BPL-003
MORANIC MISSION TO MONTANA

Rev. 1 November, 2008
Rev. 2 January, 2009 (early release; subject to update)

Brower Propulsion Laboratory

MISSION OVERVIEW

The Brower Propulsion Laboratory announces its third full - scale exploration mission, entitled BPL-003 MMM (Moranic Mission to Montana). The project entails retracing the path of an expedition that included the painter Thomas Moran to the Yellowstone region in 1871, only this time using robotic spacecraft. Manufacturing and testing began in the Fall of 2008 and launch is scheduled for late in August, 2009. Operations will take place near Yellowstone National Park at Livingston, Montana, and will involve an unprecedented coordination of three different spacecraft: a lander, a rover, and a high altitude balloon. During the mission, a remote headquarters and mission control will be set up at Livingston, in the upstairs of the 'Visions West' Gallery, where visitors will be invited to participate in the expedition. Operations will be available on the Interweb, with several user-accessible "interactive" features. At the conclusion of the mission, the spacecraft and processed data will be brought to the Esther M. Klein Art Gallery, part of the University Science Center in Philadelphia, for public display. Before the launch date a small public exhibition of plans and documents will be on view at the Pushkin Institute, in Athens, Greece, which sounds very important. As with all our work, the vehicles and equipment used in this mission will be completely hand made by BPL's single employee, to conserve funds and expectations. Operations and updates will be made available on the interweb at: http://www.browerpropulsionlab.com. See the end of this document for further contact information.

MISSION OBJECTIVES

The mission will take place near Livingston, Montana. Analysis of this active volcanic region will be conducted from several perspectives. Mission Objectives include:
(1) to assess the history of the region not only geologically, but also pseudoscientifically;
(2) to locate and access fuel sources that will help the United States end its Dependence On Foreign Oil (DOFO);
(3) to answer one of the most fundamental questions confronting mankind today: Is there Life on Earth?;
(4) to determine the nicest views in the area;
(5) to present Brower Propulsion Laboratory with a wide range of problems we have no idea how to solve, so that we may have something to do;
(6) to invent solutions to these problems so that we may deepen our understanding of the world and its systems, even though this understanding is bound to be trite, shallow, and a part of common knowledge to many people outside the lab, and
(7) to present our findings to a very narrow audience that will hopefully be dazzled by the breadth of our enterprise, if not the depth.

The mission will include three space vehicles: The MUNIN 2 lander, the LIMPER 2 rover, and the ICARUS high altitude balloon. The MUNIN 2 lander will act as a base for cameras and experiments, as a garage to the LIMPER 2 rover, and as a launch platform to the ICARUS balloon. A variety of science experiments and data collection systems will be included on each vehicle.

(Acronyms: LIMPER stands for Limited Intelligence Marginally Produced Exploration Rover, and ICARUS stands for Intentionally Cheap Airborne Reusable Utility System. IHAVE is the ICARUS High Altitude Vehicle Element, a fun but pointless moniker. MUNIN originally didn't stand for anything but an element in a Norse legend, but it has been updated to Module for Unmanned Novel Investigation and Notation.)

MISSION BACKGROUND

In 1871, the American painter Thomas Moran was included on a U.S. Geological Survey tour of the Yellowstone region. The small sketches he produced on this trip became the source material for gigantic paintings depicting the grandeur and beauty of the American west. The paintings were brought to the U.S. congress and used to stimulate interest in creating a National Parks system. Convinced by the notion that the United States possessed resources that matched and exceeded Europe's, the preservation and access to these natural wonders became a matter of national pride, not to mention economic expansion. The National Parks were established and in the same act, 10 million acres of land were given to the Northwest Pacific railroad, with the mandate of creating that access. As it happens, Moran's inclusion on the expedition had been sponsored by the owners of the railroad. A couple of years later saw the bankrupting of the Northwest Pacific company during the Panic of 1873, and the connection of the midwest to the west coast was delayed by bank failures, burst investment bubbles, and restructuring. When finally completed, the rails were used for a hundred years to shuttle tourists, prospectors, industrial goods and raw materials into and out of the area. Ultimately the railroad pulled out of the region, and plays only a tiny role today. The town of Livingston, Montana is a kind of museum to this history, having been created and then abandoned by the railroad. More recently, it was discovered that the supply of drinking water to the town was tainted with thousands of gallons of spilled Diesel fuel and chemicals dumped during train maintenance. The town, once the location of one of the largest repair facilities for the railroad, is now home to perhaps a dozen art galleries, which cater to tourists and wealthy second home owners in the area. Nearby Yellowstone National Park, the nation's first and best known, continues to draw enormous numbers of visitors. Perhaps because of its prominence, it is also the center of heated debates about ecology, resource management, and development. The carefully maintained structures in the park tend to mask these debates and many of the visitors pass through the park's boundaries unaware of their extent. Into this context BPL wants to inject some questions: Why is the pursuit of life on other planets so interesting when no one gives a rat's ass about it on Earth? Is the 'nature' that attracts tourists the same 'nature' that attracts explorers? Are tourists Aliens? What is the relationship between corporations and environmental stewardship? Is it better to send robots to national parks, or can a human being do more useful visiting than any robot ever could? How could a mere artist have had such a large impact on a place (and still be widely unknown)? Can you run a solar panel on Diesel fuel?

EXPERIMENTS

(To date, a number of experimental platforms are being studied. Which ones appear in the mission ultimately depends on the kind of sponsorship we can drum up. But we know the vehicles will be shiny)

The spacecraft will be using carefully designed experiments to detect signs of life, good composition, and exploitable resources in this geologically varied region. BPL sincerely hopes this battery of experiments will finally put to rest the debate that rages over whether or not life exists on Earth, or at least finds a way to end American Dependence On Foreign Oil (DOFO). If nothing else, we are guaranteed to get some nice photos of mountains and rivers.

Cameras and devices on the spacecraft will be accessible from the internet. Viewers will not only be able to survey the alien landscape and creatures of Montana, but also observe each of the vehicles as they go about their duties. Some will even participate directly in the mission by taking turns controlling the vehicles.

Cameras and various bait - activated devices will be used on the Munin 2 and Limper 2 spacecraft to detect larger, more complex biota. BPL's nutrition experts are devising menus for bait to attract birds, pronghorn antelope, and southerners, for instance. While photographs and recorded feeding rates will be obtained, this information alone cannot determine absolutely the existence or non existence of life. BPL hopes that thorough analysis of all the data brought in by the mission the question can be brought to a vote.

Another experiment will feature drilling through the ancient breccia of the surface for the

insertion of probes to measure volatile organic chemicals. Earlier surveys have detected a cache of thousands of gallons of diesel fuel floating on top of an aquifer of fresh water near the Yellowstone River. Obviously the access to and exploitation of this fuel source could eliminate America's DOFO instantly. The drilling and probe devices are operated automatically at the end of a robotic arm extended from the deck of the Munin 2 spacecraft.

Studies of the areas originally visited and depicted by the painter Thomas Moran will be conducted. The optics on board the Limper 2 will be used with novel software to determine the relative qualities of different natural vistas. Algorithms based on the world's "best" works of art will be used in the analysis of the compositions as they are created, in an effort to finally determine the best views available. It is BPL's hope that tourists may stop wasting their time looking around in an inefficient manner for beauty. The aesthetic budget of the tourist is shrinking and BPL's unique technology will play a role in the future of 'Picturesque Conservation'. Our scout's paintings done during a preliminary tour of the area in 2008 will be used to calibrate Limper's machine vision system.

The launch of the Icarus High Altitude Vehicle Element (IHAVE) will be controlled by some lucky internet participant. The vehicle will be inflated with helium, checked out and launched entirely by remote control from the deck of the Munin 2 lander. It should reach the lower troposphere before it returns by parachute to earth with its trove of data and images. Recovery of the vehicle will be a matter of public participation, involving ceremonies, prizes, consumption rituals, bitter rivalries, hearty handshakes, and high adventure. Or the precious payload might be run over by a truck or lost in the mountains when it returns.

ACCESS

More information will be available about the mission at browerpropulsionlab.com. A public exhibition will be set up concurrent with the mission in Livingston. Features of this exhibition will include the Remote Mission Control, monitoring station, and Headquarters for recovery operations for the IHAVE module. At the end of the mission, all artifacts will be moved to the Esther B. Klein Art Gallery in Philadelphia. Interactive elements will still be functional for demonstrative purposes, and in a desperate attempt to generate interest in BPL's next endeavor. Throughout the mission, interested parties will be given chances to control each of the mission elements for certain periods. These time slots will be won through a raffle or other greed-oriented gimmick.

PRE-MISSION ACTIVITIES

Experiments and mission updates will be posted on the BPL website, browerpropulsionlab.com. The assembly of the entire mission will be available in the form of 'How-to' documents, that explain our unique procedures, and also the ones we found in 'how-to' documents on websites. This didactic gesture is meant to appeal to the vanity of otherwise idle consumers by suggesting that any jerk can create his own space mission, which everyone knows is ludicrous.

MISSION SUPPORT

Cheap memorabilia pertaining to the MMM mission will be made available in an attempt to raise vital funds for the project. In addition to these meaningless baubles, the original watercolor paintings made during scouting trips by the BPL team of the Yellowstone region will be sold in unnecessarily overdetermined packaging.

Perhaps more significantly, opportunities will be available to sponsor the development of specific experiments and equipment being invented for the mission. A list of available sponsorship opportunities will be made available to all Sincere, Unselfish, Creative, Kind, Erudite, Reliable Supporters (SUCKERS).

As always, stock in the company is available (see website for current prices), along with bound mission reports and reprints of production artwork. The BPL catalogue is a source for many aerospace devices both useful and otherwise.

BPL directs the reader to all of the historical and documentary information about the company available at browerpropulsionlab.com. There can be found the 'block diagram of corporate structure', a document outlining BPL's official history and philosophy, a selection of important memos from our archives, as well as detailed mission reports, experiments, and up to the minute video of our laboratories and new dog. Our technical support telephone number has proven useful to our clients as well: (888) BPL-1848.

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The Esther M. Klein Art Gallery at the Science Center
3600 Market Street
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Mailing address:
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www.kleinartgallery.org

Visions West Gallery:
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www.visionswestgallery.com

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