

Binary asteroid observations with the Sonoita Research Observatory robotic 0.35m telescope

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The Sonoita Research Observatory (SRO) is located in Sonoita, AZ about 40 miles from the Mexican border. The telescope is a 14" Schmidt-Cassegrain equipped with an SBIG STL-1000E CCD camera with Johnson-Cousins BVRI filters as well as a clear filter used primarily for observations of faint asteroids. The telescope is fully robotic, greatly increasing the productivity of the observatory.

A wide variety of stellar and extragalactic projects are carried out at SRO and we also collaborate with P. Pravec and other observers on observations of binary asteroid candidates. So far, SRO has contributed to the discovery of about a dozen binary asteroids.

The success of SRO has lead us to increase our capabilities. We will soon have a 0.5m telescope at the Sonoita site. SwRI has invested significant funding in the refurbishment of the 0.6m Optical Craftsman telescope at Mt. John Observatory in New Zealand. It is hoped that the New Zealand telescope (operated in an identical manner as the SRO 0.35m) will go online by the end of the year, giving us southern hemisphere coverage for our many projects including the binary asteroid survey.