

Enhancing Scientific Literacy in the Northeast Kingdom

John Blackwell (Phillips Exeter Academy, Northeast Kingdom Astronomy Foundation), Ben Moss (White Mountain School, Northeast Kingdom Astronomy Foundation), Sidney Wanzer (Northeast Kingdom Astronomy Foundation)

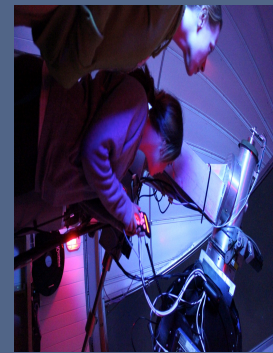
Abstract: An observatory in the Northeast Kingdom of Vermont opens to assist surrounding elementary and high schools with science literacy using astronomy as a capstone science, introducing students to advanced instrumentation, scientific method and data manipulation skills.

The Location:

- Peacham, Vermont, a small town with low population and excellent dark skies.
- Observatory is positioned adjacent to local elementary school on a hill.

The Facility:

- 17" Dall-Kirkham reflector.
- CCD imager with standard filter sets for multi-color imaging and photometry.
- Astrometric Instruments custom equatorial mount.
- 14.5 foot dome.
- Attached breezeway and warmed operations control room.



The Mission:

- To enhance science education by promoting the study of astronomy by students and the public, and strengthen the science curriculum of participating schools by providing facilities and opportunities in astronomy generally unavailable to secondary and post-secondary schools in the Northeast Kingdom of Vermont.



The observatory control room, an isolated, and heated, section of the facility which allows for larger group visits and remote control of the telescope.

The Strategy:

- Train science teachers as docents at the various participating schools, acting as the interpretive and guiding interface between the individual student user and observatory technology.
- Leverage the outreach capacity of the observatory by providing opportunities to students, teachers, and the public to explore astronomy through remote control operation of the equipment from anywhere in Vermont with access via the Internet. Expand the program as capability allows into other communities in neighboring states.



The interior of the dome showing the 17" telescope, optical train and control system. The dome is large enough to allow small groups to work at the telescope directly.



A selection of astrophotos taken by students at the NSO. Using basic post processing techniques and readily available software, projects are endless.