## **EQUATORIAL PLATFORMS**

Delivers 30-inch f/3.3 SlipStream Telescope



Tom Osypowski with the 30-inch f/3.3 SlipStream Telescope.

A 30-inch f/3.3 SlipStream Telescope, manufactured by Equatorial Platforms, was delivered to a customer at the recent Golden State Star Party (GSSP) in California. The scope received no small attention, because of both its size and because of its unique and handy features. Not to mention the great views it provided for three nights at this very dark sky site.

First, the scope's size drew attention. A 30-inch is a large scope, and so will always be of interest, but this 30-inch was doubly noteworthy because of its shortness. At f/3.3 it is shorter than the common 20-inch f/5s that commonly seen. This translates to a smaller ladder, shorter truss tubes and a generally convenient telescope to use. The views were very satisfying, as they should be with a well-corrected mirror, regardless of f/ratio.

Tele Vue's new Paracorr Type-2 was put to good use with the lower power eyepieces, such as the 26-mm Nagler. Using the Paracorr with this eyepiece, the star images were tight across the full field of view at 112x. At higher powers (250x and above), the scope provided quite satisfying views without the

Paracorr. Views of Jupiter (a very difficult and demanding object, contrastwise) at 400x were superb with details and subtle color shadings visible across the disk.

Second, the unique features drew attention to the scope. This includes solid, all-metal construction with a durable finish on the aluminum parts, consisting of a dark gray hammertone powder coat on the mirror and rocker boxes, contrasting nicely with the black anodizing on the side bearings,



Detail of the lower assembly of the scope, showing the large altitude wheels riding on 1-inch diameter stainless steel shafts. One of the shafts is driven by a belt/pulley arrangement. The stalk carries the Argo Navis computer and an optional netbook.

cage rings and other parts.

The unique low-profile metal mirror box and exhaust fans in the back of the mirror cell allow for quick cool-down of the primary.

Tight fitting covers on both the front and back of the mirror box keep out insects and dust, protecting the mirror during transport and in storage.

The low-profile welded-steel mirror cell supports the glass without strain. Instead of pushing the mirror supports in and out for

collimation, the entire cell pivots when turning the two collimation knobs. The 18-point back supports for the mirror are calculated by *Plop* for maximum accuracy. And the fourpoint edge support is designed to carry the mirror without strain or sideways movement. No testy slings to adjust!

The scope is supported on three sets of dual ball bearings in azimuth and by two long stainless steel shafts in altitude. The oversized alt bearing half-wheels sit on these shafts, which rotate in four pillow-block bearings. The drive system - motors and controllers - is manufactured by Sidereal Technology. This sophisticated servo-motor drive features slip clutches on both axes, so the scope can be both slewed with the included cordless hand control and also moved by hand at anytime without losing positioning data. Full go-to capability for the scope is realized with the Argo Navis, or with a laptop and planetarium program. Just dial in the object you want on the computer screen, and push a button on the hand control and the scope slews to the target automatically and begins tracking it.

The cordless hand control provides several functions. A three-speed slew in both axes gives complete control over the slewing motions of the scope. You can quickly go from one part of the sky to another with the fast speed, center an object in the field of view with the medium speed, and fine-tune centering at high power or on a laptop screen



The rocker/mirror box assembly can be ramped up into a minivan with the included handles/wheels.



The handles are standard 2x4's that slip right into the rectangular tubing on the side of the rocker box. The wheels are mounted on shorter pieces of the same wood and they too slip right into the tubing. Both the azimuth and altitude movements of the scope can be securely locked down during transport.

with the slowest slew. The speed of all three of these slews can be independently programmed to the user's needs. The hand control also includes a built-in red flashlight with adjustable brightness for chart reading and moving around the scope.

An optional rotating cage assembly allows turning the focuser to a convenient place for strain-free viewing. For large scopes, such as this 30-inch, the rotating cage hardware also makes it easy to install the cage onto the truss tubes while standing on the ground.

The SlipStream Telescope also includes an innovative transport system. Open ends in the sides of the rocker box tubing provide slots for quickly sliding in wheels and handles that then allow the rocker/mirror box assembly to be wheeled around on pneumatic tires and pushed up ramps into vehicles for transport. A small van or SUV works very well for transporting the scope.

Finally, there are bunch of mini-features that make the scope friendly to use including a Feather Touch focuser as standard equipment and a Rigel Quikfinder is provided for centering the two stars needed to calibrate the

needed to calibrate the Argo Navis for a night's viewing. A larger optical finder or guide scope can be

easily added to the UTA such as the 80-mm Stellarvue Raptor ED refractor shown in the images.

A useful ventilation system is provided in the mirror cell, with exhaust fans, rechargeable batteries, and a control box to vary the speed of fans and air outflow. Also, an optional wiring feature brings power up one of the truss tubes to the UTA for running dew heaters and cameras. A rechargeable battery is also provided in the rocker box to power the drive system and the Argo Navis. This battery will run the scope for three nights on a single charge. A nice custom-fitted black stretchy shroud for the truss tubes is provided at no

extra cost.

To sum up, the all metal construction of the SlipStream Telescopes is strong and durable and the GoTo Alt/Az drive system with built-in slip clutches adds great convenience for moving the scope around the sky or for centering objects, either with the motorized slews or with the old-fashion grab-and push hand method. The GoTos will put an object in a 200x field of view, and the tracking of the drive is accurate enough to keep the object centered for long periods.

If you would like Equatorial Platforms to custom build a scope for you, please visit www. www.equatorialplatforms.com.



The mirror cell is a welded and powdercoated steel structure. The back of the mirror rests on an 18-point flotation designed by the PLOP program, and the edge of the mirror is supported by two dual-pad rocker arms. The back of the cell features cooling fans, batteries, a power box for fan speed adjustment and a thermometer which monitors the temperature of the mirror and ambient air.

