



OBSERVER

Winter 2007

In October the Island Astronomy Institute received its Final Determination Letter from the IRS. This last step documents our full approval as a 501(c) 3 tax-exempt corporation. With this essential milestone in hand, we are forging collaborative and funding partnerships for two long-term regional projects. We are orchestrating our dark sky preservation and educational outreach programs into a unified effort to *Educate Maine's Starlit Communities*.

Maine enjoys more naturally dark skies than any state east of the Mississippi. Advances in outdoor lighting can now protect starlight, save energy, and increase visibility. If we act now, Maine can preserve its starry skies. Last summer we initiated planning for a regional dark sky preservation campaign. Acadia National Park quickly became an active and willing partner. Joining forces through a multi-year collaborative agreement, we have applied for federal funding and requested technical assistance from the scientists of the National Park Service's Dark Sky Team. We hope to be the first organization outside of the Park Service to use the team's light pollution measurement technology. Friends of Acadia has enthusiastically joined this partnership, committing \$15,000 to support our work over the next two years. With our commitment to raise matching funds, the Institute stands to gain access to as much as \$35,000.

Our plans make use of inexpensive Sky Quality Meters (SQM) to support community measurement projects. We are partnered with the National Optical Astronomy Observatory's (NOAO) Project GLOBE at Night to pilot the use of SQM's by people of all ages, as they plot simple light pollution maps. To complement these simple maps, we are working with the College of the Atlantic's (COA) Geographic Information Systems lab, to generate high-resolution light pollution maps from SQM readings. COA allocated \$1,000 in NASA research funds to construct the first three-dimensional light pollution map of Mount Desert Island.

While the SQM is the perfect tool for traditional mapping, it cannot compare with the capability developed by the National Park Service's Dark Sky Team. Their system captures thousands of data points at a time. Because each point is precisely aligned to the sky, it indicates not only how **bright** the light is, but more importantly, **where** the light is. Our goal is to be the first to use this powerful system to pinpoint and monitor light pollution right where it counts—outside the Park, and inside Maine's communities. Our

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two programs blend together as we bring astronomy, the science of stars, into elementary schools.

The STARLAB Portable Planetarium was invented decades ago by Learning Technologies, Inc. It was designed to be carried into schools, set up in minutes, and operated by a single person. Today computers and lightweight projectors have transformed these portable planetariums into a universe of instruction, all available at the click of a button.

In January, after evaluating three other manufacturers, we notified Learning Technologies, Inc. that we selected their Digital STARLAB planetarium. LTI's extensive experience with portable planetariums and their commitment to educational excellence are reflected in the Digital STARLAB. Inside this powerful educational tool we can fly students through space. Words cannot explain the light and enthusiasm that shines in young eyes as they experience a STARLAB for the first time.

Because words and pictures do fail to capture the impact of a STARLAB, we are renting a Digital STARLAB for a demonstration and fundraising tour. Every principal we called was eager to be involved. So far we have commitments to bring the STARLAB to:

- Pemetic Elementary School, Southwest Harbor
- Connors Emerson School, Bar Harbor
- Tremont Elementary School
- Mount Desert Elementary School, Northeast Harbor
- Acadia Partners for Science and Learning, Schoodic Point

Please visit our website to follow the progress of these two innovative programs, as we begin *Educating Maine's Starlit Communities*.

∞ **Light Pollution Measurement**

Make a visible difference in Maine's future. Your contribution of time or money can help make our program a success for all ages.

∞ **The Digital STARLAB**

This spring will kick off our fundraising & demonstration tour. This exciting new technology must be seen to be appreciated. We hope you can make it to one of the events.

Thanks to you, the Institute is ready to grow.

Peter W. Lord
Director

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