

Fact★Sheet



WMO – Joan Hodgins

Wilkinson Memorial Observatory Eastend, SK

www.townofeastend.com



Original 8"scope on display at the
Eastend Historical Museum – Joan Hodgins

In 1949, Eastend's local blacksmith and machinist, Jack Wilkinson, built an 8 inch reflector telescope, through which local residents gazed at the moon, stars, planets and many other celestial wonders.

This Observatory is a testament to the ingenuity of Jack Wilkinson who dreamed of seeing the stars closer up and personal. He used his machining skills to build his own telescopes. His efforts included a 4 inch refractor, and a 6 inch and the 8 inch reflector telescopes. In telescopes, size refers to the lens or mirror that produces an image. A refractor telescope uses a glass lens to produce an image, whereas a reflector telescope uses mirrors to produce an image. Jack built his telescopes from scratch, even hand-ground his own lenses. His son, Jack Wilkinson Jr., remembers a lot of experimenting and gadget building around the house when the building process started.

He also showed his resourcefulness in building his telescope mounts, especially for his original 8 inch scope. The top of an old steam boiler was used as the base, with a heavy pipe as the main upright support. “. . . Various other pipes, shafts, bearings and brake mechanisms were welded and pressed together to get the two axis at just the right angles to track the stars as the earth rotated . . .” The original 8" telescope is on display in the *Eastend Historical Museum!*

Jack died in 1953 just after he finished building the observatory. The dome was placed on top of the old school, then the new school, until it was moved to its present location 4 kms west of Eastend on highway #13, on land that was donated by the Gregory family, where Jack's legacy lives on. Following his death, the Eastend Astronomical Society was formed to further study the sky and to encourage and develop Astronomy in the Eastend area.

Today, the *Wilkinson Memorial Observatory* boasts an 11 inch Celestron Telescope, with a GoTo Tracking System. Many aspects of Astronomy thrive in the area, through the efforts of the local *Wilkinson Memorial Observatory Astronomy Club!*

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Orion Nebula – Roland Bear

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Protecting and Preserving the Natural Darkness of Our Prairie Sky!

News Flash . . . *In September, 2015, the Wilkinson Memorial Observatory Light Pollution Committee submitted a proposal to the Interprovincial Park Management Team to include the East Block of the Cypress Hills in the Cypress Hills Dark-Sky Preserve. The following spring they approved it, and it was formally announced at the 2016 Saskatchewan Summer Star Party. So now we are awaiting the last leg, for the formal declaration from the International Dark-Sky Association to become officially included and recognized as part of the Cypress Hills Dark-Sky Preserve!*

Our dark night sky is becoming threatened by light pollution (light that shines where it is not needed or used). The intent of a Dark-Sky Preserve is to limit light pollution through the use and promotion of responsible lighting practices. We all need effective outdoor night-time lighting so we can see well, to feel secure and to drive safely. This doesn't mean turning out all our lights, but it has a lot to do with using artificial light responsibly. It has to do with controlling our light, and directing it where we need it, and shielding it so it doesn't go up or trespass onto a neighbour's (ie like putting a cap on it): it has to do with reducing glare, with dimming and turning lights off when not in use, hence saving energy and in the long run, money.

Effects of Artificial Light at Night on Wildlife . . . *The moon and stars provide natural light, and this changes every night. Artificial lighting gives off a different type of light and it is constant!*

Wildlife, including insects and invertebrates, fish, amphibians, reptiles, birds and mammals require both daylight and darkness for normal functioning. Their biological clocks correspond to the cycles of light, temperature, availability of food and many other factors. Too much light at night can "reset" their clocks, disrupting their natural patterns. Many native plant species are adapted in a similar fashion to these cycles of natural light, temperature, moisture and nutrition. They need both daylight and darkness to function normally. Nocturnal animals and plants detect light much better than the human eye, and what seems to be normal light to us is in fact very bright to these animals, like bats, navigating birds, hatching baby turtles, plankton and fireflies.

In humans, artificial night light can disturb hormones and the immune system as our bodies need night-time darkness for good health and complete rest. Medical research has linked night-time lighting to certain forms of cancer.

People and wildlife will all benefit from a healthier, more efficient, safe and natural world!