



#### Cost Includes

- Accommodation on twin/double sharing basis for 19 nights in good quality hotels.
- International return economy class flights between the UK and India on scheduled airline services.
- UK departure taxes.
- Visa (we will obtain on your behalf).
- Based on room with breakfast and dinner in the hotels.
- Transfers and sightseeing by air conditioned vehicle as per the itinerary.
- Entrances at monuments at all cities as per the itinerary.
- Rickshaw ride in Delhi.
- Elephant Ride at Amber Fort, Jaipur.
- Boat ride on Lake Pichola in Udaipur.
- Services of an English speaking escort cum guide for the tour as per the itinerary.
- Services of a Tour Manager and a SPACE representative.
- Gratuities for the drivers, guides, porters.

#### Cost Excludes

- Insurance – it is a requirement that you have insurance for your holiday.
- Any personal expenses such as laundry bills, telephone bills, beverages.
- The cost is based on current fuel prices, taxes and other statutory levies. In case of any increase in the same or any other inputs, we reserve the right to amend the price accordingly.

- The cost is based on current exchange rates. In case of more than 4% difference in exchange rates (at the time of operation of the tour) we reserve the right to adjust prices accordingly.
- Single Room Supplement.

#### Passports & Visas

A valid passport is required for entry into India with a minimum validity of 6 months from the date of departure from India. Just download and complete the visa form online at <http://in.vfsglobal.co.uk> and post to Interchange together with 2 passport sized photos and your passport and we will then check the details and make the application to the visa office on your behalf.

#### Health

At the time of writing no inoculations are compulsory if you are arriving from Europe, the United States or Canada. If you are entering from Africa or parts of Latin America, certification of Yellow Fever inoculation is required.

General recommendations for travellers to India are:

- Anti-malarial medications
- Tetanus; Gamma Globulin (Hepatitis)
- Viral Meningitis

For further information contact your Doctor well ahead of your departure.

#### Currency & Air Fares

Local costs are based on £1 = 1.48 USD as published in the Financial Times on 16th January, 2009 and airfares as at 16th January, 2009.

#### Consumer Protection

The air holiday in this leaflet is ATOL Protected, since we hold an Air Travel Organiser's Licence granted by the Civil Aviation Authority. Our ATOL number is ATOL 2429 (G. Burnett trading as Interchange.) In the unlikely event of our insolvency, the CAA will ensure that you are not stranded abroad and will arrange to refund any money you have paid to us for an advance booking. For further information, visit the ATOL website at [www.atol.org.uk](http://www.atol.org.uk)

#### Booking

Contact:

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Tel: 020-8681-3612

E-mail: [interchange@interchangeworldwide.com](mailto:interchange@interchangeworldwide.com)

Quoting the reference:  
**ASTRONOMY/INDIA**

Our thanks to the India Government Tourist Office for their invaluable help in the research of this project.

We reserve the right to change the information in our leaflet. This leaflet is issued on the sole responsibility of the Tour Operator. It is not issued on behalf of and does not commit the Airline(s) mentioned therein, or any Airline whose services are used in the course of the tour. The liability of any Airline involved in the carriage of passengers and their baggage shall be limited by the terms and conditions of carriage of the Airlines.



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# TOUR TO INDIA

## Jantar Mantar Observatory



### 2009 YEAR OF ASTRONOMY

## UNIQUE OPPORTUNITY ASTRONOMY DISCOVERY TOUR TO INDIA

Planned Dates: 1st – 20th September 2009

Interchange is pleased to offer a unique discovery programme investigating the finest and most fascinating astronomy sites of India, accompanied by a representative from S.P.A.C.E. (Science Popularisation Association of Communicators & Educators PVT, LTD – [www.space-india.org](http://www.space-india.org)) a voluntary organization comprising dedicated and eminent astronomers, science communicators and educators.

Limited numbers, applications are now invited.



Licensed and bonded by  
the Civil Aviation Authority

# PROGRAMME INTRODUCTION

The year 2009 will be celebrated as International Year of Astronomy to commemorate the 400th year since Galileo first used the telescope (Source Times News Network). One of the objectives during this important year is to raise the interest and awareness of Astronomy. There will be prominent speakers from the world of astronomy and astro-physics in India.

## Why India?

### Past

The Science of Astronomy like many other Sciences was discovered in India and from there travelled to other countries, Arabia being the first to grasp the importance of the correct measure of time. The home of some of the oldest Astronomers / Observatories in the world dating back to 1688.

### Present

India is moving ahead in the Space race and became the second country in the world to achieve the difficult feat after Russia, putting 10 satellites into orbit some 600km above the earth rocketing India into space history, on Saturday the 26th of April 2008, of these 2 were from India the other 8 from Canada, Japan, Denmark, Germany and the Netherlands who participated in the Cartosat 2a mission.

### Pune

A private Observatory founded by Capt. V.S. Jacob and was in operation from 1842 until his death in 1862. The work done by the founder was the observation of 244 double stars of which he published a catalogue. He is also famous for his calculation of the orbits of a few binaries e.g. Centauri and in particular for the triplicity of Scorpius in 1847.

### Also in Pune

IUC (Inter-University Centre for Astronomy and Astro-physics). IUCAA Giant Metrewave Radio Telescopes Site Commissioned in 1970. We will see the array of radio telescopes and visit the processing unit GMRT National Center for Radio Astro-physics & TATA Institute of Fundamental Research. Special sessions on Science Popularization Amongst the Public and How to Spread Science conducted by the Professors at IUCAA and SPACE.

### Udaipur

#### Udaipur Solar Observatory

Situated on an island in the middle of Lake Fatehsagar the sky conditions at Udaipur are very favourable for Solar Observations. The large body of water surrounding the telescopes decreases the amount of heating of the surface layers, this decreases the turbulence in the air mass. The main objective of obtaining the high spatial and temporal resolution observations of Solar photospheric and chromospheric activity is to understand the dynamic phenomena occurring on the surface of the Sun.

### Mt. Abu

The Observatory adjacent to Gurushikhar (the highest peak in India) is at an altitude of 1680 metres, the site has been found to have some cloud free nights of around 150 per year, so excellent for astronomical observations.

The optical system of the telescope consists of 1.2m paraboloid primary mirrors that can be used in conventional Cassegrain and Coude configurations using hyperboloid secondary mirrors. The standard Cassegrain configuration utilises a non-vibrating secondary mirror with an effective focal ratio of f/13.

### Nanital

Aries Observatory Optical telescope 40" and 22" completes the tour from an Astronomy point of view.

Milky Way Hunt followed by a Star Gazing session researched from Space.

### Delhi

Nehru Planetarium / Dam Dama Laka for a Sky Observation (overnight) and experience the largest amateur telescope in India (20").

### Jaipur

Sawai Jai Singh (considered to be the Newton of the East, born in 1688) was predicted by Court Astrologers to his father Raja Bisham Singh of Amber that his son would shine like Jupiter in the

galaxy. Jai Singh was crowned at the age of 11 on January 25th 1700 and was educated by the Ancient Luminaries of Hindu Astronomy. As a devoted student of astronomy Sawai Jai Singh had a universal approach to the subject studying foreign classics like Ptolemy's Syntaxis and Mirza Ulugh Beg's Astronomical Tables. However, unhappy with results following extensive research by scholars traveling abroad who returned with many manuals on cutting edge technology. One manual contained a copy of La Hire's Tables and the King ordered the Observatory built according to the details contained in these manuals. When the construction was complete they were astonished to find the Observatory was 20 seconds more accurate than the Tables. The Observatory is the largest and best preserved Observatory in a series of 5 made by him and completed in 1728 A.D.

### Fati Shriki

The deserted red sandstone city built by Emperor Akbar as his Capital. The ruins are still in pristine condition and it was here that he ruled from 1570-85 and the Emperor spent many hours with his hobby of Astronomy.

### Agra

The Capital of Sikandar Lodi from 1509 A.D. first attained its height of magnificence under Akbar Agra, after the Moghuls had overrun the city.

### Ahmedabad

Home of The Physical Research Laboratory (PRL).

Get to know the various labs including a rare Gas Mass Spectrometer Lab and the Radio Carbon Dating Lab. Learn through interaction with senior researchers and a Scientist/Astronomer in the Meteorites section.

## CITIES & CULTURE INFORMATION

During our visit to India we will have the opportunity to visit the ancient and historical sites in the cities of Delhi – Jaipur – Agra – Udaipur.

### Delhi

The famous India Gate. Drive past the Red Fort & palatial official building into Old Delhi, the former centre of Moghul Power with its colourful bazaar. See the stately government buildings of the British Era designed by Luytens.

### Nanital

See the Church of St. John in the Wilderness built in 1846 – one of the earliest colonial structures.

### Udaipur

Take a boat cruise on Lake Pichola and see the wonderful views of the City Palace. This is one of India's most romantic cities.

### Mt. Abu

See the stunning array of exquisite Dilwara Jain Temples, beautifully carved and built between the 11th-13th centuries A.D. Sheer elegance in marble dedicated to the first Tirthankara built in 1031 A.D. by Virnal Shah a merchant and representative of the then Gujarat ruler.

### Jaipur

Well known as the Red City with its famous Amber Fort situated on a ridge just outside the city.

### Agra

Of course no visit to India would be complete without the Taj Mahal built by the Moghul Emperor Shahjahan in 1630 in memory of his wife Queen Mumtaz Mahal. The Emperor was heartbroken when she died giving birth to her 14th child after 17 years of marriage. Visit the Agra Fort also known as the Red Fort.

The full itinerary is available on our website: [www.interchangeworldwide.com](http://www.interchangeworldwide.com) and the basis for the technical programme will be visits to different observatories and institutions.

# COST: £4,450 per person

(Based on twin-sharing accommodation with private facilities)