

# THE FOR ALL MOONKIND MOON REGISTRY: DYNAMICALLY ADVANCING THE SUSTAINABILITY OF LUNAR ACTIVITIES

58<sup>th</sup> Session of the Scientific and Technical  
Committee  
April 28, 2021

FOR ALL  
MOONKIND™



Help us protect  
our human heritage.

FOR ALL  
MOONKIND™  
ForAllMoonkind.org



[www.forallmoonkind.org](http://www.forallmoonkind.org)

**For All Moonkind** is a non-profit organization that seeks to **protect and preserve human history and heritage** in outer space.

Our **entirely volunteer team** of space lawyers and policymakers are working to develop reasonable and practical protocols that will balance development and preservation and include systems to select, manage and study relevant sites.

In so doing, we seek to **promote the exploration** and development and open the debate on equally pressing issues of property and resource extraction.

FOR ALL  
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*I think probably one of the most significant things we can think about when we think about Apollo is that it has opened for us—**'for us' being the world**—a challenge of the future.*

*The door is now cracked, but the promise of the **future lies in the young** people, not just in America, but **the young people all over the world learning to live and learning to work together.***

Apollo 17 astronaut and Commander,  
Eugene Cernan, the last human to walk on  
the Moon.



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The **LTS Guidelines** define the sustainability of outer space activities as:

- the **ability to maintain the conduct of space activities indefinitely into the future** in a manner that realizes the objectives of **equitable access to the benefits** of the exploration and use of outer space for peaceful purposes,
- in order to **meet the needs of present generations** while **preserving the outer space environment for future generations**.

UN Doc. A/74/20

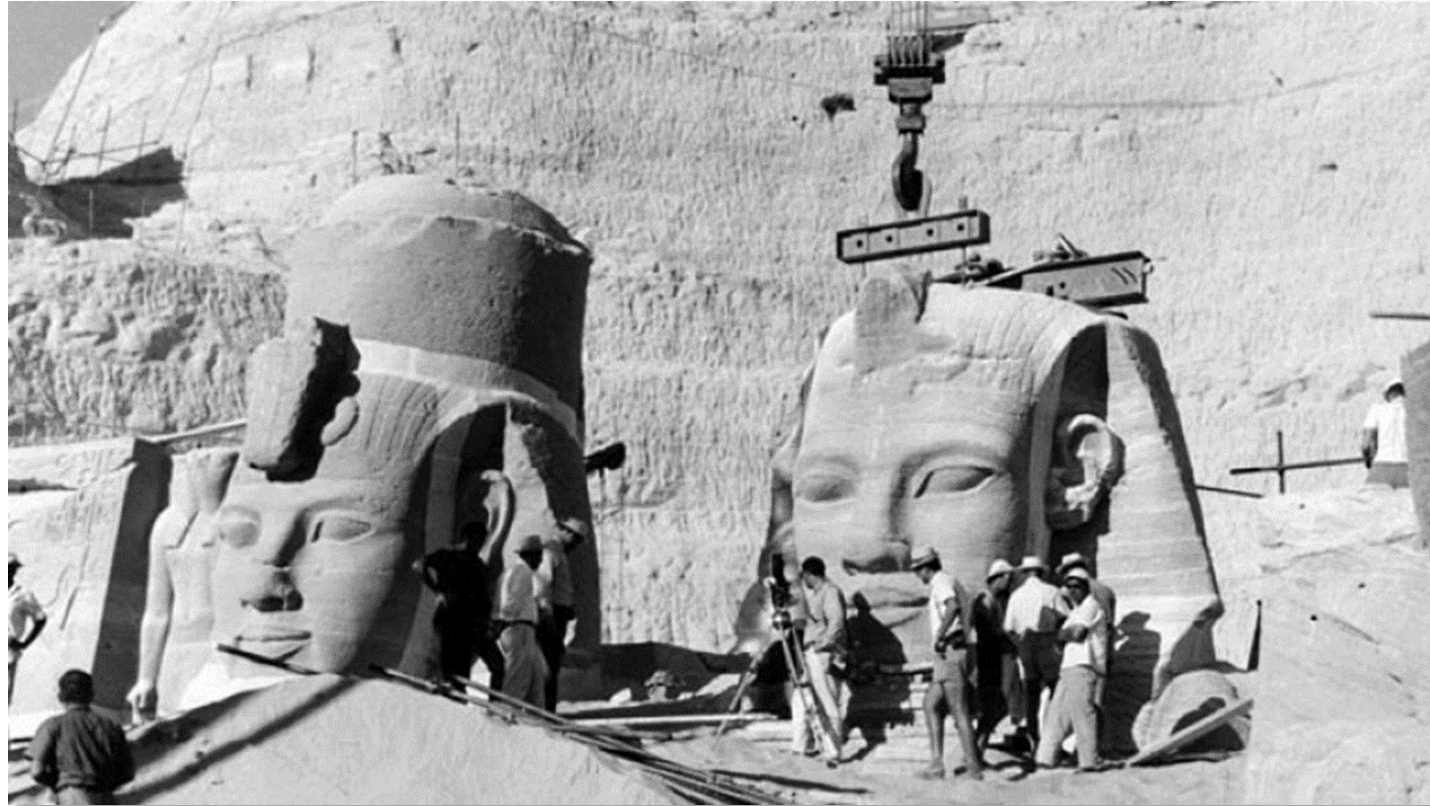
UN Doc. A/AC.105/C.1/L.366





**International cooperation** is required to:

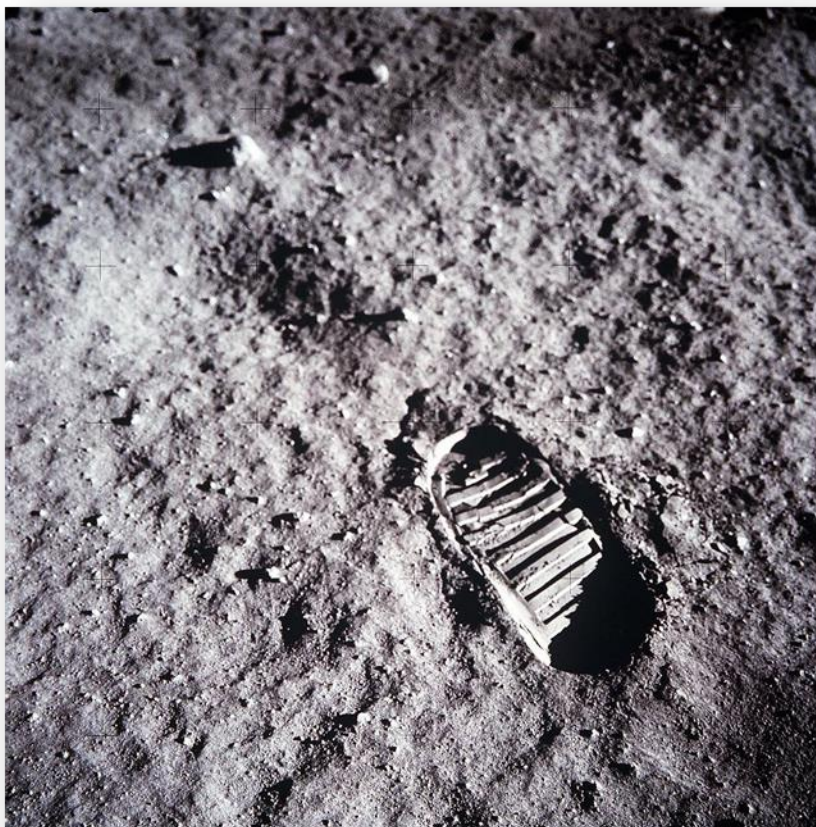
- *implement the guidelines effectively; and*
- *monitor their impact and effectiveness ensure that, as space activities evolve, they continue to reflect the most current state of knowledge of pertinent factors influencing the long-term sustainability of outer space activities, particularly with regard to the identification of factors that influence the nature and magnitude of risks associated with various aspects of space activities or that may give rise to potentially hazardous situations and developments in the space environment.*



*The International Rescue Nubia Campaign “will be numbered among the few major attempts made in our lifetime by the nations to assume their common responsibility towards the past so as to move forward in a spirit of kinship towards the future.”*

UNESCO Director-General Amadou-Mahter M'Bow





[The One Small Step Law](#)

## One Small Step To Protect Human Heritage in Space Law:

The lunar landing sites of the **Apollo 11** spacecraft, **the robotic spacecraft that preceded** the Apollo 11 mission, and **the crewed and robotic spacecraft that followed**, are of outstanding universal value to humanity.

Such landing sites—

- are the first archaeological sites with human activity that are not on Earth;
- provide evidence of the first achievements of humankind in the realm of space travel and exploration; and
- contain artifacts and other evidence of human exploration activities that remain a potential source of cultural, historical, archaeological, anthropological, scientific, and engineering knowledge.

**Guideline C.2** recommends that the international community share experience related to the long-term sustainability of outer space activities and develop new procedures, as appropriate, for information exchange.

**Guideline C.4** recommends that the international community raise general public awareness of the important societal benefits of space activities and of the consequent importance of enhancing long-term sustainability of outer space activities.

**Annex II**

**Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee on the Peaceful Uses of Outer Space**

**I. Context of the guidelines for the long-term sustainability of outer space activities**

**Background**

1. The Earth's orbital space environment constitutes a finite resource that is being used by an increasing number of States, international intergovernmental organizations and non-governmental entities. The proliferation of space debris, the increasing complexity of space operations, the emergence of large constellations and the increased risks of collision and interference with the operation of space objects may affect the long-term sustainability of space activities. Addressing these developments and risks requires international cooperation by States and international intergovernmental organizations to avoid harm to the space environment and the safety of space operations.

2. Space activities are essential tools for realizing the achievement of the Sustainable Development Goals. Hence, the long-term sustainability of outer space activities is of interest and importance for current and emerging participants in space activities, in particular for developing countries.

3. Over the years, the Committee on the Peaceful Uses of Outer Space has considered different aspects of the long-term sustainability of outer space activities from various perspectives. Building on those previous efforts and other relevant related efforts, the Working Group on the Long-term Sustainability of Outer Space Activities of the Scientific and Technical Subcommittee has developed a set of voluntary guidelines with a view to setting out a holistic approach to promoting the long-term sustainability of outer space activities. The guidelines comprise a compendium of internationally recognized measures for, and commitments to, ensuring the long-term sustainability of outer space activities and, in particular, enhancing the safety of space operations.

4. The development of voluntary guidelines is premised on the understanding that outer space should remain an operationally stable and safe environment that is maintained for peaceful purposes and open for exploration, use and international cooperation by current and future generations, in the interest of all countries, irrespective of their degree of economic or scientific development, without discrimination of any kind and with due regard for the principle of equity. The purpose of the guidelines is to assist States and international intergovernmental organizations, both individually and collectively, to mitigate the risks associated with the conduct of outer space activities so that present benefits can be sustained and future opportunities realized. Consequently, the implementation of the guidelines for the long-term sustainability for outer space activities should promote international cooperation in the peaceful use and exploration of outer space.

**Definition, objectives and scope of the guidelines**

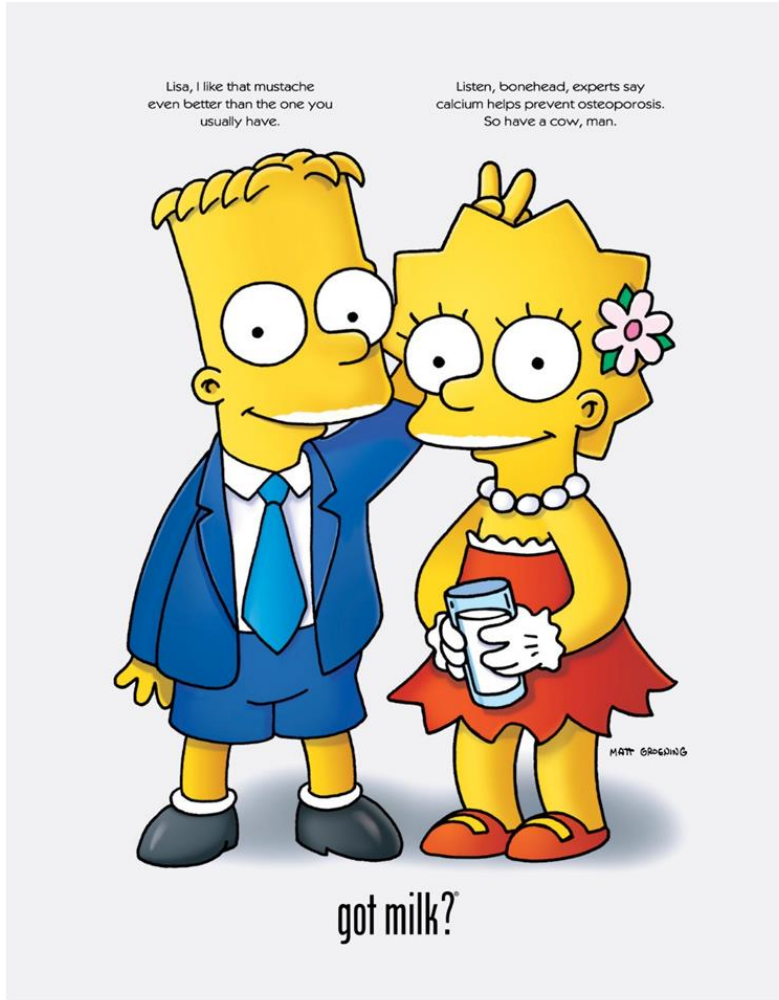
5. The long-term sustainability of outer space activities is defined as the ability to maintain the conduct of space activities indefinitely into the future in a manner that realizes the objectives of equitable access to the benefits of the exploration and use of outer space for peaceful purposes, in order to meet the needs of the present generations while preserving the outer space environment for future generations. This is consistent with, and supports, the objectives of the Declaration of Legal Principles





[www.moonregistry.forallmoonkind.org](http://www.moonregistry.forallmoonkind.org)

# Award Winning Designer



*An interactive Registry for all the material on the Moon introduced by human activity is a worthy cause, without a doubt.*

Apollo 17 astronaut and scientist Dr. Harrison Schmitt, the second-to-last human to walk on the Moon.





*Visiting the Moon was an incredible privilege and experience. I can't wait for someone to go back and find the picture of my family that I left behind. In the meantime, the For All Moonkind Moon Registry is a spectacular resource. It's one small way to share this accomplishment of humanity with humanity.*

Apollo 16 astronaut and lunar module pilot Charles M. Duke, Jr., the tenth human to walk on the lunar surface.



*When you consider how important history is as a compass for our future, it's shocking to realize how inaccessible it is. The For All Moonkind Moon Registry is like an all-access pass to the history of human activity on the Moon. Even better, the crowdsourcing function will allow the people who worked on missions like Luna and Apollo to connect directly with the very students who will be inspired by their work*

*Dr. James Hansen, official biographer of Neil Armstrong.*



UNITED STATES — NASA

## APOLLO 17: CREWED LUNAR LANDING

📍 PROCESSIONING 📍 IN SPACE 📍 08/06/1972



### DESCRIPTION

The mission of the Apollo program was to perform a crewed lunar landing.

The first four flights, including Apollo 10, tested the equipment used to ultimately place humans on the lunar surface. The first Apollo flight happened in 1968. The first Moon landing took place in 1969. The last Moon landing was in 1972. A total of twelve humans walked on the Moon as a result of the Apollo program. The astronauts conducted scientific research, studied the lunar surface and collected Moon rocks to bring back to Earth.

Per NASA: Scientific objectives of the Apollo 17 mission included, geological surveying and sampling of materials and surface features in a preselected area of the Taurus-Littrow region; deploying and activating surface experiments; and conducting in-flight experiments and photographic tasks during lunar orbit and transearth coast. These objectives included deployed experiments, such as the Apollo Lunar Surface Experiments Package, or ALSEP, with a heat flow experiment; lunar seismic profiling, or LSP; lunar surface gravimeter, or LSG; lunar atmospheric composition experiment, or LACE; and lunar ejecta and meteorites, or LEAM. The mission also included lunar sampling and lunar orbital experiments. Biomedical experiments included the Biostack II experiment and the BIOCORE experiment.

### MISSION DETAILS

Mission Name: Apollo 17
Mission Type: Crewed Lunar Lander
Operator: NASA (National Aeronautics and Space Administration)
Launching State: United States
Location: Taurus-Littrow
Latitude: 20.1923
Longitude: 30.7655
Launch Date: 7 December 1972, 05:33:00 UT
Landing Date: 11 December 1972, 19:54:57 UT
Crew: Eugene A. Cernan, commander; Harrison H. Schmitt, lunar module pilot; Ronald E. Evans, command module pilot
Objects on or Related to Site: N/A



INDIA — ISRO

## CHANDRAYAAN-2: LUNAR ORBIT

📍 PROCESSIONING 📍 IN SPACE 📍 08/23/2019



### DESCRIPTION

Chandrayaan-2 mission is a highly complex mission, which represents a significant technological leap compared to the previous missions of ISRO, which brought together an Orbiter, Lander and Rover with the goal of exploring south pole of the Moon. This is a unique mission which aims at studying not just one area of the Moon but all the areas combining the exosphere, the surface as well as the sub-surface of the moon in a single mission.



### MISSION DETAILS

Mission Name: Chandrayaan-2
Mission Type: Lunar Orbiter
Operator: ISRO (Indian Space Research Organization)
Launching State: India
Location: Precise location undetermined or undisclosed
Latitude: N/A

Read more: <https://www.isro.gov.in/chandrayaan2-home-0>

Heritage Consideration

Ongoing mission.

China — CNSA

## CHANG'E 3: LUNAR LANDING

📍 PROCESSIONING 📍 IN SPACE 📍 12/01/2013

### OBJECT ON OR RELATED TO SITE

Object Name:  
Chang'e 3 Lander

Cospar: 2013-070A

Norad: N/A

Location: Precise location unknown or undisclosed.

Launch Date: 1 December 2013, 17:30 UT

Landing Date: 14 December 2013, 13:11 UT

Deployment: N/A

End Date: N/A

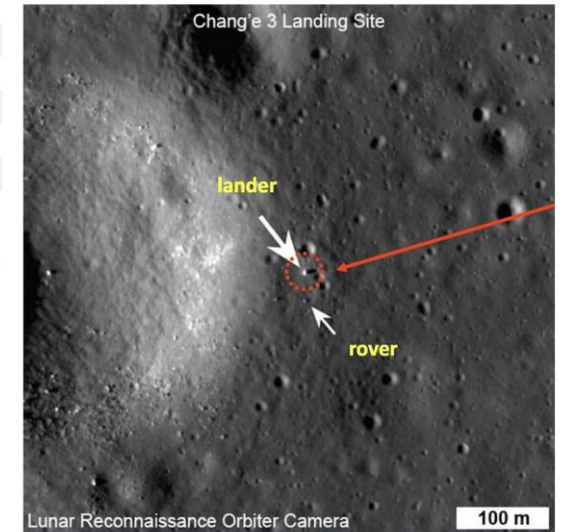
Function: Lunar exploration.

Image Source:  
National Astronomical Observatories of China

### DESCRIPTION

Chang'e 3 was a Chinese National Space Agency (CNSA) lunar landing mission designed to study the Moon from its stationary landing platform and with a rover.

Chang'e 3 comprised of a Lunar Landing Vehicle (LLV) with a total mass of 3700 – 3800 kg. The LLV consisted of a soft lander and rover, designated Yutu (Jade Rabbit). The lander has a mass of 1200 kg and carried four scientific instruments. The Yutu rover was about 1.5 meters tall and has a mass of 120 kg with a 20 kg payload consisting of four instruments.



Read more: <https://solarsystem.nasa.gov/missions/change-3/in-depth/>



Help us document human history in space  
**SHARE YOUR STORY**



**Have a Story or Photo About the Moon? Did We Miss or Get Something Wrong? Can you fill in some details?**

**We want to hear from you.**

We know we're not perfect, and we're counting on your help. Let us know where we messed up.

We also know that countless individuals made contributions to human history in space that may not have yet been recorded, so we invite you to submit your stories to us.

All submissions will be reviewed and could end up in the For All Moonkind Moon Registry. Thank you for helping us document human history in space!

Your name

Your email

Subject

Your story

SUBMIT

Success through  
crowdsourcing:

We invite everyone  
to contribute their  
knowledge and  
experience through  
the website contact  
page.

What's next?

## FUTURE MISSIONS



**Humanity is headed back to the Moon! We're working on the details, and we know we're missing some (tell us about them!). But future missions include:**

- [CAPSTONE](#) – NASA (USA) Lunar Navigation and Test Orbiter (2021)
- [Peregrine Mission 1](#) – NASA (USA) CLPS Lunar Lander (2021)
- [Luna 25](#) – Roscosmos (Russia) Lunar Lander (2021)
- [IM-1](#) – NASA (USA) CLPS Lunar Lander (2021)
- [LunaH-Map](#) – NASA (USA) Lunar Orbiting CubeSat (2021)
- [Lunar Flashlight](#) – NASA (USA) Lunar Orbiting CubeSat (2021)
- [Lunar Ice Cube](#) – NASA (USA) Lunar Orbiting CubeSat (2021)
- [LunIR](#) – NASA (USA) Lunar Flyby and Technology Test CubeSat (2021)
- [Cislunar Explorers](#) – NASA (USA) Technology Test CubeSats (2021)
- [OMOTENASHI](#) – JAXA (Japan) Lunar Lander CubeSat (2021)
- [EQUULEUS](#) – JAXA (Japan) L2 Orbiting Lunar CubeSat (2021)
- [SLIM](#) – JAXA (Japan) Lunar Lander (2022)
- [Korea Pathfinder Lunar Orbiter](#) – KARI (South Korea) Lunar Orbiter Mission (2022)
- [XL-1 Lander](#) – NASA (USA) CLPS Lunar Lander (2022)
- [Prime 1](#) – NASA (USA) CLPS Lunar Lander (2022)
- [VIPER](#) – NASA (USA) Lunar South Pole Rover (2023)
- [Chang'e 6](#) – CNSA (China) Lunar Sample Return Mission (2023-24)
- [Lunar Trailblazer](#) – NASA (USA) Lunar Orbiting Small Satellite (2024)
- [Chang'e 7](#) – CNSA (China) Lunar Survey Mission (TBD)
- [Chang'e 8](#) – CNSA (China) Lunar Technology Test Mission (TBD)

# Thank you

<https://moonregistry.forallmoonkind.org/>

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