ANANTHAPURI STAMP BULLETIN

VOL: II	NOVEMBER 2017	ISSUE 21

MONTHLY E- BULLETIN OF ANANTHAPURI PHILATELIC ASSOCIATION, THIRUVANANTHAPURAM. Reg No.T-614/12

We meet every first Sunday
At Hotel Poorna,
Statue,
Thiruvananthapuram
At 2.30 p.m.

"ANANTHAPURI STAMP BULLETIN" WON BRONZE MEDAL WITH 63 MARKS AT BRASILIA 2017 SPECIALIZED WORLD STAMP EXHIBITION HELD IN BRAZIL FROM 24TH TO 29TH OCTOBER, 2017.

INDIA-RUSSIA JOINT ISSUE

Stamps issued by Russia on 26th October 2017

Editorial

Dear Friends,

We are happy to announce that "Ananthapuri Stamp Bulletin" won a Bronze medal at Brasilia 2017, Specialised World Stamp Exhibition held in Brazil from 24th to 29th October, 2017. It is really an inspiration for us to work hard and improve. On this occasion, we would like to thank all our readers, well-wishers and supporters for encouraging us.

By this issue we are entering the second volume of our bulletin. I hope that the Bulletin continues to flourish and help to spread the fragrance of philately.

Mohanachandran Nair
Mobile: 09387801948

Contents

Reader's Column

Dear Sir,

Recently I had gone thru 15 issues of the bulletin. I am extremely happy to say that all the issues were not only interesting but extremely useful to all philatelic lovers. I only wish this Ananthapuri Stamp Bulletin many more success in the days to come.

V.Srinivasan, Kolkata.
www.svphila.com

Dear Sir

Thanks for giving excellent publicity in our Magazine about INPEX 2017 NATIONAL PHILATELIC EXHIBITION to be held on 30th November to 5th December 2017 at the world trade centre cuff pared Mumbai 400 005

My governing council is very much appreciated your work and help for publishing prospectus in our Magazine

This is really a good work for the promotion of philately.

Regards

For Philatelic Society of India
Surendra Kotadia
Treasurer

Dear Sir,

The philatelic magazine contains good articles useful for every philatelist. Articles on new issues make us aware about the stamps issued by different countries throughout the world. Great job. Keep it up !!!

Swarup Basu
swarupsbasu2285@gmail.com

Dear Sir,

I am in USA…I wish a happy and most cheerful Deepavali to all our readers....I am regularly following your bulletin. You are giving very useful philatelic news. Quite useful to upcoming stamp collectors.

K.C.Naidu
naidukc1949@gmail.com

Dear Mr Nair,

Good Day and Good Morning. Thank you v much for the pdf of the bulletin. I down loaded and read it rather went through it. Congratulations it is good just a small request. The article by Col. Dutta appreciated, may be you must include one or more topics of display. Could be thematic, postal stationery or otherwise to educate people.

Just photos of releases are not enough a bulletin should have more informative study material which I find lacking in almost all bulletins. Please cover postal stationery which is ignore everywhere and finding resource is so difficult.

After Mr. Heda there is no update on Meghdhoot cards being released. I just received 7 varieties from a friend collector along with the ones you have shown. I was told there is a total of 9 varieties of the temple collection only two has come out. Don't know how far it is true. It is difficult to do a collection due to correct information or resource material available.

With all good wishes and congratulations.

Regards

Vidya Kishore Baglodi
baglodimlr@hotmail.com

Your letter is much appreciated. We are trying to give maximum possible coverage on philately. But please note that the contributors of philatelic articles are very few in India. Through every issue we are inviting articles and materials related to philatelic activities in your locality. But only a few are responding. Meghdoot cards are issued in different parts of the country in different languages. Compiling Meghdoot cards have been a difficult task. Even India Post has no idea regarding the issues. As you have told temple collection of Meghdoot cards were issued in 9 varieties. We have received only two images, which were published in the last issue.

Editor

New Indian Issues

RAPID ACTION FORCE

Rs.5.00
Issued on 07.10.2017

NANAJI DESHMUKH

Rs.5.00
Issued on 11.10.2017

CHHATRAPATI SHIVAJI INTERNATIONAL AIRPORT

Rs.5.00 & 15.00
Miniature Sheet Rs.20.00
Issued on 15.10.2017

3 KUMAON (RIFLES)

Rs.5.00
Issued on 11.10.2017

INDIA – RUSSIA JOINT ISSUE

Rs.5.00 & 25.00
Miniature Sheet Rs.30.00
Issued on 26.10.2017

Brasilia 2017 – Winners from India

BRASÍLIA 2017
SPECIALIZED WORLD STAMP EXHIBITION

Brasilia 2017, Specialised World Stamp Exhibition was held from 24th to 29th October 2017 at Ulysses Guimaraes Convention Centre, Brazil. Mr.Ajaykumar Mittal was the National Commissioner from India. Following are the results of exhibits from India.

INDIA					
2D	24069 - 24076	Mittal, Ajay Kumar	India: Indore State Postal System	90	G
5A	51032 - 51036	Singh, Lallan P.	Hows and Whys of Birds (A Philatelic Contribution to a better Understanding of Birds)	80	V
5C	53058 - 53062	Patel, Ilyas Ahmed	The Story of Building Bridges - An Index of Human Civilization	75	LS
8B	82027 - 82029	Behera, Shubhrajyoti	Wonders of Nature - Conserve it or lose it	76	LS
8C	83025 - 83028	Sharma, Avinash	Olympic Games	80	V
9A	LB9124	Sharma, Dinesh Chandra	Philately as a Teaching tool	65	SB
9B	LM9209	Mohanachandran, Nair	Ananthapuri Stamp Bulletin	63	B

"The Postage stamp is a symbol of the Progress of mankind and symbol of service. And apart from the daily utility as a means of easy and cheap communication the greater service it has done is that it acts as a bond of unity and brotherhood between nations and people."

Jawaharlal Nehru

News in Brief

FREE SEMINARS AT INPEX 2017

A five day philatelic event has been organised by India Study Circle during INPEX-2017 at World Trade Centre, Mumbai. A total of 14 speakers will be sharing their study, knowledge and research. A short Question & Answer session will follow each session. The event is absolutely free and is open to all interested in attending.

Event Schedule:

Date	Time	Speaker	Subject Matter
Thursday, Nov. 30th	02:00 - 03:00 pm	Pratisad Neurgaonkar	British India Postal Stationery
Thursday, Nov. 30th	03:00 - 04:00 pm	Ajeet Singhee	Indian States Postal Stationery
Friday, Dec. 1st	01:30 - 02:30 pm	Sandeep Jaiswal	Indian Feudatory States
Friday, Dec. 1st	02:30 - 02:45 pm	Ramu Srinivasa	1854 1//2 anna Lithograph Issue
Friday, Dec. 1st	02:45 - 03:00 pm	Gowtham Rahotgi	1854 1 anna Lithograph Issue
Friday, Dec. 1st	03:00 - 03:15 pm	Markand Dave	1854 2 annas Typograph Issue
Friday, Dec. 1st	03:15 - 03:30 pm	Deepak Jaiswal	1854 4 anna Lithograph Issue
Saturday, Dec. 2nd	01:30 - 02:00 pm	Rajan Jayakar	British India Revenues & Fiscals
Saturday, Dec. 2nd	02:00 - 02:30 pm	Anil Suri	Cochin & Mysore Fiscals
Saturday, Dec. 2nd	02:30 - 03:00 pm	Jayanta Dutta	Indian States Fiscals
Saturday, Dec. 2nd	03:00 - 03:30 pm	Anjali Dutta	Indian States Fiscals
Sunday, Dec. 3rd	01:30 - 02:15 pm	Pradip Jain	1911 - 1922 Airmail
Sunday, Dec. 3rd	02:15 - 02:45 pm	Markand Dave	1929 Airmail
Sunday, Dec. 3rd	02:45 - 03:30 pm	Deepak Jaiswal	Essays, Proofs & Reprints of the 1st Issues of India
Monday, Dec. 4th	11:30 - 12:15 pm	Max Smith	British India Postal History
Monday, Dec. 4th	12:15 - 01:00 pm	Madhukar Jhingan	Research into Indian philately
Monday, Dec. 4th	01:00 - 01:15 pm	Ajay Mittal	*India Study Circle* in India
Monday, Dec. 4th	01:15 - 01:30 pm	Max Smith	*India Study Circle*

ONE DAY SEMINAR BY ROYAL PHILATELIC SOCIETY, LONDON

The Royal Philatelic Society, London has organised a one day philatelic seminar on 2nd December during INPEX-2017 at Hotel Taj President, Mumbai from 9.00 am to 5.00 pm. Five speakers will give lectures on the subjects – Traditional Philately, Postal History, Thematic Philately and Postal Stationery. The fee for the seminar is Rs.2000/- which includes lunch and tea. Only 100 seats are arranged for the seminar. Every participant will receive a free book (Original cost Rs.1300/-) titled "Indian Princely States Stamps and Postal History" by Sandeep Jaiswal & Steven Swillinger. For more information please contact email: indiarpsl@gmail.com

CENTRAL INDIA PHILATELIC SOCIETY

Monthly meeting of Central India Philatelic Society organised on 1st Oct. 2017 at Satna (M. P.) decided to organise a Philatelic & Numismatic Exhibition in the month of November 2017. Secretary Sudhir Jain displayed his collection of old Bazar Cards and US Quarter Dollar coins. Shri Ramesh Lajpatrai presided and Jt. Secretary Rajendea Agarwal Shashi gave the vote of thanks.

Members present were Kuldeepak Oberai, Umashankar Agarwal, Ashok Jain, Ravi Gupta, Jagdish Tiwari, Jinendra Jain, Surendra Gupta, Ashok Mohile, Sachin Tolwani, Anuj Agarwal, Vinay Gupta, S. P. Sharma, Pankaj Pratap Singh, Thakur Khilani, Manmohan Maheshwari, Tilakraj Soni, Pravin Khatri and Rakesh Sahu.

GROW YOUR OWN STAMPS

New Zealand post issued six hexagonal innovative stamps on 4th October, 2017 featuring the following herbs and vegetables: Basil $1, Carrots $1, Parsley $2.20, Chives $2.30, Broccoli $2.70 & Lettuce $3.30. Two versions of stamps were issued, one set with embedded seeds and other without seeds. The embedded seeds are at the bottom tip of the stamps with words “Plant Me” above them. The original intention was to have seeds embedded in all the stamps, but due to the importation laws of various countries it may not be possible to send seeds to all the countries and so the seedless version was also issued.

Stamps with seeds

Stamps without seeds

The stamps have been produced in sheets of 10 each and a souvenir sheet of the six stamps. For more details log in to https://stamps.nzpost.co.nz/

National Postal Week Celebrations

A mini marathon named “POSTathon 2017” was conducted by Kerala Postal Circle with the theme “RUN FOR INDIA POST” on World Post Day, 9th October, 2017 from Thiruvananthapuram Post Master General Office to General Post Office. To commemorate the event an Anchal Runner Carried Special cover was released.

Shri.Sayeed Rashid, Director of Postal Servies released the Special Cover received by Smt.Shobha Koshy, Chairperson KeSEPER at the inaugural function of POSTathon at PMG Offie Thiruvananthapuram

View of POSTathon under way and at the finishing point - GPO, Thiruvananthapuram

The Anchal Runner Carried Cover released at POSTathon with Runner’s Signature

Philatelic Day

Thiruvananthapuram

Philatelic day celebration and National letter writing award function was conducted at Postal Superintendent's Office, Thycaudu, Thiruvananthapuram on 12.10.2017. A mini philatelic exhibition was conducted in connection with this event. Mr. Sreejesh Krishnan our life member exhibited his collection on Mahatma Gandhi.

Madurai

Philatelic Bureau at Madurai Head Post Office conducted a mobile philatelic exhibition on 12.10.2017 in a van. The exhibits belonging to S/Shri. Shanmugalal, Kahder Hussain and Shanmugham were displayed inside the van. The van visited many important schools in Madurai. Shri.Kahder Hussain accompanied the van and explained it to students who visited the exhibition.

Mobile Exhibition at Madurai

The members of Madurai Philatelic and Numismatic Association celebrated the National Postal Week in Madurai Head Post Office by conducting philatelic quiz programme for school children and mini exhibition on philately.

Thoothukudi (Tuticorin)

A philatelic and numismatic exhibition was organised in connection with National Philately Day on 12.10.2017 at Tuticorin by Giants Group of Thoothukudi

Vellore

A philatelic exhibition was conducted at the Head Post Office, Vellore in connection with National Postal Week on 12th October 2017 to promote awareness on philately in school children. Students from nearby schools visited the exhibition.

Bengaluru

A philatelic talk was conducted on philately day ie.12.10.2017 at S G International School, 11th Cross, Saraswathipuram, Nandini Layout, Bengaluru. National award winner and senior philatelist Sri.Jaiprakash Sarda gave a talk on philately.

A philatelic exhibition was also conducted at the same venue on 14.10.2017.

Karnataka Philatelic Society conducted a philatelic workshop at nearby schools at Bengaluru in connection with Philately Day. Mr.Naveen, General Secretary of KPS conducted the workshop.

Hyderabad

Telangana Circle of India Post arranged a get-together for all philatelists at 4 pm on 12.10.2017 in General Post Office Hyderabad in connection with Philately Day. A special cover sponsored by Shri. Sagi Srinivas Raju has also released to celebrate the event.

The cover and cancellation were designed by Shri. Boben J.E., Governing Council member of Ananthapuri Philatelic Association, Thiruvananthapuram.

Pune

A philatelic workshop was conducted by Dr. Anjali Dutta and Dr. Jayanta Dutta at Shivajinagar Head Post Office on 12th October, 2017.

Mumbai

Lucknow

Philatelic Bureau at Lucknow GPO conducted a philatelic exhibition and talk on philately in connection with Philatelic Day.

Gorakhpur (Uttar Pradesh)

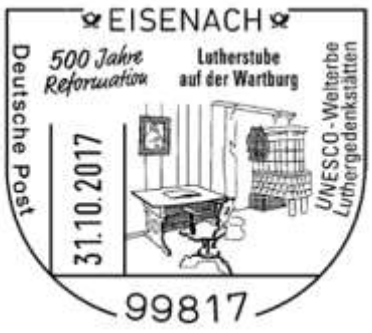
Courtesy: Sreejesh Krishnan, Thiruvananthapuram,
C.Madhavan, Madurai
Jeevan Jyothi, Rainbow Stamp Club

New Pictorial Cancellations

KOREA

A : Namsadang(UNESCO Memory of the World)
B : Buddhist Monk, Ilyeon
C : the Memorial Stone of Silla
D : the Garlic of Uiseong
E : One Pillar Gate of Namjang Temple
F : Five Storied Stone Pagoda of Tamniri, Uiseong
G : Chuncheon Post Office

GERMANY



Courtesy: **Wolfgang Beyer**
Germany

Cassini–Huygens

RIP

September 15, 2017

By Ilyas Patel

Saturn, infamously known as “Satan” or the most disastrous planet in the field of astrology having any ill effect in any human’s life can only be known by the almighty God but, Cassini-Huygens launched in 1997 arrived in orbit around Saturn in 2004 to study the solar system’s most beautiful planet, its rings, moons and atmosphere. It studied Saturn for 13 consecutive years and opened up a huge scope of study for scientists by providing bulk of material and photographs to study before plunged into its death dive on September 15. NASA’s Cassini spacecraft entered the final stages of its remarkable exploration of Saturn on April 23 with series of 22 dives between plane and the inner edge of its rings. The probe burnt in the atmosphere of Saturn bringing an end to the 20-year mission.

Our Solar System

The Cassini–Huygens mission, commonly called Cassini, was a collaboration between NASA, the European Space Agency (ESA), and the Italian Space Agency (ASI) to send a probe to study the planet Saturn and its system, including its rings and natural satellites. The Flagship-class unmanned robotic spacecraft comprised of both NASA's *Cassini* probe, and ESA's *Huygens* lander which would be landed on Saturn's largest moon, Titan. Cassini was the fourth space probe to visit Saturn and the first to enter its orbit. The craft were named after astronomers Giovanni Cassini and Christiaan Huygens.

Launched aboard a Titan IVB/Centaur on October 15, 1997, Cassini was active in space for more than 19 years, with 13 years spent orbiting Saturn, studying the planet and its system after entering orbit on July 1, 2004. The voyage to Saturn included flybys of Venus (April 1998 and July 1999), Earth (August 1999), the asteroid 2685 Masursky, and Jupiter (December 2000). Its mission ended on September 15, 2017, when Cassini was commanded to fly into Saturn's upper atmosphere and burn up in order to prevent any risk of contaminating Saturn's moons, which might have offered habitable environments to stowaway terrestrial microbes on the spacecraft. (At that point *Cassini* lacked sufficient impulse to leave the Saturn system, so it could only be left in orbit, where it might collide with a moon, or be destroyed.) The mission is widely perceived to have been successful beyond expectation. *Cassini-Huygens* has been described by NASA's Planetary Science Division Director as a "mission of firsts", that has revolutionized human understanding of the Saturn system, including its moons and rings, and our understanding of where life might be found in the Solar System.

Cassini's original mission was planned to last for four years, from June 2004 to May 2008. The mission was extended for another two years until September 2010, branded the *Cassini Equinox Mission*. The mission was extended a second and final time with the *Cassini Solstice Mission*, lasting another seven years until September 15, 2017, on which date *Cassini* was de-orbited to burn up in Saturn's upper atmosphere.

The *Huygens* module traveled with *Cassini* until its separation from the probe on December 25, 2004; it was successfully landed by parachute on Titan on January 14, 2005. It successfully returned data to Earth for around 90 minutes, using the orbiter as a relay. This was the first landing ever accomplished in the outer Solar System and the first landing on a moon other than our own. *Cassini* continued to study the Saturn system in the following years.

At the end of its mission, the *Cassini* spacecraft executed the "Grand Finale" of its mission: a number of risky passes through the gaps between Saturn and Saturn's inner rings. The purpose of this phase was to maximize *Cassini*'s scientific outcome before the spacecraft was destroyed. The atmospheric entry of *Cassini* effectively ended the mission.

Overview

Teams from 28 countries made up the joint team responsible for designing, building, flying and collecting data from the *Cassini* orbiter and *Huygens* probe. The mission was managed by NASA's Jet Propulsion Laboratory in the United States, where the orbiter was assembled. *Huygens* was developed by the European Space Research and Technology Centre. The Centre's prime contractor, Aérospatiale of France (now Thales Alenia Space), assembled the probe with equipment and instruments supplied by many European countries (*Huygens*' batteries and two scientific instruments by the United States). The Italian Space Agency (ASI) provided the *Cassini* orbiter's high-gain radio antenna, with the incorporation of a low-gain antenna (to ensure telecommunications with the Earth for the entire duration of the mission), a compact and lightweight radar, which also uses the high-gain antenna and serves as a synthetic-aperture radar, a radar altimeter, a radiometer, the radio science subsystem (RSS), the visible channel portion VIMS-V of VIMS spectrometer. The VIMS infrared counterpart was provided by NASA, as well as Main Electronic Assembly, which includes electronic subassemblies provided by CNES of France.

On April 16, 2008, NASA announced a two-year extension of the funding for ground operations of this mission, at which point it was renamed the Cassini Equinox Mission. The round of funding was again extended in February 2010 with the Cassini Solstice Mission.

Naming

The mission consisted of two main elements: the ASI/NASA *Cassini* orbiter, named for the Italian astronomer Giovanni Domenico Cassini, discoverer of Saturn's ring divisions and four of its satellites; and the ESA-developed *Huygens* probe, named for the Dutch astronomer, mathematician and physicist Christiaan Huygens, discoverer of Titan.

Giovanni Domenico Cassini (1625–1712) was an Italian (naturalised French) mathematician, astronomer, astrologer and engineer. Cassini was born in Perinaldo, near Imperia, at that time in the County of Nice, part of the Savoyard state. Cassini is known for his work in the fields of astronomy and engineering. Cassini discovered four satellites of the planet Saturn and noted the division of the rings of Saturn; the Cassini Division was named after him. Giovanni Domenico Cassini was also the first of his family to begin work on the project of creating a topographic map of France. The Cassini space probe, launched in 1997, was named after him and became the fourth to visit Saturn and the first to orbit the planet.

Christiaan Huygens, FRS (1629 –1695) was a prominent Dutch mathematician and scientist. He is known particularly as an astronomer, physicist, probabilist and horologist. Huygens was a leading scientist of his time. His work included early telescopic studies of the rings of Saturn and the discovery of its moon Titan, the invention of the pendulum clock and other investigations in timekeeping. He published major studies of mechanics and optics (having been one of the most influential proponents of the wave theory of light), and pioneered work on games of chance.

The mission was commonly called Saturn Orbiter Titan Probe (SOTP) during gestation, both as a Mariner Mark II mission and generically. *Cassini-Huygens* was a Flagship-class mission to the outer planets. The other planetary flagships include *Galileo*, Voyager, and Viking.

Objectives

Cassini had several objectives, including:

- Determining the three-dimensional structure and dynamic behavior of the rings of Saturn.
- Determining the composition of the satellite surfaces and the geological history of each object.
- Determining the nature and origin of the dark material on Iapetus's leading hemisphere.
- Measuring the three-dimensional structure and dynamic behavior of the magnetosphere.
- Studying the dynamic behavior of Saturn's atmosphere at cloud level.
- Studying the time variability of Titan's clouds and hazes.
- Characterizing Titan's surface on a regional scale.

Cassini–Huygens was launched on October 15, 1997, from Cape Canaveral Air Force Station's Space Launch Complex 40 using a U.S. Air Force Titan IVB/Centaur rocket. The complete launcher was made up of a two-stage Titan IV booster rocket, two strap-on solid rocket motors, the Centaur upper stage, and a payload enclosure, or fairing.

The total cost of this scientific exploration mission was about US$3.26 billion, including $1.4 billion for pre-launch development, $704 million for mission operations, $54 million for tracking and $422 million for the launch vehicle. The United States contributed $2.6 billion (80%), the ESA $500 million (15%), and the ASI $160 million (5%). They do not include inflation over the course of a very long mission, nor do they include the cost of the extended missions.

The primary mission for *Cassini* was completed on July 30, 2008. The mission was extended to June 2010 (*Cassini* Equinox Mission). This studied the Saturn system in detail during the planet's equinox, which happened in August 2009.

On February 3, 2010, NASA announced another extension for *Cassini*, lasting 6 ½ years until 2017, ending at the time of summer solstice in Saturn's northern hemisphere (*Cassini* Solstice Mission). The extension enabled another 155 revolutions around the planet, 54 flybys of Titan and 11 flybys of Enceladus. In 2017, an encounter with Titan changed its orbit in such a way that, at closest approach to Saturn, it was only 3,000 km above the planet's cloud tops, below the inner edge of the D ring. This sequence of "proximal orbits" ended when its final encounter with Titan sent the probe into Saturn's atmosphere to be destroyed.

History

Cassini–Huygens's origins date to 1982, when the European Science Foundation and the American National Academy of Sciences formed a working group to investigate future cooperative missions. Two European scientists suggested a paired Saturn Orbiter and Titan Probe as a possible joint mission. In 1983, NASA's Solar System Exploration Committee recommended the same Orbiter and Probe pair as a core NASA project. NASA and the European Space Agency (ESA) performed a joint study of the potential mission from 1984 to 1985. ESA continued with its own study in 1986, while the American astronaut Sally Ride, in her influential 1987 report *NASA Leadership and America's Future in Space*, also examined and approved of the *Cassini* mission.

While Ride's report described the Saturn orbiter and probe as a NASA solo mission, in 1988 the Associate Administrator for Space Science and Applications of NASA, Len Fisk, returned to the idea of a joint NASA and ESA mission. He wrote to his counterpart at ESA, Roger Bonnet, strongly suggesting that ESA choose the *Cassini* mission from the three candidates at hand and promising that NASA would commit to the mission as soon as ESA did. Late in 1988, ESA chose Cassini–Huygens as its next major mission and the following year the program received major funding in the US. The project proceeded politically smoothly after 1994, although citizens' groups concerned about its potential environmental impact attempted to derail it through protests and lawsuits until and past its 1997 launch.

Spacecraft design

The spacecraft was planned to be the second three-axis stabilized, RTG-powered Mariner Mark II, a class of spacecraft developed for missions beyond the orbit of Mars. *Cassini* was developed simultaneously with the *Comet Rendezvous Asteroid Flyby* (*CRAF*) spacecraft, but budget cuts and project rescoring forced NASA to terminate CRAF development to save *Cassini*. As a result, *Cassini* became more specialized. The Mariner Mark II series was cancelled.

Including the orbiter and probe, it has been the second-largest unmanned interplanetary spacecraft built, as well as being among the most complex. The orbiter had a mass of 2,150 kg, the probe 350 kg. With the launch vehicle adapter and 3,132 kg of propellants at launch, the spacecraft had a mass of 5,600 kg. Only the two Photos 1 and 2 spacecraft sent to Mars by the Soviet Union were larger.

The *Cassini* spacecraft was 6.8 meters high and 4 meters wide. Spacecraft complexity was increased by its trajectory (flight path) to Saturn, and by the ambitious science at its destination. *Cassini* had 1,630 interconnected electronic components, 22,000 wire connections, and 14 kilometers of cabling. The core control computer CPU was a redundant MIL-STD-1750A system. The main propulsion system consisted of one prime and one backup R-4D bipropellant rocket engine. The thrust of each engine was 490 newtons and the total spacecraft delta-v was about 2,040 meters per second. Smaller monopropellant rockets provided attitude control. *Cassini* was powered by 32.7 kg of plutonium-238—the heat from the material's radioactive decay was turned into electricity. *Huygens* was supported by *Cassini* during cruise, but used chemical batteries when independent.

Until September 2017 the *Cassini* probe continued orbiting Saturn at a distance of between 8.2 and 10.2 astronomical units from the Earth. It took 68 to 84 minutes for radio signals to travel from Earth to the spacecraft, and vice versa. Thus ground controllers could not give "real-time" instructions for daily operations or for unexpected events. Even if response were immediate, more than two hours would have passed between the occurrence of a problem and the reception of the engineers' response by the satellite.

Summary of Instruments:

- Optical Remote Sensing ("Located on the remote sensing pallet")
  - Composite Infrared Spectrometer (CIRS)
  - Imaging Science Subsystem (ISS)
  - Ultraviolet Imaging Spectrograph (UVIS)
  - Visible and Infrared Mapping Spectrometer (VIMS)
- Fields, Particles and Waves
  - Cassini Plasma Spectrometer (CAPS)
  - Cosmic Dust Analyzer (CDA)
  - Ion and Neutral Mass Spectrometer (INMS)
  - Magnetometer (MAG)
  - Magnetospheric Imaging Instrument (MIMI)
  - Radio and Plasma Wave Science (RPWS)
- Microwave Remote Sensing
  - Radar
  - Radio Science (RSS)

Plutonium power source

Because of Saturn's distance from the Sun, solar arrays were not feasible as power sources for this space probe. To generate enough power, such arrays would have been too large and too heavy. Instead, the *Cassini* orbiter was powered by three radioisotope thermoelectric generators (RTGs), which use heat from the natural decay of about 33 kg of plutonium-238 (in the form of plutonium dioxide) to generate direct current electricity via thermoelectric. The RTGs on the *Cassini* mission have the same design as those used on the *New Horizons*, *Galileo*, and *Ulysses* space probes, and they were designed to have very long operational lifetimes. At the end of the nominal 11-year *Cassini* mission, they were still able to produce 600 to 700 watts of electrical power.

Telemetry

The *Cassini* spacecraft was capable of transmitting in several different telemetry formats. The telemetry subsystem is perhaps the most important subsystem, because without it there could be no data return. There were around 1088 channels (in 67 mini-packets) assembled in the *Cassini* Telemetry Dictionary. Out of these 67 lower complexity mini-packets, 6 mini-packets contained the subsystem covariance and Kalman gain elements (161 measurements), not used during normal mission operations. This left 947 measurements in 61 mini-packets. A total of seven telemetry maps corresponding to 7 AACS telemetry modes were constructed. These modes are: (1) Record; (2) Nominal Cruise; (3) Medium Slow Cruise; (4) Slow Cruise; (5) Orbital Ops; (6) Av; (7) ATE (Attitude Estimator) Calibration. These 7 maps cover all spacecraft telemetry modes.

Huygens probe

The *Huygens* probe supplied by the European Space Agency (ESA) and named after the 17th century Dutch astronomer who first discovered Titan, Christiaan Huygens, scrutinized the clouds, atmosphere, and surface of Saturn's moon Titan in its descent on January 15, 2005. It was designed to enter and brake in Titan's atmosphere and parachute a fully instrumented robotic laboratory down to the surface.

The probe system consisted of the probe itself which descended to Titan, and the probe support equipment (PSE) which remained attached to the orbiting spacecraft. The PSE includes electronics that track the probe, recover the data gathered during its descent, and process and deliver the data to the orbiter that transmits it to Earth. The core control computer CPU was a redundant MIL-STD-1750Acontrol system.

The data were transmitted by a radio link between *Huygens* and *Cassini* provided by Probe Data Relay Subsystem (PDRS). As the probe's mission could not be tele commanded from Earth because of the great distance, it was automatically managed by the Command Data Management Subsystem (CDMS). The PDRS and CDMS were provided by the Italian Space Agency (ASI).

Selected events and discoveries

Venus and Earth flybys and the cruise to Jupiter

The *Cassini* space probe performed two gravitational-assist flybys of Venus on April 26, 1998, and June 24, 1999. These flybys provided the space probe with enough momentum to travel all the way out to the asteroid belt. At that point, the Sun's gravity pulled the space probe back into the inner Solar System.

On August 18, 1999, at 03:28 UTC, the craft made a gravitational-assist flyby of the Earth. One hour and 20 minutes before closest approach, *Cassini* made its closest approach to the Earth's Moon at 377,000 kilometers, and it took a series of calibration photos.

On January 23, 2000, *Cassini* performed a flyby of the asteroid 2685 Masursky at around 10:00 UTC. It took photos in the period five to seven hours before the flyby at a distance of 1.6 million kilometers, and a diameter of 15 to 20 km was estimated for the asteroid.

Jupiter flyby

Cassini made its closest approach to Jupiter on December 30, 2000, and made many scientific measurements. About 26,000 images of Jupiter, its faint rings, and its moons were taken during the six month flyby. It produced the most detailed global color portrait of the planet yet, in which the smallest visible features are approximately 60 km across.

A major finding of the flyby, announced on March 6, 2003, was of Jupiter's atmospheric circulation. Dark "belts" alternate with light "zones" in the atmosphere, and scientists had long considered the zones, with their pale clouds, to be areas of upwelling air, partly because many clouds on Earth form where air is rising. But analysis of *Cassini* imagery showed that individual storm cells of upwelling bright-white clouds, too small to see from Earth, pop up almost without exception in the dark belts. According to Anthony Del Genio of NASA's Goddard Institute for Space Studies, "the belts must be the areas of net-rising atmospheric motion on Jupiter, [so] the net motion in the zones has to be sinking."

Tests of general relativity

On October 10, 2003, the mission's science team announced the results of tests of Albert Einstein's general theory of relativity, performed by using radio waves transmitted from the *Cassini* space probe. The radio scientists measured a frequency shift in the radio waves to and from the spacecraft, as those passed close to the Sun. According to the general theory of relativity, a massive object like the Sun causes space-time to curve, causing a beam of radio waves (or light, or any form of electromagnetic radiation) that passes by the Sun to travel farther (known as the Shapiro time delay).

Albert Einstein

Although some measurable deviations from the values calculated using the general theory of relativity are predicted by some unusual cosmological models, no such deviations were found by this experiment. Previous tests using radio waves transmitted by the *Viking* and *Voyager* space probes were in agreement with the calculated values from general relativity to within an accuracy of one part in one thousand. The more refined measurements from the *Cassini* space probe experiment improved this accuracy to about one part in 51,000.The data firmly support Einstein's general theory of relativity.

New moons of Saturn

In total, the *Cassini* mission discovered seven new moons orbiting Saturn. Using images taken by *Cassini*, researchers discovered Methone, Pallene and Polydeuces in 2004, although later analysis revealed that Voyager 2 had photographed Pallene in its 1981 flyby of the ringed planet.

On May 1, 2005, a new moon was discovered by *Cassini* in the Keeler gap. It was given the designation S/2005 S 1 before being named Daphnis. A fifth new moon was discovered by *Cassini*on May 30, 2007, and was provisionally labeled S/2007 S 4. It is now known as Anthe. A press release on February 3, 2009 showed a sixth new moon found by *Cassini*. The moon is approximately 1/3 of a mile (500 m) in diameter within the G-ring of the ring system of Saturn, and is now named Aegaeon (formerly S/2008 S 1). A press release on November 2, 2009 mentions the seventh new moon found by *Cassini* on July 26, 2009. It is presently labeled S/2009 S 1 and is approximately 300 m (1000 ft) in diameter in the B-ring system.

On April 14, 2014, NASA scientists reported the possible beginning of a new moon in the A Ring of the planet Saturn.

Phoebe flyby

On June 11, 2004, *Cassini* flew by the moon Phoebe. This was the first opportunity for close-up studies of this moon (Voyager 2 performed a distant flyby in 1981 but returned no detailed images). It also was *Cassini's* only possible flyby for Phoebe due to the mechanics of the available orbits around Saturn.

The first close-up images were received on June 12, 2004, and mission scientists immediately realized that the surface of Phoebe looks different from asteroids visited by spacecraft. Parts of the heavily cratered surface look very bright in those pictures, and it is currently believed that a large amount of water ice exists under its immediate surface.

Saturn rotation

In an announcement on June 28, 2004, *Cassini* program scientists described the measurement of the rotational period of Saturn. Because there are no fixed features on the surface that can be used to obtain this period, the repetition of radio emissions was used. This new data agreed with the latest values measured from Earth, and constituted a puzzle to the scientists. It turns out that the radio rotational period had changed since it was first measured in 1980 by *Voyager 1*, and it was now 6 minutes longer. This, however, does not indicate a change in the overall spin of the planet, but is thought to be due to movement of the source of the radio emissions to a different latitude, at which the rotation rate is different.

Orbiting Saturn

On July 1, 2004, the spacecraft flew through the gap between the F and G rings and achieved orbit, after a seven-year voyage. It was the first spacecraft to ever orbit Saturn.

The Saturn Orbital Insertion (SOI) maneuver performed by *Cassini* was complex, requiring the craft to orient its High-Gain Antenna away from Earth and along its flight path, to shield its instruments from particles in Saturn's rings. Once the craft crossed the ring plane, it had to rotate again to point its engine along its flight path, and then the engine fired to decelerate the craft by 622 meters per second to allow Saturn to capture it. *Cassini* was captured by Saturn's gravity at around 8:54 pm Pacific Daylight Time on June 30, 2004. During the maneuver *Cassini* passed within 20,000 km of Saturn's cloud tops.

When Cassini was in Saturnian orbit, departure from the Saturn system was evaluated in 2008 during end of mission planning.

Titan flybys

Cassini had its first flyby of Saturn's largest moon, Titan, on July 2, 2004, a day after orbit insertion, when it approached to within 339,000 km of Titan. Images taken through special filters (able to see through the moon's global haze) showed south polar clouds thought to be composed of methane and surface features with widely differing brightness. On October 27, 2004, the spacecraft executed the first of the 45 planned close flybys of Titan when it passed a mere 1,200 kilometers above the moon. Almost four gigabits of data were collected and transmitted to Earth, including the first radar images of the moon's haze-enshrouded surface. It revealed the surface of Titan (at least the area covered by radar) to be relatively level, with topography reaching no more than about 50 meters in altitude. The flyby provided a remarkable increase in imaging resolution over previous coverage. Images with up to 100 times better resolution were taken and are typical of resolutions planned for subsequent Titan flybys. Cassini collected pictures of Titan and the lakes of methane were similar to the lakes of Earth.

Huygens lands on Titan

Cassini released the *Huygens* probe on December 25, 2004, by means of a spring and spiral rails intended to rotate the probe for greater stability. It entered the atmosphere of Titan on January 14, 2005, and after a two-and-a-half-hour descent landed on solid ground. Although *Cassini* successfully relayed 350 of the pictures that it received from *Huygens* of its descent and landing site, a software error failed to turn on one of the *Cassini* receivers and caused the loss of another 350 pictures. While landing, for caution, NASA loaded Huygens with 3 parachutes.

Enceladus flybys

During the first two close flybys of the moon Enceladus in 2005, *Cassini* discovered a deflection in the local magnetic field that is characteristic for the existence of a thin but significant atmosphere. Other measurements obtained at that time point to ionized water vapor as its main constituent. *Cassini* also observed water ice geysers erupting from the south pole of Enceladus, which gives more credibility to the idea that Enceladus is supplying the particles of Saturn's E ring. Mission scientists began to suspect that there may be pockets of liquid water near the surface of the moon that fuel the eruptions.

On March 12, 2008, *Cassini* made a close fly-by of Enceladus, passing within 50 km of the moon's surface. The spacecraft passed through the plumes extending from its southern geysers, detecting water, carbon dioxide and various hydrocarbons with its mass spectrometer, while also mapping surface features that are at much higher temperature than their surroundings with the infrared spectrometer *Cassini* was unable to collect data with its cosmic dust analyzer due to an unknown software malfunction.

On November 21, 2009, *Cassini* made its eighth flyby of Enceladus, this time with a different geometry, approaching within 1,600 kilometers of the surface. The Composite Infrared Spectrograph (CIRS) instrument produced a map of thermal emissions from the Baghdad Sulcus 'tiger stripe'. The data returned helped create a detailed and high resolution mosaic image of the southern part of the moon's Saturn-facing hemisphere.

On April 3, 2014, nearly ten years after *Cassini* entered Saturn's orbit, NASA reported evidence of a large salty internal ocean of liquid water in Enceladus. The presence of an internal salty ocean in contact with the moon's rocky core, places Enceladus "among the most likely places in the Solar System to host alien microbial life". On June 30, 2014, NASA celebrated ten years of *Cassini* exploring Saturn and its moons, highlighting the discovery of water activity on Enceladus among other findings.

In September 2015, NASA announced that gravitational and imaging data from *Cassini* were used to analyze the liberations of Enceladus' orbit and determined that the moon's surface is not rigidly joined to its core, concluding that the underground ocean must therefore be global in extent.[77]

On October 28, 2015, *Cassini* performed a close flyby of Enceladus, coming within 49 km of the surface, and passing through the icy plume above the South Pole.

Radio occultation of Saturn's rings

In May 2005, *Cassini* began a series of radio occultation experiments, to measure the size-distribution of particles in Saturn's rings, and measure the atmosphere of Saturn itself. For over four months, the craft completed orbits designed for this purpose. During these experiments, it flew behind the ring plane of Saturn, as seen from Earth, and transmitted radio waves through the particles. The radio signals received on Earth were analyzed, for frequency, phase, and power shift of the signal to determine the structure of the rings.

Upper image: visible color mosaic of Saturn's rings taken on December 12, 2004. Lower image: simulated view constructed from a radio occultation observation on May 3, 2005. Color in the lower image represents ring particle sizes.

Spokes in rings verified

In images captured September 5, 2005, *Cassini* detected spokes in Saturn's rings, previously seen only by the visual observer Stephen James O'Meara in 1977 and then confirmed by the Voyager space probes in the early 1980s.

Lakes of Titan

Radar images obtained on July 21, 2006 appear to show lakes of liquid hydrocarbon(such as methane and ethane) in Titan's northern latitudes. This is the first discovery of currently existing lakes anywhere besides on Earth. The lakes range in size from one to one-hundred kilometers across.

On March 13, 2007, the Jet Propulsion Laboratory announced that it had found strong evidence of seas of methane and ethane in the northern hemisphere of Titan. At least one of these is larger than any of the Great Lakes in North America.

Saturn hurricane

In November 2006, scientists discovered a storm at the south pole of Saturn with a distinct eye wall. This is characteristic of a hurricane on Earth and had never been seen on another planet before. Unlike a terrestrial hurricane, the storm appears to be stationary at the pole. The storm is 8,000 kilometers across, and 70 kilometers high, with winds blowing at 560 kilometers per hour.

Iapetus flyby

On September 10, 2007, *Cassini* completed its flyby of the strange, two-toned, walnut-shaped moon, Iapetus. Images were taken from 1,600 km above the surface. As it was sending the images back to Earth, it was hit by a cosmic ray that forced it to temporarily enter safe mode. All of the data from the flyby were recovered.

Mission extension

On April 15, 2008, *Cassini* received funding for a 27-month extended mission. It consisted of 60 more orbits of Saturn, with 21 more close Titan flybys, seven of Enceladus, six of Mimas, eight of Tethys, and one targeted flyby each of Dione, Rhea, and Helene. The extended mission began on July 1, 2008, and was renamed the **Cassini Equinox Mission** as the mission coincided with Saturn's equinox.

Second mission extension

A proposal was submitted to NASA for a second mission extension (September 2010 – May 2017), provisionally named the extended-extended mission or XXM. This was approved in February 2010 and renamed the **Cassini Solstice Mission**. It included *Cassini* orbiting Saturn 155 more times, conducting 54 additional flybys of Titan and 11 more of Enceladus.

Great Storm of 2010 and aftermath

On October 25, 2012, *Cassini* witnessed the aftermath of the massive Great White Spot storm that recurs roughly every 30 years on Saturn. Data from the composite infrared spectrometer (CIRS) instrument indicated a powerful discharge from the storm that caused a temperature spike in the stratosphere of Saturn 83 K (83 °C; 149 °F) above normal. Simultaneously, a huge increase in ethylene gas was detected by NASA researchers at Goddard Research Center in Greenbelt, Maryland. Ethylene is a colorless gas that is highly uncommon on Saturn and is produced both naturally and through man-made sources on Earth. The storm that produced this discharge was first observed by the spacecraft on December 5, 2010 in Saturn's northern hemisphere. The storm is the first of its kind to be observed by a spacecraft in orbit around Saturn as well as the first to be observed at thermal infrared wavelengths, allowing scientists to observe the temperature of Saturn's atmosphere and track phenomena that are invisible to the naked eye. The spike of ethylene gas that was produced by the storm reached levels that were 100 times more than those thought possible for Saturn. Scientists have also determined that the storm witnessed was the largest, hottest stratospheric vortex ever detected in the Solar System, initially being larger than Jupiter's Great Red Spot.

Venus transit

On December 21, 2012, *Cassini* observed a transit of Venus across the Sun. The VIMS instrument analyzed sunlight passing though the Venusian atmosphere. VIMS previously observed the transit of exoplanet HD 189733 b.

The Day the Earth Smiled

On July 19, 2013, the probe was pointed towards Earth to capture an image of the Earth and the Moon, as part of a natural light, multi-image portrait of the entire Saturn system. The event was unique as it was the first time NASA informed the public that a long-distance photo was being taken in advance. The imaging team said they wanted people to smile and wave to the skies, with *Cassini* scientist, Carolyn Porco, describing the moment as a chance to "celebrate life on the Pale Blue Dot".

Rhea flyby

On February 10, 2015, the *Cassini* spacecraft visited Rhea more closely, coming within 47,000 km. The spacecraft observed the moon with its cameras producing some of the highest resolution color images yet of Rhea.

Hyperion flyby

Cassini performed its latest flyby of Saturn's moon Hyperion on May 31, 2015, at a distance of about 34,000 km.

Dione flyby

Cassini performed its last flyby of Saturn's moon Dione on August 17, 2015, at a distance of about 475 km (295 mi). A previous flyby was performed on June 16.

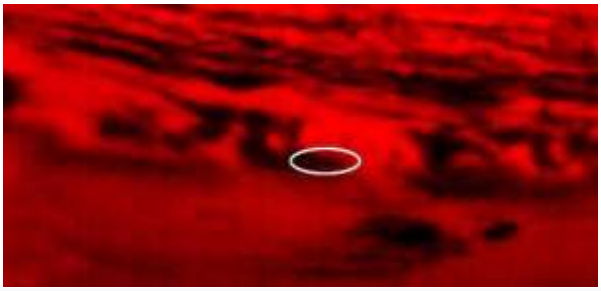
Hexagon changes color

Between 2012 and 2016, the hexagon changed from a mostly blue color to more of a golden color. One theory for this is that sunlight is creating haze as the pole is exposed to sunlight due to the change in season. It was previously noted that there was less blue color overall on Saturn between 2004 and 2008.

Grand Finale and destruction

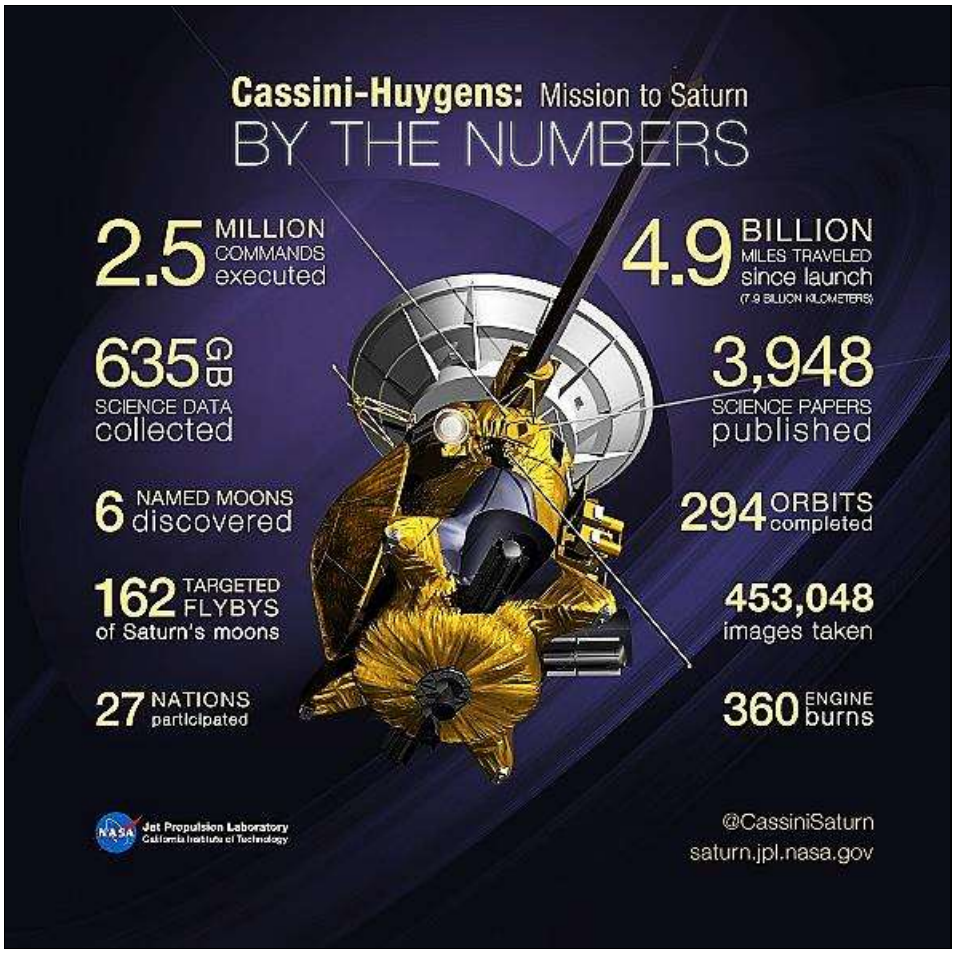
Cassini's end involved a series of close Saturn passes, approaching within the rings, then an entry into Saturn's atmosphere on September 15, 2017, to destroy the spacecraft. This method was chosen because it is imperative to ensure protection and prevent biological contamination to any of the moons of Saturn thought to offer potential habitability.

On November 29, 2016, the spacecraft performed a Titan flyby that took it to the gateway of F-ring orbits: This was the start of the Grand Finale phase culminating in its impact with the planet. A final Titan flyby on April 22, 2017, changed the orbit again to fly through the gap between Saturn and its inner ring days later on April 26. *Cassini* passed about 3,100 km above Saturn's cloud layer and 320 km from the visible edge of the inner ring; it successfully took images of Saturn's atmosphere and began returning data the next day. Signal was lost at 7:55:46 AM EDT on September 15, 2017.



***Cassini* impact site on Saturn**
(visual/IR mapping spectrometer; September 15, 2017)

Mission's Fact File



The spacecraft operation was organized around a series of missions. Each is structured according to a certain amount of funding, goals, etc. At least 260 scientists from 17 countries have worked on the *Cassini–Huygens* mission; in addition thousands of people overall worked to design, manufacture, and launch the mission.

- Prime Mission, July 2004 through June 2008.
- *Cassini* Equinox Mission was a two-year mission extension which ran from July 2008 through September 2010.
- *Cassini* Solstice Mission ran from October 2010 through April 2017. (Also known as the XXM mission.)
- Grand Finale (spacecraft directed into Saturn), April 2017 to September 15, 2017.

Saturn by *Cassini*, 2016

7 things Cassini taught us about Saturn

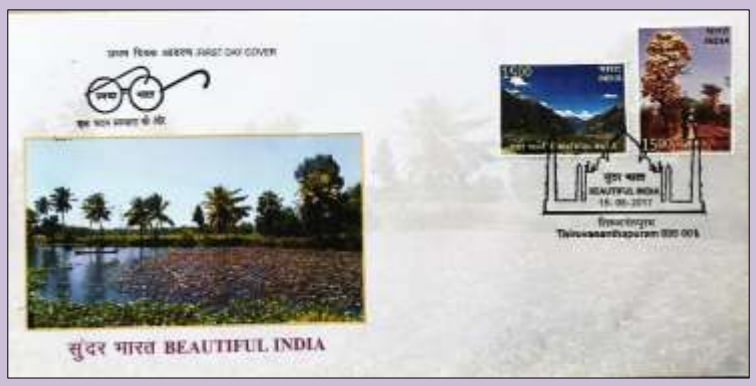
- Life could exist on the moon Enceladus – Cassini revealed a global ocean of salty liquid water beneath its icy surface. Some of this even shoots out into space, creating an immense plume. A promising lead in the search for worlds where life could exists.
- Six new Moons discovered – Saturn has over 60 moons, 6 of which Cassini discovered. Some of Saturn's moons resemble potatoes, another has colourful streaks. The moons vary in size, colour, texture, composition – each Saturn moon is, in a way, its own character.
- Seven year seasons – Each season on Saturn lasts about seven earth years. Cassini entered the orbit in winter and witnessed how the planet transformed through spring and summer.
- Titan the moon has hidden ocean – Saturn's largest moon, bigger that Mercury, hides dunes, mountains of water ice and seas of liquid methane. It's the solar system's only moon with liquid reservoirs on its surface.
- Secret to Saturn's Rings – Unlike other planets, Saturn has retained its rings through nearly 5bn ears of the solar system. Cassini captured how the moons, and moonlets, push and tug at the rings made of ice and dust. The interchange of material is what 'feeds' the rings.
- Far from Tranquil Saturn has 'Hurricanes' – Saturn turbulent atmosphere churns with storms; Cassini got an up-close look at the north polar storm: its eye was 50 times wider than an Earth's hurricane's eye.
- Only other planet with Lightning – The 'hurricane-like' storm contains 'lightning'. In 2009 cameras snapped images of Saturnian lightning – a first video of lightning discharging on a planet other than earth.

Acknowledgments:
Wikipedia, Articles published in the local daily of Ahmedabad, The Times of India dated April 4, 2017 and Sept. 16, 2017 and in vernacular daily Gujarat Samachar dated Sept 6, 2017 and Sept 13, 2017. Some of the images are taken from www.ebay.com and www.delcampe.net for illustration purpose only with no commercial motive. The author thankfully acknowledges all sources of information.

Association News

BEAUTIFUL INDIA

Kumari Surya daughter of our life member Shri. Gopakumar. S. won the First prize in photography competition held by Department of Post. Her award won photograph was used in the First Day cover of Beautiful India issued on 15.08.2017. Ananthapuri Philatelic Association felicitated her on the achievement during our monthly meeting held on 01.10.2017.



1. A gift being presented to Kumari Surya at the monthly meeting by Shri. Balakrishnan Nair, President of APA. 2. The FDC with the photograph issued by India Post on 15.08.2017.

DHAI AKHAR

Ananthapuri Philatelic Association actively participated in the releasing function of Special Cover "Dhai Akhar" at GPO, Thiruvnanthapuram on 02.10.2017. The cover was released by Director of Postal Services by handing over the album to our treasurer Shri.Jacob Philip. APA president Shri.Balakrishnan Nair presided the meeting.

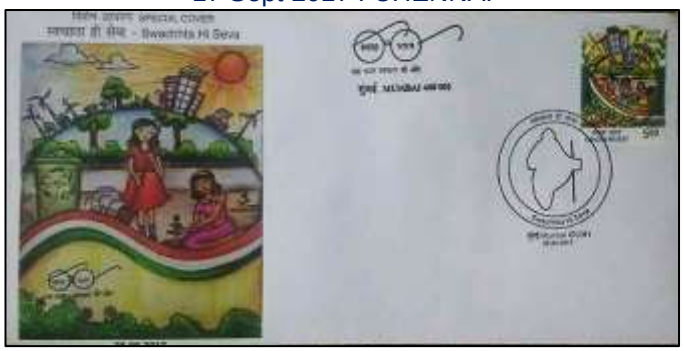
Release of Special Cover "Dhai Akhar" at GPO, Thiruvananthapuram

SPECIAL COVERS

SWACHHTA HI SEWA

17 Sept 2017 : CHENNAI

22 Sept 2017 :JAIPUR



25 Sept 2017 : MUMBAI

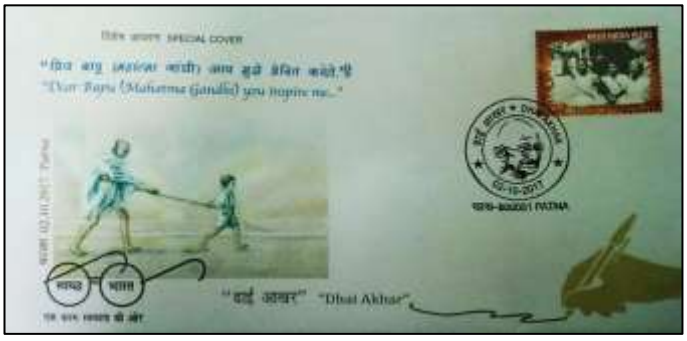
02 Oct 2017 : AMBALA

DHAI AKHAR (02 Oct 2017)

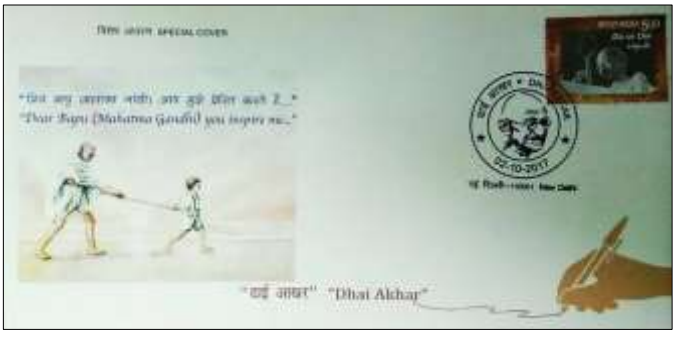
India post conducted a letter writing competition and its Circle level prize distribution was conducted in all Postal Circles of India Post and mega prize distribution conducted at Gandhi Ashram, Ahmedabad. In this connection all Postal Circles issued Special Covers with small differences in printing style and designs. Out of the 41 place cancellations all over India and 5 additional covers from Vijayawada, some images are provided below.

AHMEDABAD

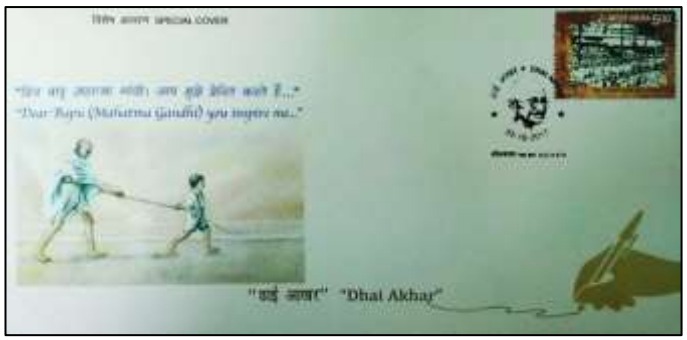
VADODARA



PATNA

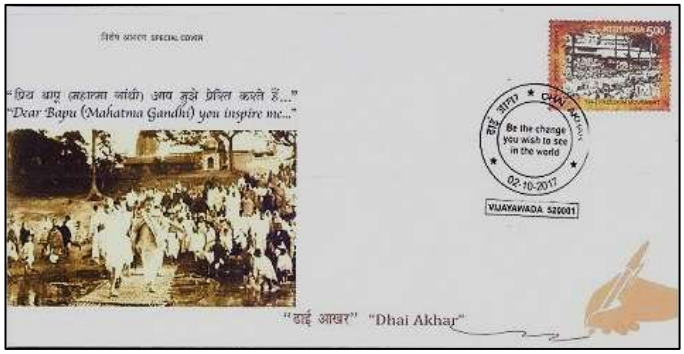


NEW DELHI

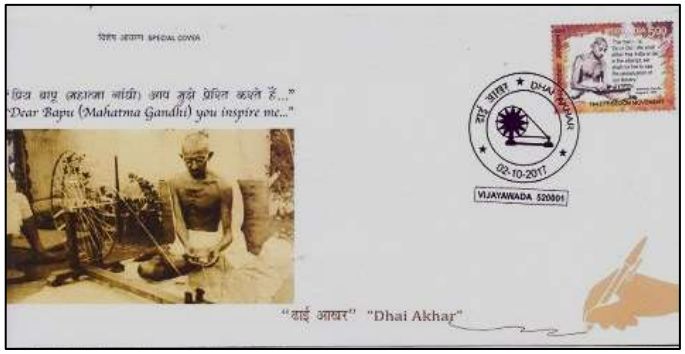


KOLKATA

CHENNAI



VIJAYAWADA

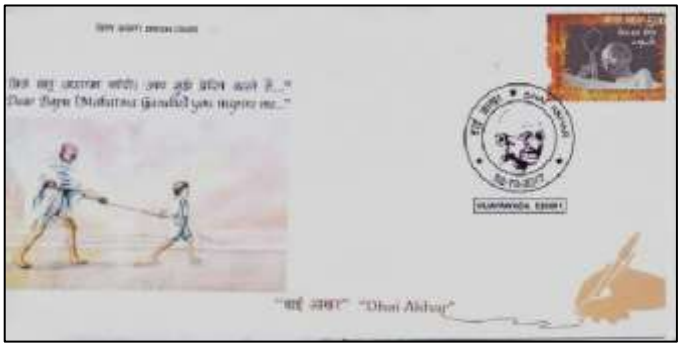


VIJAYAWADA

VIJAYAWADA

VIJAYAWADA

VIJAYAWADA



VIJAYAWADA

02 Oct 2017 : KOLKATA
Junior World Cup Football

07 Oct 2017 : KALOOR
FIFA Under 17 World Cup 2017

CAUVERY MAHA PUSHKARAM

19 Sept 2017 : KODUMUDI

21 Sept 2017 : BHAWANI KUDAL

22 Sept 2017 : HOGNEKAL

17 Jan 2017 : DUMKA
Shiv Circuit

18 Feb 2017 : JAMSHEDPUR
Late K K Singh

31 July 2017 : VISHAKHAPATNAM
Late Com. M V Bhadram

13 Aug 2017 : BATHINDA
1ST Post Office Passport Seva Kendra of Punjab

18 Aug 2017 : LUCKNOW
Pandit Shrilal Shukla

10 Sept 2017 : PUNE
PDCC Bank

17 Sept 2017 : PUNE
Lohgad Fort

21 Sept 2017 : DARBE
St. Philomena College

27 Sept 2017 : NEW DELHI
All India Management Association Diamond Jubilee

29 Sept 2017 : KARUMATHAMPATTI
Consecration of our Lady of Holy Rosary shrine

02 Oct 2017 : KOLKATA
100 Years of Gandhiji & Shri J.L.Nehru's First Meeting

02 Oct 2017 : KOLKATA
100 Years of Gandhiji's Champaran Satyagraha

02 Oct 2017 : RANCHI
Khadi India

04 Oct 2017 : NEW DELHI
The Institute of Company Secretaries of India

04 Oct 2017 : BENGALURU
World Animal Day

07 Oct 2017 : THIRUVANAI KOIL
Centenary celebration of the High School

10 Oct 2017 : RANCHI
Central Institute of Psychiatry

12 Oct 2017 : SAMBALPUR
Hirakud Dam

16 Oct 2017 : NEW DELHI
National Security Guard

17 Oct 2017 : NEW DELHI
Indian Building Congress Headquarters Building

12 Oct 2017 : HYDERABAD
Philately Day

17 Oct 2017 : ALIGARH
Aligarh Muslim University

DISTRICT LEVEL PHILATELIC EXHIBITION – DALTONGANJ

13 Oct 2017
St. Mariam's School

13 Oct 2017
Nilamber – Pitamber University

14 Oct 2017
Vanachal Educational and Welfare Trust

Courtesy: Sreejesh Krishnan, Thiruvananthapuram

New Issues from Other Countries

LITHUANIA

Grey Hare, Badger and Royal Stag
Issued on 17.10.2017

AUSTRIA

Single Horse drawn rural postal vehicle
Issued on 16.09.2017

Traditional costume of Grinzing
Issued on 18.10.2017

Modern Architecture
Issued on 18.10.2017

New Postal Stationeries

In connection with World Post Day, a set of 5 commemorative post cards, Inland letters and envelopes each on the theme, Postal Heritage Buildings were issued by India Post. The images of Delhi GPO, Mumbai GPO, Shimla GPO, Kolkata GPO and Patna GPO are depicted on the stationery.

NEW MEGHDOOT POST CARDS

Following five new Meghdoot Post cards are available at Chennai Philatelic Bureau.

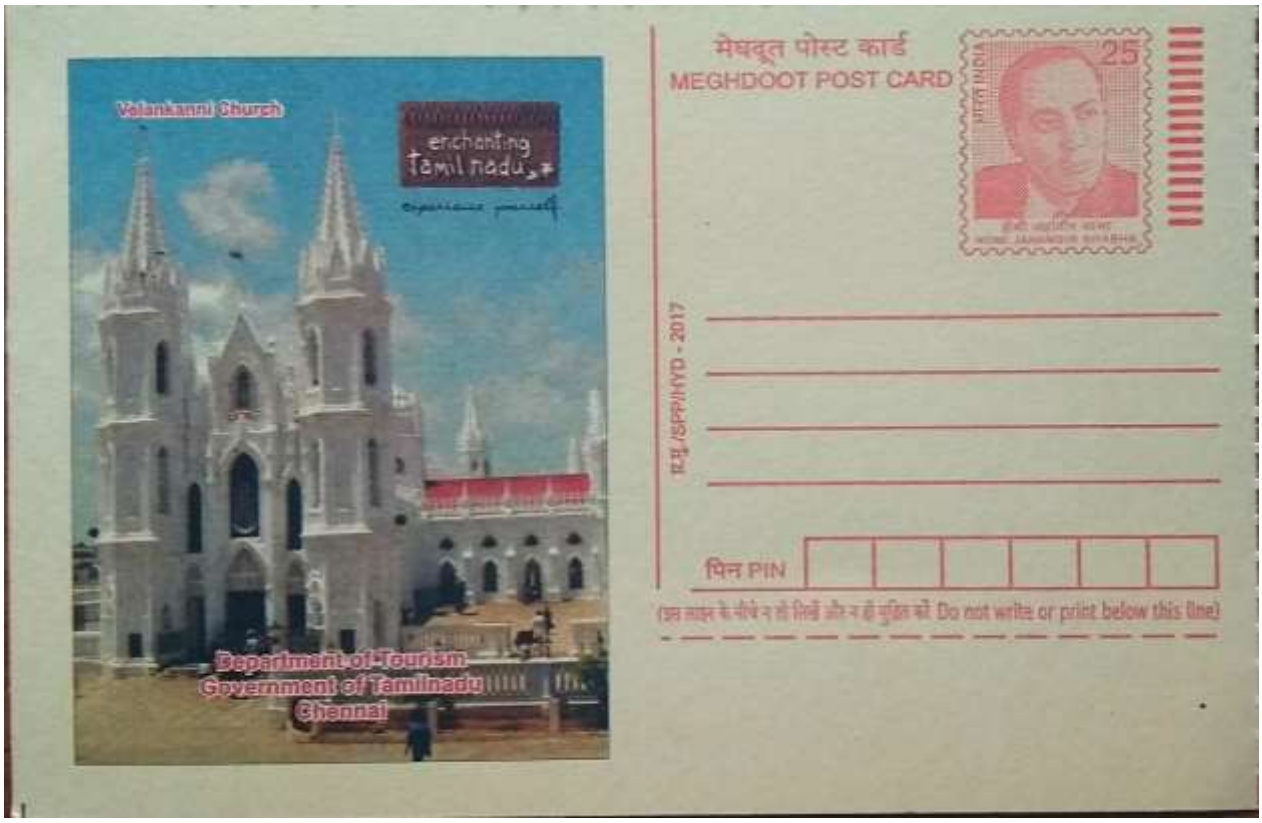


Image Courtesy: C. Madhavan, Madurai

INCREDIBLE INDIA PICTURE POST CARDS

A Pack of 18 picture post cards on the theme Incredible India was released at Coimbatore by Post Master General on 12.10.2017 in connection with Philately Day. The cost of the pack is Rs.100/- and is available at Coimbatore Philatelic Bureau and all philately extension counters and post shopee. Orders may be placed with Philatelic Bureau, Coimbatore. Individual picture post card without stamp is being sold to students at Rs.6/- per card.

Picture Post Cards on Incredible India

ANANTHAPURI STAMP BULLETIN ON CD

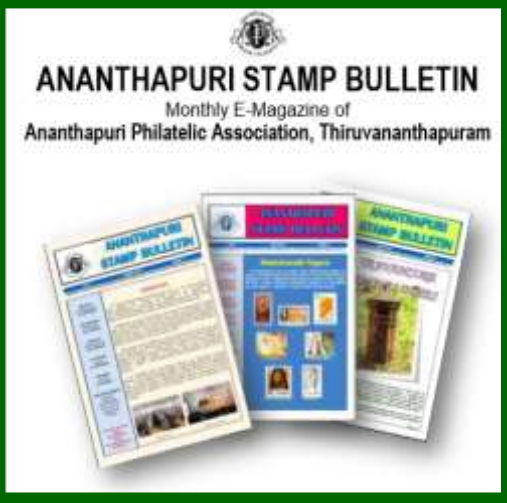
Old issues of Ananthapuri Stamp Bulletin
Vol.1 (Issue Nos.1 to 15)
are available on CD

The cost of the CD is Rs.100/- plus postage Rs.40/-
Those who wish to purchase the CD may contact
Mobile: 9387801948 or email:apa.tvpm@gmail.com

The amount can be deposited in our SB account with
State Bank of India, Marakkada Road Branch, Thiruvananthpuram.

A/c No.32270854728, IFS Code: SBIN0003826

Secretary
Ananthapuri Philatelic Association



Forthcoming Events

7 TO 9 NOVEMBER, 2017

VIRASAT-2017

Intach Gwalior Chapter and Gwalior Numismatic & Philatelic Society will conduct an exhibition of Coins, Paper money, Stamps and Autographs at Kala Vithika, Padav, Near Railway Station, Gwalior from 7th to 9th November, 2017.

10 TO 12 NOVEMBER, 2017

KUMARIPEX-2017

Kanyakumari District Numismatic & Philatelic Association will organise a philatelic and numismatic exhibition during 10, 11 & 12 November, 2017 at Valanar Marriage Hall, Nagercoil, Tamilnadu.

17 TO 19 NOVEMBER, 2017

24TH NATIONAL LEVEL COINS & STAMPS EXPO-2017

The Exhibition will be held on 17, 18 & 19 of November, 2017 at SRT Hall, 2nd Cross, Thillai Nagar, Main Road, Tiruchirappalli, Tamil Nadu

30 NOVEMBER TO 4 DECEMBER, 2017

INPEX-2017

The National Philatelic Exhibition INPEX-2017 will be held from 30th November to 4th December, 2017 at World Trade Centre, Cuffe Parade, Mumbai.

2 TO 4 FEBRUARY 2018

HYDERABAD EXPO-2018

A 3 day exhibition of old coins, bank notes, stamps has been organised by Hyderabad Philatelic & Hobbies Society at Federation House, Telangana & Andhra Pradesh Chamber of Commerce & Industry, 11-6-841 (Near Lakdi Ka Pul), Red Hills, Hyderabad.

Acknowledgement:

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Forthcoming Issues of India

01.11.17 Kavi Muddana, Adikavi Nannaya
Draksharamam Bhimeswara Temple
03.11.17 Indian Cusine
09.11.17 Dr.Shambhunath Singh
14.11.17 Children's Day-Nest
07.12.17 Indian Navy Submarine Arm
12.12.17 Gourishankar Govardhandas Joshi 'Dhumketu'
28.12.17 Dr. Shivajirao G Patwardhan 'Dajisaheb'
Goan Tiatr (125th Anniversary)
Stepwells of India
Traditional Indian Hand Fans, Set of 16 stamps, Rs.240
Dadabhai Naoroji
India-Papua New Guinea Joint Issue, Set of 2 Stamps
Shri. Shirdi Saibaba (Miniature Sheet only)
Pilatus Induction

Articles are invited from readers with illustrations to be published in this bulletin. Please send your write ups in MS Word only, to our email ID apa.tvpm@gmail.com. News and philatelic activities in your locality are also welcome. Philatelic Clubs and Associations may send their brief reports on day to day activities.

Editor

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