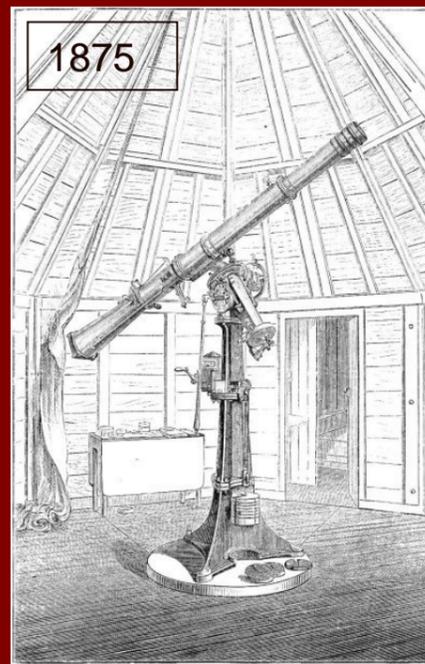


# PHOTOHELIOGRAPH (1875) & DOME (1849)



The DOME, pre-fabricated in England, is the oldest one on the site and was built in 1849 when Sir Thomas Maclear was HM Astronomer. It runs on cannon balls. At first it housed a 7-inch telescope by Merz of Munich (now attached to the 18-inch reflector elsewhere on site). The original Merz mounting was replaced by a Troughton and Simms one in 1874, probably that at present in the dome.

THE PHOTOHELIOGRAPH now occupying the dome was one of several telescopes for photographic monitoring of the Sun constructed by Dallmeyer of London to a design of Warren de la Rue, a famous amateur astronomer. It was first installed in 1875-6 in a wooden octagonal building near the present-day Astrographic telescope.



The CHRONOGRAPH was similar to a Morse code printer. The observer pressed a key to record a precise time next to ticks from a master clock.

The photoheliograph was modified in 1909-10 and installed in this dome in 1929. Plates of the Sun were taken twice each day until about 1980 and sent to the Royal Greenwich Observatory. They were used to track the 11- and 22-year sunspot cycles. Large sunspot groups are associated with enhanced states of the solar wind and mass ejection events which disturb the earth's magnetic field and interfere with radio communications.