



Monthly Newsletter  
**Cape Fear Astronomical Society**  
 Serving Wilmington, NC and Surrounding Areas

**CAPE FEAR** *Skies*

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## ***SPECIAL EDITION!***

### **Under the (POD) Dome**

*by Jon Stewart-Taylor*

Since Hank lifted the Atlas mount in the POD by nine inches, I wanted to try out the C11 Edge HD again. Saturn is currently in favorable position early in the evening, so that would be my first target.

First step was to start the scope cooling. I opened the POD dome clamshell well before sunset, then rotated it to block the direct the direct sunlight. I also pulled off the main aperture cover, to let the corrector plate start to equalize.

Once it was dark enough to see the first star (Vega), I turned on the Atlas, and started the alignment. The Atlas always asks for the current date and time (defaulting to the last time the mount was used, and 8 pm for some reason). Then you chose which kind of alignment: one, two, or three stars. Each star added to the alignment increases the time required to complete, but also increases the accuracy.

I chose the 3-star alignment. The first star was Vega, which is somewhat low now, and I had no trouble finding it in the finder scope, centering it, and then centering in the eyepiece. I had to skip the first star it offered for the second alignment star: It was blocked by the dome because it was too close to zenith. The mount was happy to substitute another star for its second alignment target. It then choose another for the third, and happily chirped signifying alignment was successful.

During this process, the additional height proved to be a great neck-saver. I was able to use both the finder and the main eyepiece without having to get out of the observing chair and kneel on the floor, which I'd had to do last time I used this setup. I still needed to rotate the diagonal to comfortably use the eyepiece, it was still much better than before.

To check if it the alignment was correct, I asked it to find Saturn. The mount whirred into action, slewing across the sky. It managed to put Saturn in the eyepiece, even if not dead center.

The planet looked pretty good in the 32mm 2" eyepiece. The planet was bigger than the 8" Dobs usually showed it. Not a lot of detail on the body of the planet. The rings are still pretty flat to our line of sight. They were easy to see, but again not much detail. On the other hand, that wasn't a lot of magnification.

I swapped in a 17mm 1-1/4" eyepiece to about double the power. The planet was pretty shaky at that power, and didn't really show any additional detail. Perhaps the scope needed to cool longer. I switched back to the 32mm

Now was the real test of the mount's alignment on Polaris, and the 3-star alignment. After about 15 minutes on Saturn, I asked it to find M31 (Andromeda Galaxy). M31 was about 45 degrees away from Saturn, so the mount began slewing, and then stopped dead.

A little investigation found that the 12-volt power plug had been loosened, and there was no power to the mount. I reinserted the plug, and the power came back on. I told it to find M31, and it was completely lost. No great surprise, that. I tried to do a new alignment, but it failed badly.

I told it to park, thinking to restart the alignment. That didn't work right either, so I manually reset it to home position, manually cycled the power, and tried to align it again. When it was slewing to the 3rd alignment target, the power was lost again. By this point, I'd spent nearly 25 minutes trying to get it to re-align, so I gave up.

Next time I'm at the observatory, I'll try to figure out why the power keeps dying, and how to correct it so the mount stays live while slewing. I think once that's fixed, we can get some real use out of the scope. Saturn and Jupiter are in good position, and it does well with planets. I'd like to try it on some of the deep-sky stuff and see how well it does on those.