By Todd Carlson

# SkyShed Observatory

## Roll-Off Roof Telescope Shelter Installed in a Day

I WILL SHEEPISHLY ADMIT THAT ON occasion, I have looked outside to see a clear night sky but have decided to remain indoors, discouraged at the thought of having to set up my equipment, only to have to disassemble it a few hours later and lug it back inside. The convenience of having my own observatory has always been a dream for me, but my crude carpentry skills realistically suggest that a homebuilt observatory isn't in my immediate future.

For five years, Wayne Parker and Brad Adams worked to develop a fully functional, yet affordable backyard observatory for amateur astronomers. Having designed and built thousands of garden sheds and cabanas with his company Northsheds, Adams combined his extensive expertise with Parker's vast knowledge of astronomy. The result was the debut of the Northsheds SkyShed at Starfest 2003. Intrigued, I seriously began to think about having a SkyShed constructed.

During my first phone call to Parker, I explained that I wanted to house my 4-inch f/9 fluorite refractor and my 12.5-inch Porta-Ball reflector. We decided that a 10-by-12-foot SkyShed would suit my requirements. I also asked Northsheds to provide a metal pier for the refractor's equatorial mount (it offers piers of various sizes). At my height (six-foot-three), I opted to have the walls built an extra 6 inches higher than standard. After browsing their on-line gallery, I chose to have the SkyShed stained grey.

Parker and Adams travel to the site the day before construction to survey the location and install a concrete base for the pier, but I opted to install the pier myself. Accurate polar alignment was not necessary before installation because the rotatable pier head allows the mounting bolts to be set in the concrete without concern for polar alignment.

At Adams' facility, the observatory's pine and spruce walls and floor are prefabricated and the stain is applied. This means a SkyShed can be entirely installed by a two-man crew in one day—in my case, Parker and Adams completed it in seven hours.

The two telescopes do, indeed, fit comfortably in the SkyShed. To prevent footstep vibrations from propagating through the wooden floor to the reflector, two holes were cut in the floor, each parallel to the supporting beams underneath. I laid 12-by-24-inch patio slabs in each until the slabs were slightly higher than the floorboards. A 5-inch-thick concrete patio block was then placed on top of the slabs. The result is a solid, vibration-free base for the reflector.

The inner walls are covered with Tyvek to prevent dust or snow from blowing inside, while vents in the roof at each end allow air to circulate. To keep the interior temperature to a minimum, metal roofing is used as opposed to shingles. A set of garage-door track and rollers enables the roof to slide effortlessly when using the installed handle, although I did attach a short pull cord to facilitate easier opening and closing. If the ground beneath the SkyShed does begin to settle, specially designed Northsheds support jacks allow easy adjustment to the height of the track-support beams.

The SkyShed has functioned perfectly after many nights of use and has ended my struggles to lug my telescope equipment to and from the backyard. Now, with an easy push of my observatory roof, the stars are mine to behold. ■

**EDITOR'S NOTE:** *A few weeks after* SkyNews *assistant editor Todd Carlson wrote this review of his newly purchased SkyShed, he was approached by company president Wayne Parker to become a regional SkyShed representative, handling observatory installations in the Orillia-Muskoka-North Bay region of central Ontario. This review has not been modified since Todd accepted this position.*

**LETTING IT ROLL** The large illustration at left is an artist's rendering of Sedna and its suspected moon. The bright starlike object to the right is the distant Sun. Sedna (red dot in orbit illustration) is currently three times from the Sun than Pluto. After Pluto, Sedna is the largest known body beyond Neptune. Quaoar, the largest body in this region, has an orbit similar to that. Sedna (red dot in orbit illustration) is currently three times farther.

**A TRUE 'SCOPE SANCTUARY** The large illustration at left is an artist's rendering of Sedna and its suspected moon. The bright starlike object to the right is the distant Sun. Sedna (red dot in illustration) is times from the Sun than Pluto. After Pluto, Sedna is known body beyond Neptune. Quaoar, the largest body in this region, has an orbit similar to that. Sedna.

### PRODUCT SPECIFICATIONS

Available in sizes ranging from 6-by-6 feet to 12-by-16 feet, a SkyShed is designed to be fully functional yet still blend in with either suburban or rural surroundings. Installation by Northsheds is limited to Ontario and Quebec. There is no extra charge within 200 kilometres of Newmarket, Ontario. More distant customers can call for a delivery quote. For do-it-yourselfers (or installation by your local carpenter), detailed, easy-to-understand plans on CD are available for $79.95 (US$59.95) from the SkyShed website (**www.skyshed.com**) or from your favourite astronomy retailer. Prefabricated kits can be picked up at the Newmarket facility or delivered to your site for the kit price plus $300 within south and central Ontario (Ottawa to North Bay to Windsor; beyond those areas, call for a quote). The cost of the CD is deducted if an installed or kit SkyShed is purchased afterward.

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for use with Meade ETX Maksutovs, where stubby low-profile eyepieces cause your face to collide with the finderscopes.

Are the X-Cels as good as the more expensive long-eye-relief models? I compared them with Orion and Vixen Lanthanums (perhaps the closest competitors) and with the highly regarded top-of-the-line Pentax XLs and Tele Vue Radians. The top-end-model star images were absolutely crisp to the edge of the field, even on the fast focal-ratio refractor, with no ghosting or false colour. But through the Schmidt-Cassegrain, the differences were less marked. Considering that even the 50-degree-field Orion and Vixen Lanthanums sell for $150 and the others start at $350, the X-Cels are a bargain, especially for owners of f/8 and slower (longer) focal-ratio telescopes, where they perform well. The breakthrough here is that Celestron has at last brought the comfort of long eye relief within reach of modest budgets. ■