

## **International Lunar Decade Declaration**

*At the International Space Development Conference, Toronto, Canada  
by the National Space Society, May 25, 2015.*

*“If God wanted man to become a spacefaring species, he would have given man a moon.”  
Krafft Ehrike *Lunar Bases and Space Activities of the 21st Century* (1985)*

We recommend that an International Lunar Decade (ILD) be initiated no later than on the 60th anniversary of the International Geophysical Year in 2017 with the full endorsement of nations participating in the International Space Exploration Coordination Group (ISECG). We urge that a campaign of lunar scientific exploration and geophysical investigation, infrastructure development, and commercial involvement be incorporated in any further formulation of ISECG's Global Exploration Roadmap by 2017. It is also recommended that those ILD projects be undertaken by non-binding voluntary collaborative efforts among ISECG member states, public-private investment partnerships, and commercial entities.

Those attending the NSS International Space Development Conference assembled to discuss the technical, economic and policy choices available to provide sustainable infrastructure in cislunar space and on the Moon. Our purpose was to enable further exploration of the Moon and its scientific, industrial and commercial development as a destination for permanent human settlement beyond the Earth and as a gateway for further exploration, human settlement, and economic development throughout the Solar System.

**Shared Understandings and Beliefs:** The exploration and development of space presents multiple opportunities to carry out a series of discrete, time limited and cost feasible objectives. Their realization requires a long-range view that can accommodate varying economic and political conditions among nations working collaboratively at multiple levels in an International Lunar Decade (ILD) campaign. The peaceful development and use of space resources should be the right of all nations, with no nation excluded. Access to space and the use of space resources, as recognized by the Outer Space Treaty\*, can enable a permanent human presence on the surface of the Moon, the extension of human presence in cislunar space and beyond, and the development of an Earth-Moon economy that welcomes and includes participation from all countries.

*Rapidly advancing space technologies* now offer higher performance at lower cost thereby opening opportunities for many more nations, research organizations and commercial businesses to work in both cislunar space and on the lunar surface.

**We therefore recommend that spacefaring nations participating in the International Space Exploration Coordination Group (ISECG) provide leadership by launching an International Lunar Decade in 2017 (on the 60th anniversary of the International Geophysical Year) to:**

- Further expand the ISECG through participation of all G-20 nations as well as those with smaller economies using affordable lunar cubesat scale spacecraft and sensors, secondary payloads, and reusable launch systems and the institutional resources of universities and commercial organizations.

- Build on the extensive scientific and engineering foundations of the Lunar Exploration Analysis Group (LEAG) Roadmap, Strategic Knowledge Gaps, and International Lunar Exploration Working Group (ILEWG) to meet scientific objectives and identify the locations of resources and sites where permanent human settlements and scientific, industrial, and commercial facilities can best be located.
- Establish an International Lunar Survey Working Group (ILSWG) to be responsible for sharing of lunar exploration data and to integrate mapping data from national lunar missions through a common geodetic registration to produce increasingly accurate and comprehensive maps of the Moon's surface within the context of the ISECG. All countries and commercial entities should have access to these nationally gathered data to facilitate scientific exploration, research, commercial activities, the location and utilization of lunar resources, and general economic lunar development in a rapidly expanding Earth-Moon economic system.

The ILD organized within the framework of the ISECG would include working agreements, trial protocols, and common international standards, providing for transparent and open participation of all the nations in the exploration and economic development of the Moon. The framework would recognize the property rights of individuals and of commercial and non-governmental entities (rights to access and use), recognize investments and financing of lunar infrastructure, and identify mechanisms for multilateral dispute resolution in the context of the Outer Space Treaty.

**Specific ILD infrastructure projects and milestones of development could include:**

1. Fuel Depots in LEO and Earth-Moon Lagrange locations and the lunar surface which extend our reach in space.
2. The development of navigation and communications infrastructures in cislunar space and on the surface of the Moon.
3. The further development of detection and tracking space observatories, which can detect both space debris and near-Earth asteroids.
4. A permanent Earth-Moon Lagrange-point station as both a research and gateway facility and for tele-operations on and transportation to the lunar surface.
5. A permanent human base on the lunar surface.
6. The development of affordable cubesat scale spacecraft and space lab projects, expanding educational, scientific, and commercial opportunities for a broad array of ISECG members.
7. Research, development, and commercial initiatives, including use of lunar in-situ resources leading to a high degree of self-sufficiency.
8. An International Lunar Research/Development Park Working Group should be formed with members from commercial entities and national space agencies to provide terrestrial demonstrations of common-standards, new technologies, and interoperability of systems that will subsequently operate in cislunar space and on the lunar surface (as well as precursor technologies for use in orbit around and on the surface of Mars).

\* Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies

Reference: <http://www.nasa.gov/exploration/about/isecg/>