

DOME SWEET DOME

Just before Christmas last year my six inch Newtonian with drive motors was stolen so when the Insurance money was agreed I decided to add something to in order to get myself something even better. I decided on an Orion eight-inch Newtonian with GP mount and a Skysensor 2000 computerised controller. I soon decided that after some two hours of setting up in the hope that it would still be clear (it never was) a proper observatory with dome would be much more than a luxury.



During a spring holiday in Madeira planning permission was obtained so on returning home I enquired about a second hand dome and was offered a nine foot one. Deciding that this could be fitted on top of my concrete garage I set to work in June on fixing a floor some seven feet above ground level. First of all two seven-foot long heavy steel angles were fixed firmly to the walls. Then followed five six inch by four inch timbers to carry the three-quarter inch plywood floor. In order to isolate the telescope, two six inch by four inch steel girders were installed to carry a small sub floor for the telescope mount and packing was arranged to give three-eighths inch clearance. All this was done before opening up the roof. The next stage was to remove part of the coated steel and plywood roof and trim the trusses. The plywood and steel were then cut and replaced. It was quite easy to cut the steel sheeting with an angle grinder and metal cutting disc. The opening had to be just under six feet square in order to allow the wheels on the dome sufficient space so four pieces of three-quarter inch ply were cut to thirty inches wide. This dimension plus four foot six inches, (half the diameter of the dome), would give about seven feet headroom in the centre. These were screwed in place then each side had two lengths of three by two timber fixed; one along the top and the other resting on the steel cladding. Extra pieces of plywood were fitted all round to give great strength, it would be very difficult to correct any deficiencies later.



The corners had to be chamfered to allow clearance for the dome to rotate freely. It was decided to use lead flashing all round because it was easier to work and the extra weight could be a help during windy weather. Eight segments had been cut from three-quarter inch ply and glued together in pairs some time earlier. Overlapping joints had been arranged, and these were screwed firmly in position to form a perfect circle with clearance for the dome. It had been hoped that the dome would be ready for installation by September but problems with obtaining some offcuts of fibre glass matting and the resin etc. plus help with this part of the job has resulted in holding off till next spring. The job has not been without it's humorous moments, like, how do you transport a nine-foot dome across town behind a car? Simple really, borrow a rather large trailer on a Sunday morning and rope the thing on. Our local ethnic community seemed to treat us with reverence as we passed; perhaps they thought they were going to have another mosque on our side of town!

Watch this space, and clear skies to you all. Gordon Wilkinson.

P.s. anyone out there got a two-foot crescent?