6 THE MILLS OBSERVATORY - TELESCOPE (AN110-2006)

At the Leisure and Arts Service Committee held on the 20 February, approval was given for a technical assessment of the condition of the 10-inch telescope.

At that same meeting a question was raised about the status of the telescope and, in particular, the exchange of telescopes which took place between the University of St Andrews and Dundee in 1951.

The Committee is asked to note the following information extracted from "The Mills Observatory - A Historical Survey" published by Thomas Flood in 1986.

"After the war, when the Observatory reopened, the 18-inch telescope underwent a radical transformation.

Professor Freundlich of St Andrews University, together with his colleagues, was planning the half-scale pilot model of the 37-inch reflecting telescope now installed in the James Gregory building at St Andrews. The Americans were also working on a similar design and the St Andrews' team were keen to be the first to have it in operation.

The problem was they did not have a suitable mounting available in St Andrews for the 19-inch pilot model. They became interested in the Mill's Observatory's Newtonian telescope as its mounting appeared ideally suited for their purpose. Permission was given by the Town Council of Dundee for the Newtonian to be removed and a new instrument built in its place, on the assurance that: 'this would give Dundee a much superior instrument for direct public observation as the pilot instrument would be left permanently mounted in Dundee and available for public use'.

During the next three years the telescope room was closed to the public while the work proceeded. The telescope was completed in 1950 and described as 'the first of its kind in the world'. In the event, the expansion of the city north and west and the development of sodium and mercury street-lighting reduced the quality of stellar photography, so in 1951 Professor Freundlich suggested that the pilot telescope be transferred to St Andrews University Observatory. The Mills would then receive in exchange the 10-inch Cooke refracting telescope formerly used as a student training instrument at St Andrews. At first Dundee Town Council refused, and there was much correspondence in the local press, and indignation amongst local amateur astronomers that the University should interfere with the affairs of a public institution. Professor Greaves, the Astronomer Royal for Scotland, was called upon to advise on the matter. In view of the scientific benefits of the move, he recommended that the transfer take place. This was done at the University of St Andrews' expense, and on the understanding that the two telescopes were on mutual loan.

The 10-inch refractor telescope had to be modified slightly to fit the Mills dome. However, it proved to be a much superior instrument for public viewing to the old Newtonian reflector. Originally built in 1871, it is widely recognised as an excellent 10-inch telescope - particularly good for observing fine lunar and planetary detail and although not designed for photographic work, the lens is so good that, with modern cameras, good photographs can be taken.**"**

Dundee has effectively inherited an excellent telescope, fit for purpose, which continues to introduce young people to astronomy and which has been the source of fascination for enthusiasts and amateur astronomers alike. Since 2003, visitor numbers have risen from 8,850 to 12,762 in 2005.

In the words of Thomas Flood: "The Mills Observatory, situated on the summit of Balgay Hill in Dundee, is a building unique in the history of amateur astronomy in Britain, in that it is the only observatory conceived, designed and erected solely for use by the general public. It is administered by the Local Authority under a Deed of Trust and provides access to, and use of, the facilities by anyone interested in astronomy, even if only superficially, under the supervision of staff."