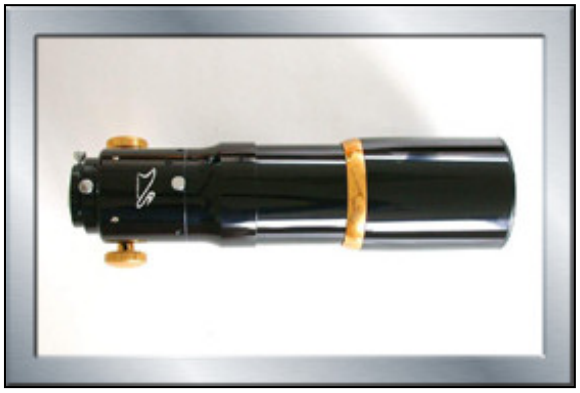
Testing the WO Zenithstar 80 - By Fred Hissink

By Paul Walsh - 2/20/2005



A newborn child in the William Optics-family
Testing the WO Zenithstar 80

Written By Fred Hissink, submitted by the Editor

I have owned several short-tube telescopes in the past, so testing the newborn child in the William Optics-family was a nice task? After a few years of observing without a portable scope to fill in the hours before moonrise or short moments of cloudless evenings, I decided to buy another travel companion?br />

Little Black Beauty

You could say that the Zenithstar 80 is another version of the well-known family of short-tubes. Yes, you could, but you e in for a surprise if you give this little black one a closer look. When I saw the Zenithstar 80 on the site of my regular telescope supplier, the black glossy tube and the golden rims and knobs made my heart jump?What a beauty! I knew that I could not base the performance on the appearance, but let愀 be honest: sometimes you need a nice •ackage?to get interested in the contents?

For instance: the Zenithstar has no inexpensive looking parts and everything looks solid. The overall construction is very good. The Crayford focuser moves very smoothly and there no need for turning the knob back and forth; every object snaps into focus?In my case I had to adjust the tension of the focuser because the weight of the Radians and Naglers pulled the tube down.

A scope for low magnifications

The WO Zenithstar has a focal length of 480 mm and is not a telescope for high powers. If you want to examine details on planets, you should buy a telescope with a longer focal length. It not because this telescope has cheap optics that lack the ability to keep up with high powers! No, on the contrary, the power of the Zenithstar lies in the low to medium magnification range. After all, it a grab-and-go telescope with a high degree of portability. Therefore you could put the Zenithstar on a regular mount with motor drive and/or slow motion controls. That will make it a real telescope, but you could also enhance the rab-and-go?feeling and put it on a camera tripod.

You don• need a motor drive while using low magnifications on the little scope; my 32 mm Tele Vue plossl gives a magnification of 15 and nearly a FOV of 3 degrees. My Nagler 7 provides a magnification of 68 and a FOV of 30? So there plenty of room for an object on• use a very light tripod; take the scope to the store and try different ones?br />

First light

The Zenithstar delivered his first surprise during the daytime. I observed a white roof and expected to see some blue and yellow around the edges.

But, nothing was there. The image was bright and very sharp; it reminded me of the quality optics I• used in the army. Yes, this was a good start! I e never had so much pleasure in watching rooftops, chimneys and parked cars?But, there was another surprise at the end of the day! After the clouds where gone I took he Zenithstar into the backyard. A five days old moon stood high in the sky and Saturn was rising above a rooftop. It was not a perfect night for observing deepsky-objects, but since I had not seen any colors during the daytime, the presence of the moon was very welcome?

Semi-apo or not?

What in a name? I e read some articles with definitions about apochromats and semi-versions, but after that I came to the conclusion that the world of color-free optics is a very hazy one?So I loaded the Zenithstar with a Tele Vue plossl 32 mm and aimed it at the moon. I saw a very satisfying image, far better than the images of the other short-tubes refractors I e owned. The image of the moon was razor sharp and even at the edges of the field I could see only a vague distortion of sharpness. Yes, there is some color around the edge of the moon, but less color than a ormal?doublet would provide. According to William Optics the doublet of the Zenithstar has a 30% better correction than an average achromat; it not just a statement, it true he doublet of the Zenithstar is indeed better than a ormal?achromat. There an increase of color at a higher magnification, but the image is still better than an average short-tube of the same aperture and focal length.

William Optics recommends a power of 100 as an acceptable limit and that wise?As I mentioned earlier, the Zenithstar is not a telescope for high powers. But, the image of Saturn at a magnification of 136 was good (Nagler 7 and a Tele Vue barlow) Without the barlow and a magnification of 68 Saturn was very sharp and reminded me of my first view of this planet 25 years ago?Some color was visible, but Saturn wasn• swimming in blue and yellow like I e seen in some other short-tubes.

The Zenithstar is a perfect instrument for wide field views of deepsky objects, but unfortunately the moon was too bright. I had to wait for that crystal clear and moonless night, but I sure my patience will be more than rewarded!

Baffles

The bright moon should have caused some hosts?in the image?A well known annoyance, but the Zenithstar showed no reflections at all. There a good light distribution and the moon stood like a sharp disk in the image. No wonder, there are 15 dark baffles and these photon-blockers are doing a very good job! The images of the short-tubes I e used in the past always had ghosts, but who needs more than one moon in the field of view?
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Summary

The Zenithstar 80 is not an •rdinary?assembly line telescope?This is definitily a product of craftsmanship! The optics are very good and the doublet has certainly a better (color) correction than an average short-tube achromat. There a decent green multicoating and 15 baffles to avoid ghosts. I forgot to mention the retractable dewcap and the ability of the focuser to rotate 360 degrees?You could argue about the weight of this little instrument; instead of a telescope built up from cheap materials, William Optics offers a decent telescope with solid parts and superb optics...

Click here for more about the Zenithstar 80. -Ed.