

## LIMPER MISSION PRESS KIT

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Brower Propulsion Laboratory announces the latest in a series of Mars Exploration Missions that are Probably destined to remain on earth.

The launch of LIMPER (Limited Intelligence Marginally Produced Exploration Rover) is scheduled for August 1, 2007, 8:29:00 AM EDT, from its facility at Brecken Ridge, West Virginia.

### MISSION OVERVIEW

While large - scale art missions such as those created by NASA Frequently are completed in environments beyond our home planet, BPL's projects are exclusively terrestrial. Although intended as a Mars mission, LIMPER 1 will probably have to negotiate a series of contingencies and unforeseen problems to even roll off the drawing board, much less return its trove of scientific data from a world other than this one.

The possibility, even likelihood, of LIMPER's partial or complete malfunction in no way endangers the overall success of the mission, however.

The LIMPER 1 Mission is intended to fully test the semi - autonomous robot's functionality in an alien environment, conduct a number of experiments, and demonstrate the feasibility of this kind of mission. Given extreme budget and intellectual limitations, "alien" environment might not be very alien to some. The robot will be able to comport itself through a variety of terrain, and communicate with Mission Control for most of the mission. LIMPER's functions may be overridden by mission control, and its communication link will be publicly accessible.

### LIMPER DETAILS

LIMPER is driven by six servo motors attached to six aluminum wheels, four of which are directionally controlled by another four steering servos. The wheels are connected to the body of the rover by a variant of the rocker - bogey mechanism, called the Rocky Booger Suspension. This unique system enables each wheel to act independently, and even against each other one. The rover is equipped with three video cameras, the cheap kind, and a laser range finding system, which is capable, along with the cameras, of determining the exact location of the rover. Another system is being devised to figure out what that location is at any given time. Instead of an Alpha - Proton X - Ray Spectrometer, which would be used to determine the composition

of Martian soil, LIMPET is equipped with a VANDALizer. This device (Variable Although Never Determined Artistic Label - izer) is designed to deposit a unique signature on the environment which can be recognized by diagnostic equipment on board. LIMPET is powered by four lithium - polymer batteries arranged in a two - series, two parallel configuration, with a maximum power output of 4200 mAh. A large solar panel apparently charges this battery during daylight hours. LIMPET's brain is composed of PIC microcontrollers, connected via RS - 232 to a radio modem. LIMPET may be manipulated, some say controlled, via the interweb.

#### LIMPET 1 MISSION

How ever LIMPET is deployed on 1 August, whether it be by rocket - powered descent, cushioned free - fall, or hand unpacking from a crate, the mission objectives were developed to be very similar to those of the engineers at BPL: to get through with it. LIMPET is programmed to examine its environment with a special interest in looking for entities just like itself. In this aspect a peculiarly human tendency is being mimicked. LIMPET also is designed to leave "BREADCRUMBS" (Broad Round Elongated Aromatic Diatomic Carbon Rear Undercarriage Mounted Billets), or markers, periodically in its environment, and to avoid these markers. Preferring novel localities, LIMPET will tend to fill its space with its BREADCRUMBS until it can no longer move (this program is called 'fashion mode'). Another program called 'Prodigal Son' has LIMPET move autonomously to a particular location, and then wait for someone at Mission Control or on the WWW to tell it what to do. With the contingency in mind that LIMPET may remain earthbound, and then perhaps even in a very specific type of location, it has been programmed to make value judgments of an aesthetic nature. An algorithm has been developed to asses whether an image from one of LIMPET's cameras is 'good' or 'bad'. It should be noted that while in this mode, LIMPET will tend to return an assessment of 'bad' the longer it is made to examine one image. Other LIMPET mission elements include radio reception and mapping, as well as power consumption and consumption power.

#### LIMPET PRODUCTION

While being assigned an exploratory mission, LIMPET's own manufacture represents a kind of adventure. Unique among aerospace industries, Brower Propulsion Laboratory engineers don't know anything. That's how they keep their edge. Keep inventing. In fact, the entire design, production, repair, accounting, and management departments are handled by a single

person. It is the severely limited income of this individual that makes BPL so easily recognizable. That and the paucity of his formal education and manual dexterity. To follow are a series of documentary photo stills from BPL's archives pertaining to the manufacture of the first four LIMPER Test Articles. Captions explain the tortuous process of designing and building flight qualified hardware:

(contents of caption: BPL 000x; MM DD YY; LIMPER MISSION; Manufacture/Testing/Assembly/In - Mission; Part Description; Process Description

#### MISSION CONTROL

A central control, analysis, and information storage and retrieval location was developed in conjunction with the LIMPER rover hardware. LIMPER's main functions will be monitored from this location, as well as its camera feeds. Mission Control will also provide LIMPER with its connection to the InterWeb, and will therefore probably have to be just about right next to LIMPER as it conducts its mission. But people on the InterWeb, observing or participating in the mission won't mind that. Because of the unprecedented and radical design of Mission Control, i.e. its proximal relationship to the rover, the entire facility had to be integrated into one desk, and to have many of the properties and characteristics of the spacecraft itself. The Mission Control Console is a mobile desk with a set of monitors and keyboards arranged to permit one or more people access to directing and programming the LIMPER mission. Included on the console is a depression, or merely a recession, for beverages. Above each monitor is an area set aside for the personal items of any given Mission Controller, such as small trolls, or lace - framed photographs of young film actors.

#### MISSION MANAGEMENT AND PERSONNEL

Press and Feeding Officer .....	Steven Brower
Design and Anticipatory Rectification ....	S. Brower
Aleatory Systems .....	S.A. Brower
Rectification .....	"Steve" Brower
Digital and Prestidigital Machination ...	Brower, S. Andrew

BUSHWICK, BROOKLYN HEADQUARTERS

BROOKLYN NAVY YARD FACILITY

#### BPL CONTRACTORS

The following aerospace manufacturers and suppliers have contributed to the LIMPER project either as vendors or litigants:

The Home Depot.....	Structural elements, process elimination
Lowes.....	(theaters and home centers) Air conditioning
Taco Bell.....	Fuel, experimental chemistry
Emporium Gas.....	Nourishment
McMaster - Carr .....	Physical and Metaphysical components
Sam Deitchek and Sons.....	Coatings
Aircraft Spruce .....	Management Systems
Hobby Lobby .....	Motion and E-Motion control
Castro's .....	Creative Consulting and Environmental Control
Pearl Paint .....	Emergency Services
Buffum's Recycling .....	Raw Material, Potentialities
Barnes And Noble.....	Remedial Education
Strand Bookstore.....	Regular Education
Ebay.....	Equalization and Economic control
December Box.....	Infrastructure
J.R. Harvey.....	Systems