

HUMAN SPACE EXPLORATION

From once being luxury, space exploration has now become the necessity for the mankind. It encompasses satellites for communication, earth observation and navigation. Humans are exploring the space in person, using probes or through telescopes. It will usher in a new era which will enable humans to travel to distant planets and explore the possibility of being multi-planet species. Yuri Gagarin from Soviet Union became the first human to journey into outer space. Travelling in the Vostok 1 capsule, Gagarin completed one orbit of Earth on 12 April 1961.

Official First Day cover of "America's Space Achievements"

First Day cover of Yuri Gagarin (First man in Space) signed by Wing Commander Rakesh Sharma (First Indian in Space)

EXHIBIT PLAN

1. Title page -
2. World of Satellites
3. Space Shuttle Program
4. Moon Exploration
5. Space Probes
6. International Space Cooperation
7. Space Laboratories
8. Societal Benefits of Space Research

PHILATELIC IMPORTANCE

The captions of the uncommon and rare items are indicated in red colour just beneath the displayed items.

HUMAN SPACE EXPLORATION

WORLD OF SATELLITES

On October 4, 1957, the Soviet Union opened the Space Age with the launch of **Sputnik**, the world's first artificial satellite. The Aryabhata spacecraft, was India's first satellite. The world's first communication satellite **ECHO 1** was placed in orbit by NASA. India's first communication satellite **APPLE** was placed in orbit in 1981. Subsequently various communication and remote sensing satellites are placed in orbit by spacefaring nations.

Maxim card commemorating the beginning of space age with launch of World's first artificial satellite - SPUTNIK

First day cover commemorating World's first communication satellite ECHO 1

First day cover commemorating World's first communication satellite ECHO 1

HUMAN SPACE EXPLORATION

SPACE SHUTTLE PROGRAM

Space Shuttle program was carried out by NASA, US which accomplished routine transportation for earth or orbit crew and cargo. It was officially named as **Space Transportation System (STS)**.

Launch of first space shuttle by NASA

Launch of Columbia space shuttle

Miniature sheet of Space Shuttle Discovery (STS 114)

First Day cover of Challenger landing at Kennedy Space Center

First day cover of launch of Space Shuttle Discovery (STS 60)

HUMAN SPACE EXPLORATION

MOON EXPLORATION

The Apollo program, also known as Project Apollo, was the third United States human spaceflight program carried out by the National Aeronautics and Space Administration (NASA), which succeeded in preparing and landing the first humans on the Moon from 1968 to 1972. There were in total 14 missions under the Apollo program.

Apollo 8 - First Manned lunar orbit

Apollo 11 - First Men on the Moon

Chandrayaan-1 - India's first mission to moon

Chandrayaan-1 - India's first mission to moon (signed by ISRO Chairman G Madhavan Nair)

HUMAN SPACE EXPLORATION

SPACE PROBES

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Mars Orbiter Mission (MOM) is India's first interplanetary mission to planet Mars with an orbiter craft designed to orbit Mars in an elliptical orbit. It is configured to carry out observation of physical features of Mars and carry out limited study of Martian atmosphere.

FDC of Pioneer 10 scanning Jupiter's cloud (Exploring Saturn through flyby)

India's Mars Orbiter mission special cover signed by Shri A S Kiran Kumar, Ex Chairman ISRO

Mars Orbiter Mission (MOM) special cover signed by Shri A S Kiran Kumar, Ex Chairman ISRO

HUMAN SPACE EXPLORATION

INTERNATIONAL SPACE CO-OPERATION

Apollo-Soyuz was the first crewed international space mission, carried out jointly by the United States and the Soviet Union in July 1975.

INSAT-3B satellite launch on Ariane Rocket (India-European Space Agency Joint Cooperation)

ARIANE 505 - V128 satellite - Astiar - Insat 3B

India-USSR space co-operation Airmail (Above), India France Joint Issue Maxim card (France Cancellation)

HUMAN SPACE EXPLORATION

SPACE LABORATORIES

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MIR Space station, USSR Souvenir sheet

Skylab - First United States Space Station

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Spacelab 1 (STS 9) was launched on 28 Nov 1983 from Kennedy Space Center, Florida, on board Space Shuttle Columbia. Also on board was Ulf Merbold, who became the European Space Agency's first astronaut in space. The 10-day Spacelab-1 mission marked ESA's entry into human spaceflight activities. It completed 166 orbits of the Earth, on a mission which lasted 10 days, 7 hours and 47 minutes subsequently landing at California on 8 December 1983. The mission also marked the maiden flight of Spacelab, the first purpose built space laboratory.

HUMAN SPACE EXPLORATION

SOCIAL BENEFITS OF SPACE RESEARCH

More than fifty years of human activity in space have produced societal benefits that improve the quality of life on Earth. It includes the space based telescopes, observatories to better utilise the benefits of space research.

VIKRAM SARABHAI Father of Indian Space Program

INDIA IN SPACE Se-tenant released in 2000 by India post

INDUSTRIE & TECHNIK Radioteleskop

INDUSTRIE & TECHNIK 53

Palomar Mountain Observatory

PROJECT RUMIKIN First military communication satellite

Palomar Mountain Observatory

Miss Barbara Roberts, 9401 Meadowbrook Road, Dallas, Texas.

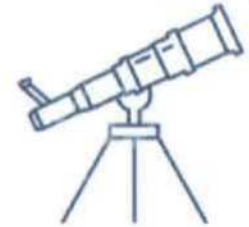
SPECIAL COVER FOR USAGE OF SPACE TECHNOLOGIES

METER CANCEL OF EARTH STATION ANTENNA Transmitted cover from ISRO post office

Future space exploration goals call for sending humans and robots beyond Low Earth Orbit and establishing sustained access to destinations such as the Moon, asteroids and Mars. Even the life of the people on earth is greatly enhanced as an outcome of space research in the form of improving health care as an outcome of experiments conducted in space, protecting our planet from climate change, enhancing safety on earth, improving day to day life in the form of communication, weather forecasting, remote sensing for efficient utilisation of the resources.

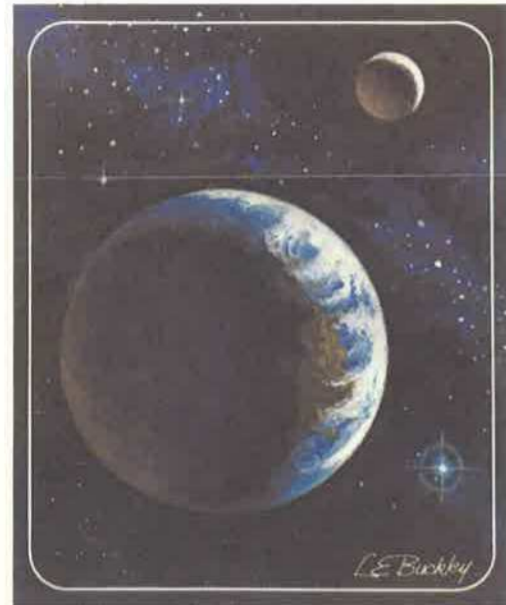


HUMAN SPACE EXPLORATION



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OFFICIAL FIRST DAY OF ISSUE



"We came in peace for all mankind."

AMERICA'S SPACE ACHIEVEMENTS 1961-1981



प्रथम दिवस आवरण FIRST DAY COVER



यूरी गगारिन YURI GAGARIN

Circling the earth in the orbital spaceship I marvelled at the beauty of our planet. People of the world! Let us safeguard and enhance this beauty - not destroy it.

YURI GAGARIN



Best wishes!

Rakesh Sharma



Yuri Gagarin
First Human into outer space

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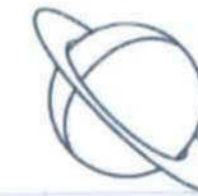
PHILATELIC IMPORTANCE

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First Day cover of Yuri Gagarin (First man in Space) signed by Wing Commander Rakesh Sharma (First Indian in Space)

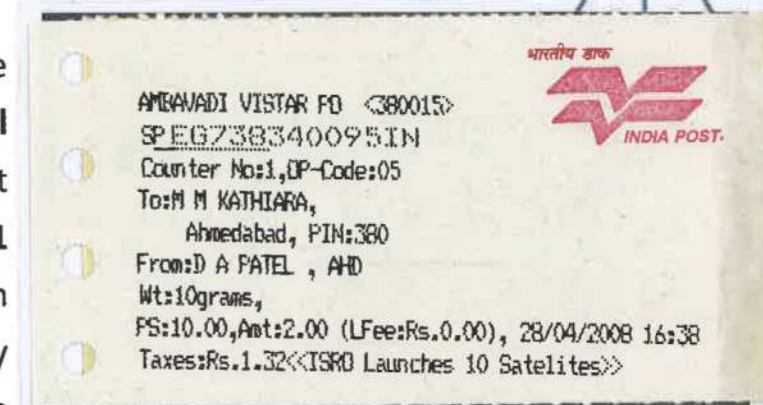


HUMAN SPACE EXPLORATION

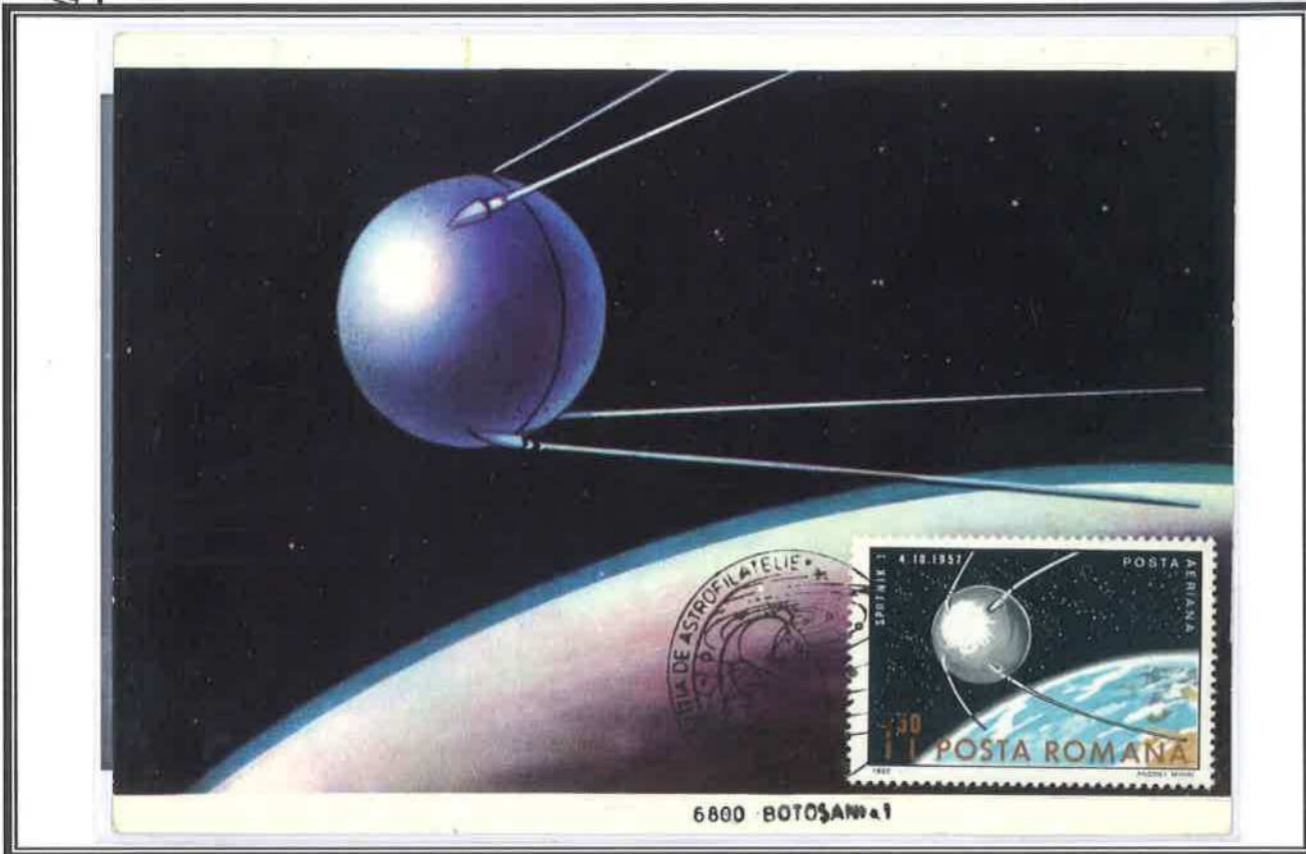


WORLD OF SATELLITES

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ISRO launches 10 satellites message of Speed post booking slip



Maxim card commemorating the beginning of space age with launch of World's first artificial satellite - SPUTNIK



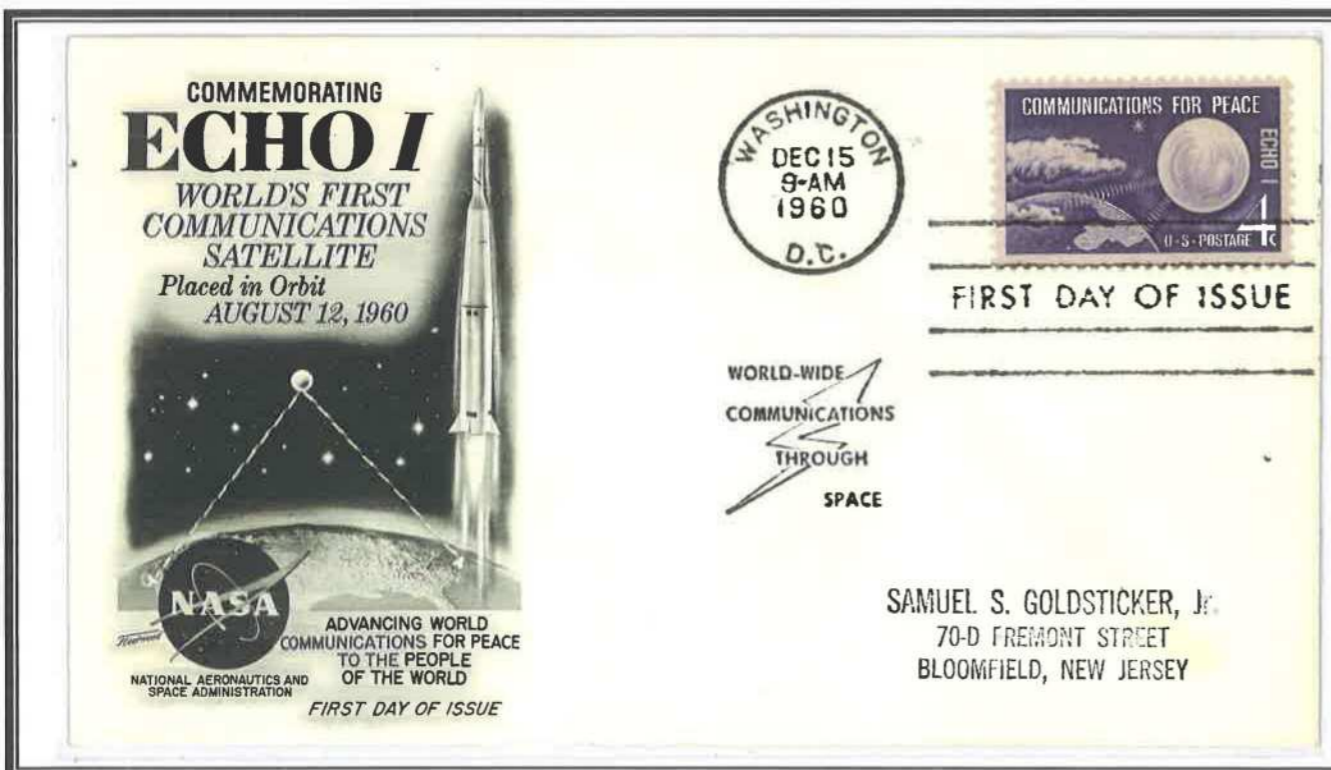
ARYABHATA
First Indian satellite



APPLE
First Indian communication satellite



IRS 1A
Indian Remote Sensing Satellite



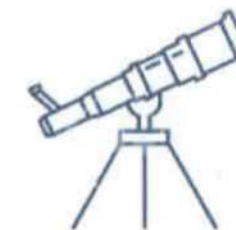
First day cover commemorating World's first communication satellite ECHO 1



First day cover commemorating World's first communication satellite ECHO 1

HUMAN SPACE EXPLORATION

SPACE SHUTTLE PROGRAM



SPACE CENTER STAMP CLUB SALUTES
SHUTTLE
A NEW ERA IN SPACE

Space Shuttle program was carried out by NASA, US which accomplished routine transportation for earth or orbit crew and cargo. It was officially named as **Space Transportation System (STS)**

Space Shuttle **DISCOVERY**
Mission STS 114 Launch (July 26, 2005)

SEP 19 1976 HOUSTON TX
SPACE SHUTTLE A NEW ERA
COLUMBIA
APR 12 AM 1981 KENNEDY SPACE CENTER FL
FOR BENEFITS ON EARTH
USA 15c
USA 3c

Launch of First space shuttle by NASA

Launch of Columbia space shuttle →

Miniature sheet of Space shuttle Discovery (STS 114)

CHALLENGER MAKES THE FIRST SHUTTLE LANDING AT KENNEDY SPACE CENTER
JUN 24 AM 1983 KENNEDY SPACE CENTER FL
TITUSVILLE-MOONPORT STAMP CLUB OFFICIAL COMMEMORATIVE COVER

SPACE SHUTTLE DISCOVERY STS-60
FEB 3 1994 NASSAU BAY BR HOUSTON
USA 29

3615 chespace ches
75 PARIS 75 R. DES HALLES (75) 02.12.88
REPUBLIQUE FRANÇAISE *000 POSTES NJ 975
SPECIAL FRENCH CANCEL FOR STS - 27

First Day cover of Challenger landing at Kennedy Space Center

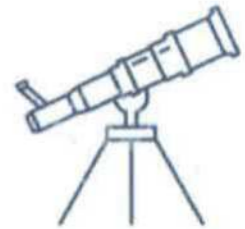
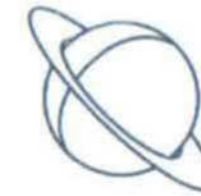
First day cover of launch of Space shuttle Discovery (STS 60)

Meter cancel of STS 27 Shuttle

Under the STS program the first flight took place on 12 April 1981. Under this program the last flight took place on 8 July 2011. Space shuttle **Columbia** was the first shuttle to reach space when it was launched from NASA's Kennedy Space Center on Apr. 12, 1981. **Challenger** was the second Space Shuttle orbiter to fly into space after Columbia, and launched on its maiden flight in April 1983. Space Shuttle **Discovery** is one of the orbiters from NASA's Space Shuttle program and the third of five fully operational orbiters to be built. STS60 mission used NASA Space Shuttle Discovery, which lifted off from Kennedy Space Center, Florida on 3 February 1994.



HUMAN SPACE EXPLORATION



MOON EXPLORATION



FIRST DAY OF ISSUE



Neil Armstrong
First man on moon

The Apollo program, also known as **Project Apollo**, was the third United States human spaceflight program carried out by the National Aeronautics and Space Administration (NASA), which succeeded in **preparing and landing the first humans on the Moon from 1968 to 1972**. There were in total 14 missions under the Apollo program.



Man on moon

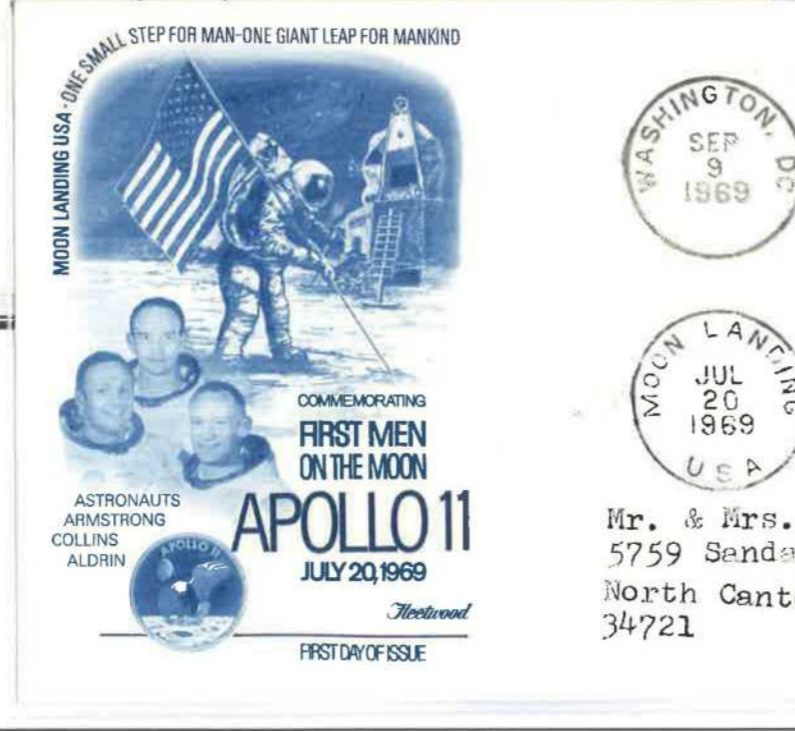


Moon Landing – Overprint stamp

Apollo 8 – First Manned lunar orbiter
Apollo 11 - First Men on the moon

Apollo 8 was the first crewed spacecraft to leave low Earth orbit and the first human spaceflight to reach the Moon. The crew orbited the Moon ten times without landing, and then departed safely back to Earth.

Apollo 11 was the American spaceflight that first landed humans on the Moon. **Commander Neil Armstrong** and lunar module pilot Buzz Aldrin landed the Apollo Lunar Module Eagle on July 20, 1969,



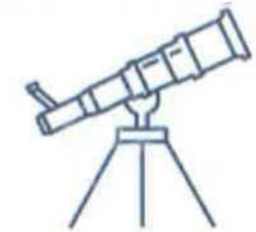
Chandrayaan1 – India's first mission to moon
(Signed by ISRO Chairman G Madhavan Nair)

Chandrayaan-1 was the first Indian lunar probe under the Chandrayaan program. It was launched by the Indian Space Research Organisation in October 2008, and operated until August 2009. The mission included a lunar orbiter and an impactor. The Chandrayaan-1 mission performed high-resolution remote sensing of the moon in visible, near infrared (NIR), low energy X-rays and high-energy X-ray regions.



14वीं राज्यस्तरीय अन्तर स्कूल डाक टिकट प्रदर्शनी, स्कूलपैक्स 2009
14th State Level Inter School Stamp Exhibition, Schoolpex 2009

HUMAN SPACE EXPLORATION



SPACE PROBES



Probing the Planets

From 82,000 miles above the largest planet, the eyes and ears of Pioneer 10 scan Jupiter's cloud tops.

FDC of Pioneer 10 scanning Jupiter's cloud

FDC of Mariner spacecraft
(Exploring Saturn through flyby)

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FIRST DAY OF ISSUE



FLIGHT OF MARINER SPACECRAFT
PLANNED FOR 1977 LAUNCH WITH FLY-BY
OF SATURN SCHEDULED FOR 1981

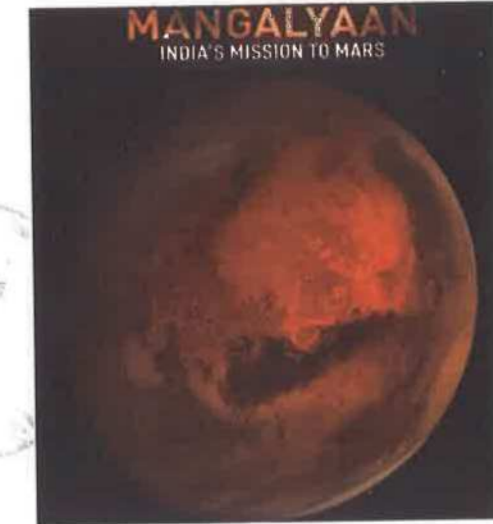
OFFICIAL FIRST DAY COVER

India's Mars Orbiter mission special cover
signed by Shri A S Kiran Kumar,
Ex chairman ISRO

Mars Orbiter Mission (MOM) is India's first interplanetary mission to planet Mars with an orbiter craft designed to orbit Mars in an elliptical orbit. It is configured to carry out observation of physical features of Mars and carry out limited study of Martian atmosphere.



FIRST DAY OF ISSUE



2nd anniversary of Mars orbiter mission!
Nov 5, 2015

Postal used cover to commemorate 2nd anniversary of Mars Orbiter mission



विशेष आवरण Special Cover
विज्ञान दिवस VIGYAAN DIWAS



मंगल ग्रह परिक्रमा अभियान :
मंगल ग्रह के लिए भारत का प्रथम अभियान
Mars Orbiter Mission: India's First Mission to MARS

16-01-2015



Mars Orbit
Insertion (MOI)
24-09-2014

आ सी किरण कुमार

कनपेक्स 2015 KARNAP
विज्ञान दिवस
VIGYAAN DIWAS

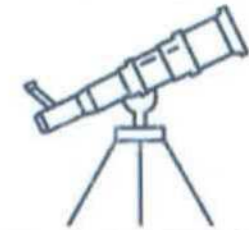


बेंगलूर 560 001 Bangalore
16-01-2015

सजामूल
KASHMIR MALLOW

HUMAN SPACE EXPLORATION

INTERNATIONAL SPACE CO-OPERATION



FDC of Apollo-Soyuz Space mission



Overprint of Soyuz launch

Apollo-Soyuz was the first crewed international space mission, carried out jointly by the United States and the Soviet Union in July 1975.

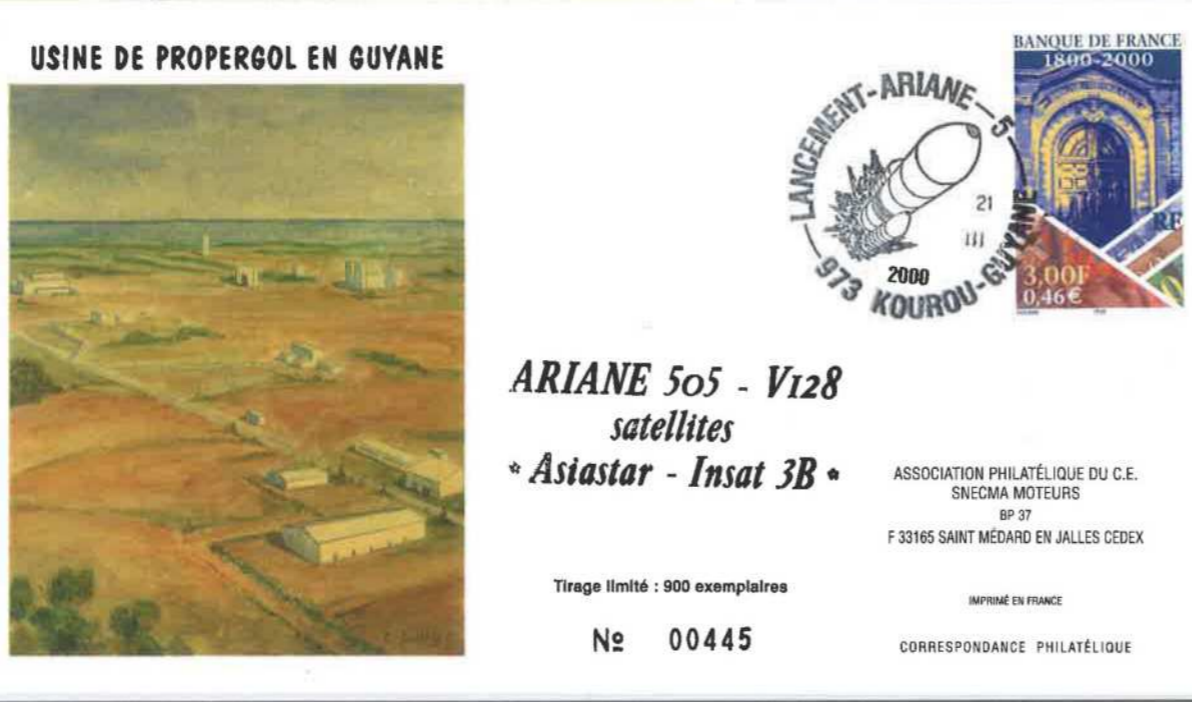


INSAT 3B satellite

Joint India USSR flight



India-USSR space co-operation Airmail (Above), India France Joint Issue Maxim card (France Cancellation)



ARIANE 505 - V128
satellites
* **Asiastar - Insat 3B** *

Tirage limité : 900 exemplaires

N° 00445

ASSOCIATION PHILATÉLIQUE DU C.E.
SNECMA MOTEURS
BP 37
F 33165 SAINT MÉDARD EN JALLES CEDEX

IMPRIMÉ EN FRANCE

CORRESPONDANCE PHILATÉLIQUE

INSAT3B satellite launch on Ariane Rocket (India-European Space Agency Joint Cooperation)

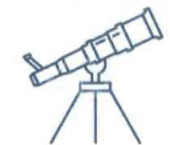
On April 2, 1984, **Indian Air Force pilot Rakesh Sharma** made history by becoming the first Indian to travel to space. He was part of the Soviet Union's Soyuz T-11 expedition, a joint mission of the Indian Space Research Organisation (ISRO) and the Soviet Intercosmos space programme. **Insat-3B** was launched on the 128th flight of European launch vehicle, Ariane of Arianespace, on 21 March 2000, from Kourou in French Guiana along with its co-passenger, a broadcast satellite, AsiaStar. ISRO and the Space Agency of France CNES have undertaken two joint missions. One was '**Megha Tropiques**' which was launched in the year 2011 and another one was '**Saral-Altika**' launched in 2013.

India-France Joint issue (Indian Stamps)





HUMAN SPACE EXPLORATION

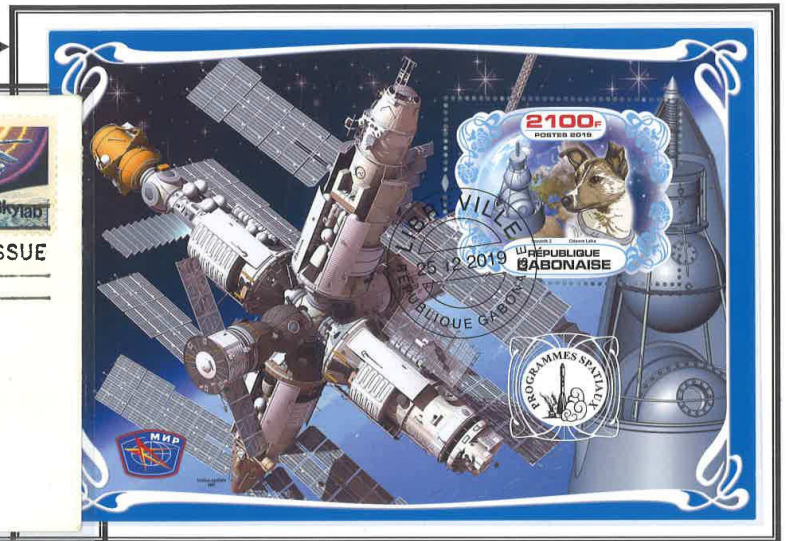


SPACE LABORATORIES



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MIR Space station, USSR
Souvenir sheet



Project Mercury – First Human spaceflight program of United States
Skylab - First United States Space Station



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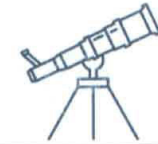


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Spacelab – Reusable laboratory built by European Space Agency



HUMAN SPACE EXPLORATION



SOCIETAL BENEFITS OF SPACE RESEARCH



VIKRAM SARABHAI
Father of Indian Space Program



INDIA IN SPACE
Se-tenant released in 2000 by India post

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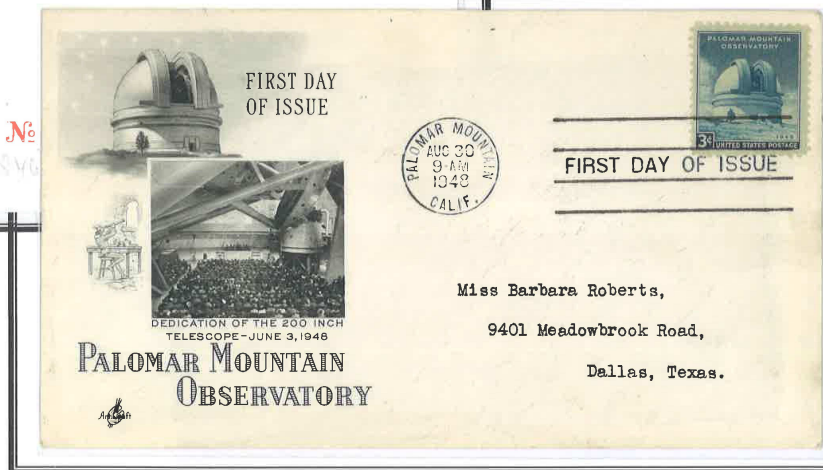
SPECIAL COVER FOR USAGE OF SPACE TECHNOLOGIES



SPECIAL COVER DEPICTING RADIO TELESCOPE



PROJECT RUKMINI
First military communication satellite



FIRST DAY COVER OF PALOMAR MOUNTAIN OBSERVATORY



METER CANCEL OF EARTH STATION ANTENNA
Transmitted cover from ISRO post office

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