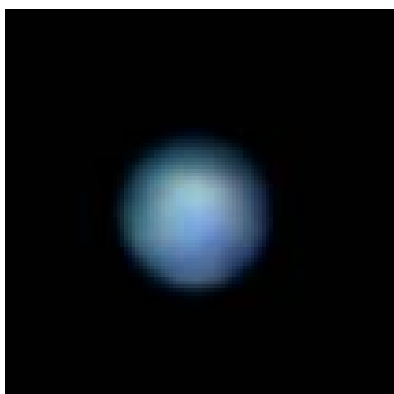


Since mid 2007 we have looked for a new telescope with an aperture of about 12 inch for planetary imaging. Till this day we have used a Zeiss Meniscas for that. It is a Maksutov system with 180mm aperture and a focal ratio of f/10. It has a superb optical and as well mechanical quality and it is of course the benchmark for our next generation telescope. We discussed that topic several times with Mr. Baader and he recommended to use a PlaneWave CDK 12.5. We have got a first real impression of the CDK12.5 at ATT fair in Essen this year. Convinced about the quality we decided to order one.

In June we visited Baader Planetarium in Mammendorf to pick up our new telescope. One of our intentions with a larger aperture is the imaging of the 2 outer planets Uranus and Neptune. Due to this we must run the CDK 12.5 at a focal ratio at least of about f/20 and push the optics to its limits. The best results we have achieved with the Fluoride Flatfield Converter from Baader Planetarium. The weather in Germany is not the best all the time. It was astonishing that the CDK was fully functional all the time without any dew shield. The outer tube was dripping wet, but the mirrors inside stayed dewless. So, please find below our best images from Neptune and Uranus.



The image of Neptune was taken on 30th of August with the Imaging Source firewire camera DBK21AF04 at f/20.



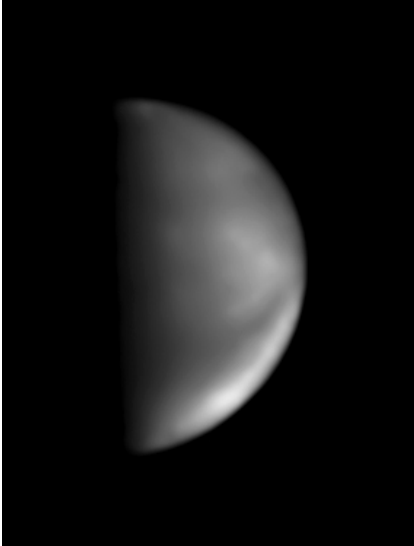
The image of Uranus we have taken on 8th of September using a RG610 (red) filter and the Imaging Source firewire camera DMK21AF04 at f/20. We have added the nice blue colour of the planet in Adobe Photoshop.

The CDK 12.5 performs excellent visually too. We combined it with Zeiss Abbe eyepieces and it delivers pinpoint stars across the complete field of view. It needs only a few minutes learning to operate the electronic focusing system. Now we can operate everything remotely without ever touching the telescope. It gives us the possibility to change the focus slightly during the image recording. The digital readout of the focus position is really helpful when we use different filters and cameras. The values are highly reliable placing the focus at a given position. Overall we are very impressed by the optics and mechanics of the CDK 12.5. At the end we have found a worthy successor for the Meniscas to go ahead with the next steps in planetary imaging.

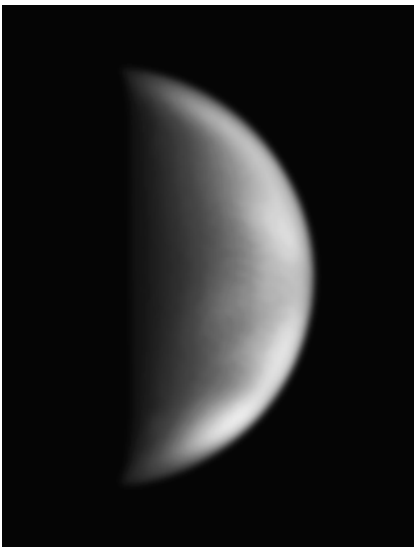
**Best wishes from Germany**  
**Gabriele and Joerg Ackermann**

## Continuation, 22.02.2009

In the meantime we have acquired some images of Venus in ultraviolet and infrared light. The cloud features of Venus appear most prominent at wavelengths from 300 to 400nm. We recorded Venus through the Baader Planetarium U-filter (325 to 369nm) and the K-Line filter (395nm). Both filters are perfect for UV imaging. For all images we used the same equipment on the CDK 12.5 as on the Zeiss Meniscas. We have got the same good results, but now with a higher resolution.



10.1.2009, 15.20 UTC, PlaneWave CDK12.5,  
Fluoride Flatfield Converter, DMK21AF04, Baader U  
filter



25.1.2009, 15.33 UTC, PlaneWave CDK12.5,  
Fluoride Flatfield Converter, DMK21AF04, Baader  
K-Line filter

From a few ultraviolet and infrared images we created some pseudo colour composite images. The blue channel corresponds to the ultraviolet and the red channel to the near-infrared. The CDK 12.5 works excellent in both wavelength ranges.



10.1.2009, 15.20 UTC, PlaneWave CDK12.5, Fluoride Flatfield Converter, DMK21AF04, Baader U filter and Schott RG1000



11.1.2009, 15.40 UTC, PlaneWave CDK12.5, Fluoride Flatfield Converter, DMK21AF04, Baader U filter and Schott RG1000



25.1.2009, 15.33 UTC, PlaneWave CDK12.5, Fluoride Flatfield Converter, DMK21AF04, Baader K-Line filter and Schott RG1000