The New Race to the Moon

Dr. Robert (Bob) Richards, Founder & CEO

ODYSSEY MOON

A Commercial Lunar Enterprise

Google LUNAR XPRIZE

Ansari X PRIZE - 2004

The winning of the $10M Ansari X PRIZE by SpaceShipOne changed the public mindset toward space and inspired the Personal Spaceflight Revolution.

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Ansari X PRIZE - 2004

It was the second biggest news story of 2004
and the most successful AOL webcast ever.

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XPRIZE FOUNDATION

What's NEXT ?

"1927 - First Non-Stop Transatlantic Flight Orteig Prize"

"1961 - First Man In Space"

"1969 - First Man On The Moon"

"2004 - First Manned Private Spaceflight Ansari X PRIZE"

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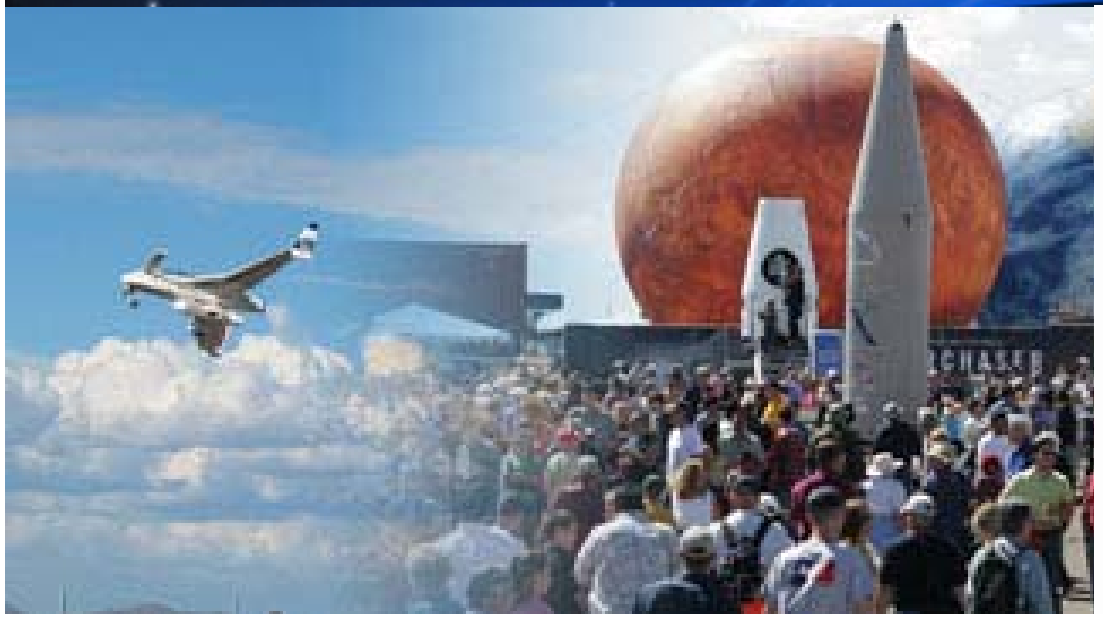
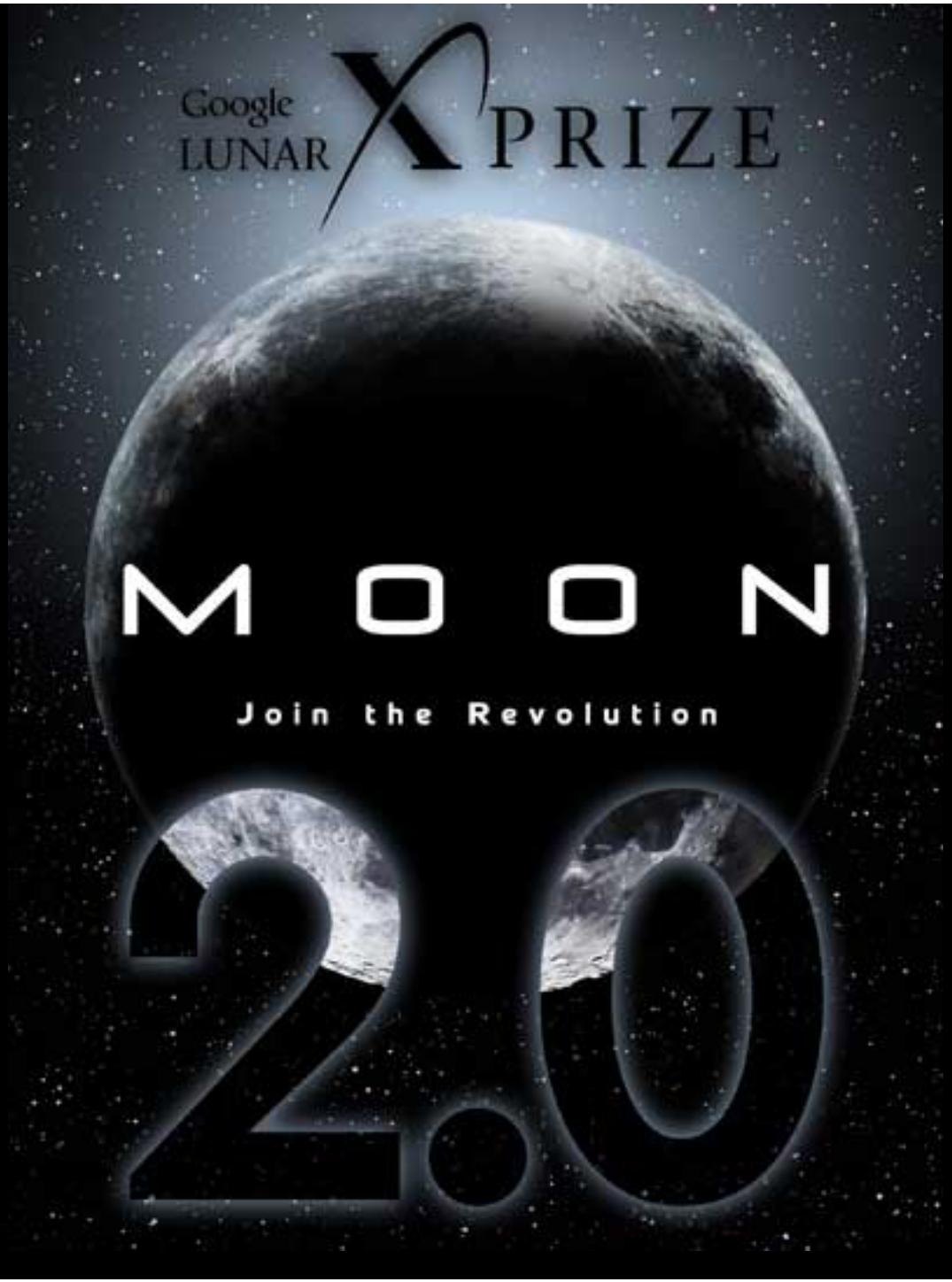
Revolution Through Competition




The $30M Google Lunar X PRIZE was announced on September 13th, 2007.
Google LUNAR X PRIZE
Google LUNAR X PRIZE

“MOON 2.0” represents the second era of lunar exploration.

Inspiring innovative business models for lunar enterprise



Odyssey Moon Enters the Race December 6th, 2007

Odyssey Moon was unveiled on Dec 6th, 2007 as the first official team of the $30M Google Lunar X PRIZE

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Google LUNAR X PRIZE

More GLXP Teams were announced on Feb 21st during a media event at Google HQ in Mountain View, California.


INTERNATIONAL
SPACE UNIVERSITY®
The new race to the Moon is international in scope.
GLXP Team Summit
May 19-20, 2008
@ International Space University

Odyssey Moon Limited

- Over two years in the making
- Long term view to lunar commerce
- Google Lunar X PRIZE a catalyst
- Based in Isle of Man
  - Favourable finance & tax regime
  - Innovative space legislation
  - Not subject to US ITAR

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Short Term Goals

- Become the first private enterprise to reach the surface of the Moon
- Be the first to market ongoing lunar mission products and services
- Create a growing and profitable commercial space business that delivers substantial returns on investment to the company's stakeholders over time
- Win the $30M Google Lunar X PRIZE competition.

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Google LUNAR X PRIZE

OML Founding Directors




- Dr. Robert (Bob) Richards, CEO
  - Co-Founder, ISU
- Dr. Ramin Khadem, Chairman
  - Former CFO, Inmarsat
- Mr. Christopher Stott
  - CEO, ManSat Ltd.
- Mr. Michael Potter
  - Managing Partner, Paradigm Ventures

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Prime Contractor: MDA

Dr. Christian Sallaberger
Vice President with MDA's Information Systems Group

- Canada's largest space company
- Represented on the OM Board
- An experienced company with substantial space heritage in providing robotics on the Space Shuttle and International Space Station, and more recently for satellite servicing and planetary exploration

MDA

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Google LUNAR XPRIZE

Mr. Jay Honeycutt
President, OMV US Operations

Mr. Jay Honeycutt
President, Odyssey Moon Ventures LLC

- President of Odyssey Moon Ventures LLC, responsible for all Odyssey Moon U.S. programs and commercial launch operations
- President of Lockheed Martin Space Operations (1997-2004)
- Director of the NASA Kennedy Space Center (1995-1997)
- Director of Shuttle Management and Operations (1989-1995)

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Dr. Alan Stern
Science Mission Director

Dr. Alan Stern
Odyssey Moon Science Mission Director

- Planetary scientist and former NASA astronaut candidate
- NASA's Associate Administrator for Space Science in 2007 and 2008, directing a $4.4B organization with 93 separate flight missions and a program of over 3,000 research grants
- Named to *Time 100 Most Influential People in the World* (2007)

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Dr. Paul Spudis
Chief Scientist

Dr. Paul Spudis
Odyssey Moon
Chief Scientist

- Deputy science team leader for the highly successful Clementine lunar mission
- Principal Investigator of the Mini-SAR imaging radar experiment on the forthcoming Chandrayaan-1 mission to the Moon
- Member of US Presidential Commission on the Implementation of United States Space Exploration Policy

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Board of Advisors

- **Dr. James D. Burke** (JPL retired) – NASA Lunar Ranger Project Manager
- **Dr. Wendell W. Mendell** – Planetary Scientist
- **Dr. Louis Friedman** – Founder and Executive Director, The Planetary Society
- **Mr. Arthur M. ("Art") Dula** – space lawyer; patent attorney; founding director of Excalibur Almaz Limited
- **Dr. J. Buckner Hightower** – founding director, Excalibur Almaz Limited; Trustee, Heinlein Prize Trust
- **Dr. Bob McDonald** – Science Journalist and Author; Host of CBC's “Quirks & Quarks” Radio Show
- **Mr. Jon Lomberg** – Artist; Chief Artist, COSMOS Television Series
- **Mr. Charles M. Chafer** – CEO, Space Services Inc.
- **Dr. David Miller** – Professor, University of Oklahoma
- **Dr. Jean-Luc Jossett** – Director, Space Exploration Institute
- **Col. M.V. “Coyote” Smith** – Former Chief, Future Concepts (Dream Works), US Pentagon

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Why Explore Space?

- Satisfy basic human instincts for exploration and knowledge
- Continue over 150,000 years of exploration's benefits
- Perpetuate exploration and settlement of new territories
- Expand Earth's economic sphere
- Create a multi-planet species

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The NewSpace Paradigm

Adding the power of private enterprise with innovative commercial business models

- **Explore** space to broaden our knowledge and imagination base;
- **Prosper** by using the unlimited energy and materials of space to increase our wealth;
- **Secure** the world by using the assets of space to protect the planet and ourselves.

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Why The Moon?

- We live in a unique two world environment - the Earth-Moon System.
  - *The Moon is a stepping stone to the rest of the Solar System and a source of solutions to some of the most pressing environmental problems that we face on the Earth.*

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Why The Moon?

- The Moon is like an 8th continent, rich in resources, floating just offshore.
  - *The Earth and Moon are like two islands floating together in the ocean of space*

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Why The Moon?

- There is stuff there we can use.
  - *The Moon's regolith is more than 40% oxygen by weight. Oxygen is the main component of rocket propellant. Much of the rest of lunar soil is silicon (useful for making solar cells) and metals like aluminum and iron.*

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Why The Moon?

- The Moon is the closest source of materials for doing anything in space.
  - *It is 22 times easier to launch materials into space from the Moon than from the Earth.*

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Why The Moon?

- We Can Create New Safe, Clean Energy for Planet Earth
  - *Clean solar energy can be sent from space to the earth with solar collectors in high Earth orbit made from lunar materials.*
  - *A single solar power satellite could power a major Earth city without CO2 or other* pollution.

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Why The Moon?

- It’s only 3 days away
  - *The Moon’s close proximity to the Earth makes it a great place for humans to learn to live and work in space while still having frequent rescue and return opportunities.*

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Why The Moon?

- We Can Back-up the Biosphere
  - *The Moon provides an ideal place to backup the biosphere and the accumulated knowledge of mankind.*

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Why The Moon?

- We Can embrace the Moon into Earths' economic and social spheres
  - *By expanding the solution set to include resources outside the Earth's biosphere we can solve seemingly intractable problems of energy and the environment and enable the remediation of the Earth.*

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Commercial Customers

- Two commercial customers were first to sign up for the inaugural “MoonOne” (M-1) mission:
  - International Lunar Observatory dual function demonstration instrument
  - Commercial lunar transportation agreement with Space Services Inc.

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Worldwide Media Attention

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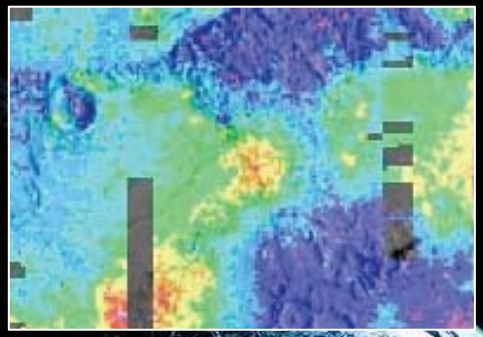
“MoonOne”: Mission Profile



- M-1 will deliver a payload suite of approximately 50kg to the Moon.
- Equatorial landing site in vicinity of scientifically interesting and potentially resource-rich dark mantle material
- Launch by July 2011

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M-1: Leading Edge Science

- Primitive, unmodified magmas from the deep mantle – clues to origin?
- Source regions contain volatiles
- Eruption mechanisms, dynamics - source of deep-seated rock fragments?

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M-1: Prospecting for Resources

- Uniform, fine-grained deposits – easy feedstock for resource processing
- Solar wind gas content may be enhanced in pyroclastics; if so, a potential “ore” deposit for H2 recovery
- Solar ^{3}He may ultimately be used as fusion energy source

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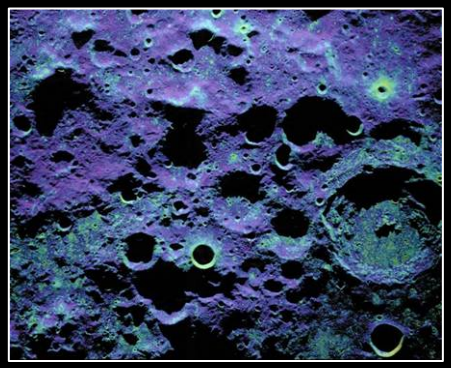
M-2: South Pole Mission



- “MoonTwo” mission to lunar south pole announced on July 20th, 2008
- Joint Venture with International Lunar Observatory Association
- Establishing permanent astrophysical observations and lunar commercial communications systems on the Moon

ILOA

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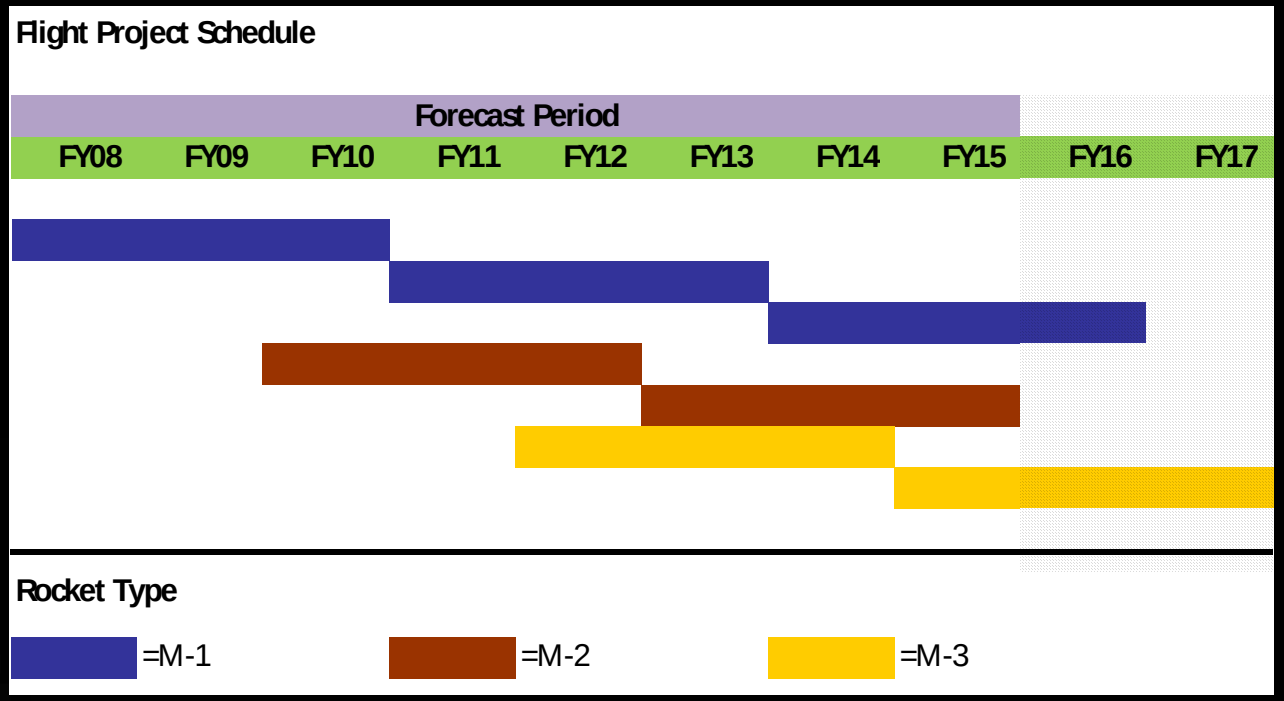
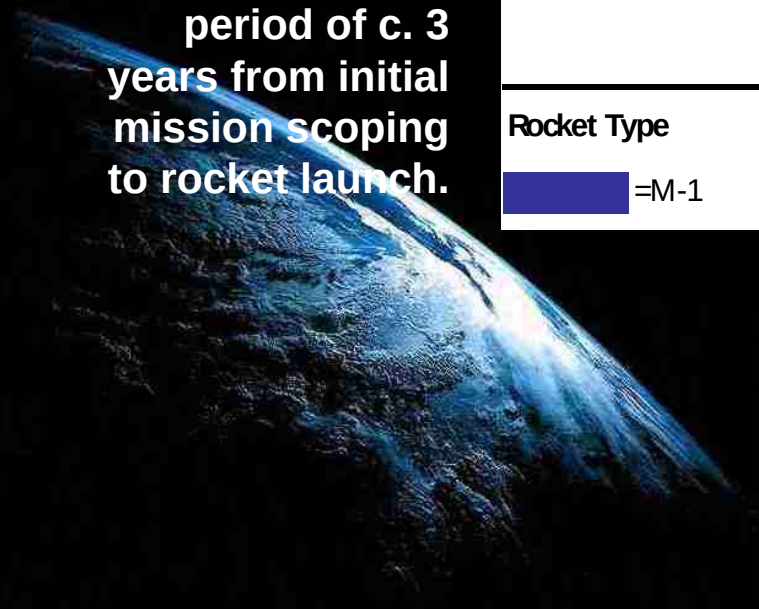
Flight Schedule

The lander flight schedule for the forecast period FY08-FY15 is illustrated in the chart. In each case the lander system has a development period of c. 3 years from initial mission scoping to rocket launch.





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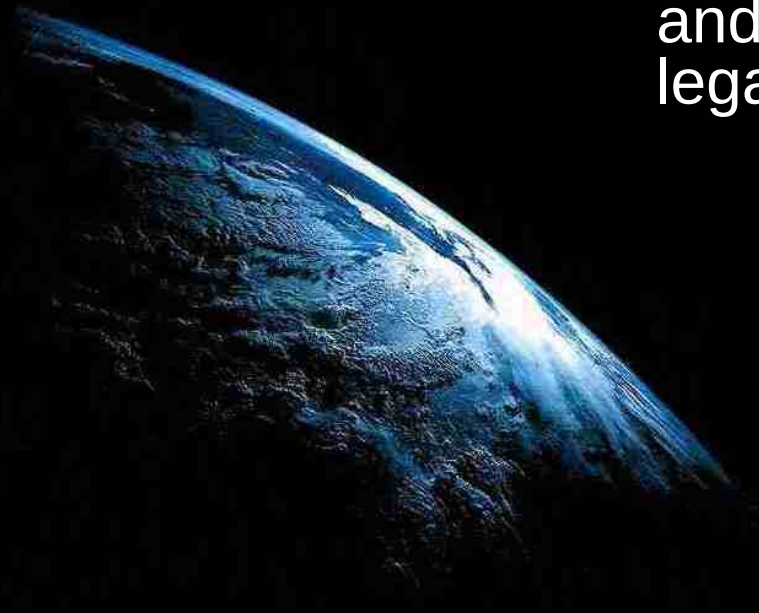
Financial Overview

- Design work began Fall 2007
- Seed capital financing complete
- Private Equity financing raise is underway in coordination with London and Isle of Man based financial and legal advisors



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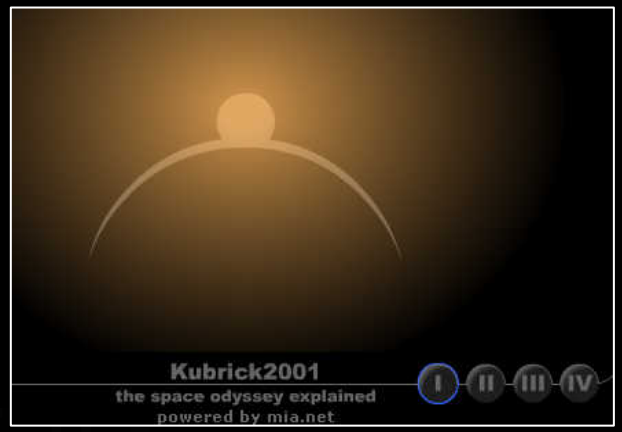
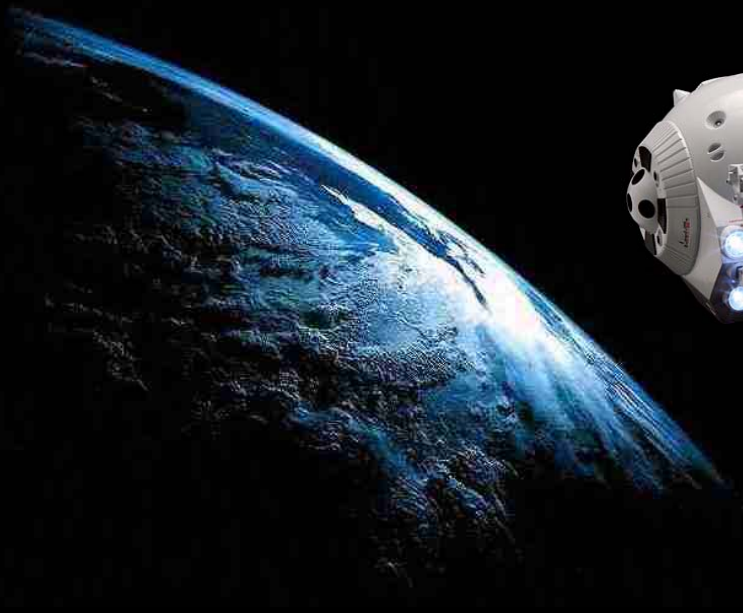
M-1: A Space Odyssey





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