the most brilliant of the Royal Astronomers. He is specially noted for his pioneering work in astronomical photography and for

having made the first ever photographic sky survey, the **Cape Photographic Durchmusterung**. He was the leading expert on the **Astronomical Unit**, the distance between the earth and the Sun, and his value was accepted as the best-determined for many decades. He was a major contributor to the **Astrophotographic Congresses**, the forerunners of today's International Astronomical Union. In addition, he was an excellent instrumentalist who strongly influenced telescope design in the later nineteenth century. He attracted many persons of international standing to visit the Cape or collaborate with him. The Royal Observatory looks today much as he left it.

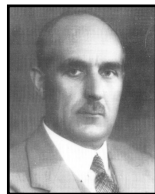
Sydney Samuel Hough (1907-1923)



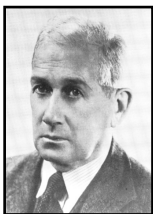
Hough carried on the programmes of Gill, bringing them to a conclusion. His term saw the introduction of radio signalling, bringing in a new era in time-determination. He also encouraged the growing band of amateur astronomers in the Cape.

Harold Spencer Jones (1933-1950)

Spencer Jones continued the position-measuring tradition of the Cape Observatory. He started a parallax programme on the McClean telescope He also took a leading part in the Eros project of 1930-31 to measure the Astronomical Unit.



John Jackson (1933-1950)

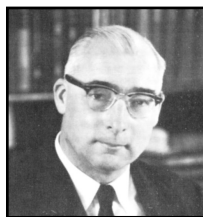


Jackson carried on the routine programmes of his predecessor. The most exciting work he did concerned the solar eclipse in Calvina in 1940.

Richard Hugh Stoy (1950-1968)

Stoy was the last Royal Astronomer. The 18-inch and 1m reflectors were installed during his time. The Royal Observatory also obtained the right to 1/3 of the observing time at the Radcliffe 1.9m telescope in Pretoria.

The search for a better observing site away from the city lights began (later leading to the SAAO Sutherland site).

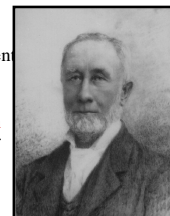


Notable Assistants and Visitors



Willem de Sitter spent time with Gill to learn practical astronomy. Later he became famous for suggesting that Einstein's field equations for General Relativity have a solution implying an **expanding universe**.

Frank McClean was an amateur astronomer who spent time with Gill at the Royal Observatory. He discovered the first evidence for **oxygen in stars**. He was the donor of the McClean telescope.



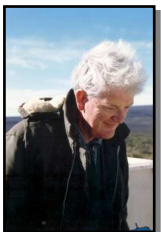
Robert Thorburn Ayton Innes was the **discoverer of the current nearest star, Proxima Centauri**. He worked with Gill at the Cape and later was the first director of the Union Observatory in Johannesburg

John Franklin-Adams was an amateur astronomer who produced the **first all-sky photographic atlas**. The southern part of this was started at the Royal Observatory at the invitation of Gill.



Joan George Erardus Gijsbertus Voûte was a Dutch volunteer astronomer who worked at the Cape at the time of Hough's directorate. He obtained the **first reasonably accurate distance for Proxima Centauri**, the nearest star.

Jakob Karl Ernst Halm (middle of back row) held the position of First Assistant under Hough and was a **pioneer of stellar kinematic studies**. His work attracted the attention of Eddington (front row, right), seen here on a visit in 1914.



David Stanley Evans was First Assistant under Stoy and made early measurements of **stellar diameters** using high-speed photometry of lunar occultations. He is well-known also for the Barnes-Evans relation. He was largely responsible for the selection of Sutherland for a new observatory.

Alan William James Cousins was a **photometrist** interested in precise observations of bright stars. His work is of fundamental significance to many parts of astronomy. Some of his best work was done while in retirement.

