

See the Dazzling Draconid Meteor Shower!

Treasures of TURKEY

Come explore with the Planetary Society • October 3-14, 2011

Dear Members & Friends:

We invite you to join us to see the cultural wonders of Turkey during the rain of falling stars known as the **Draconid Meteor Shower, October 3-14, 2011**. In 2011, it is predicted to be one of the greatest meteor showers in the last 50 years, with upwards of 500 falling stars an hour! And Turkey will be the best place to see it!

Our expedition will begin in the enchanting international city of **Istanbul**, situated on the **Bosporus Strait** (the route to the Black Sea) and a bridge between Europe and Asia! Here we will visit the outstanding **Topkapi Place**, which once housed Sultans who ruled much of the Middle East. We will also walk under the dome of the great **Blue Mosque**, and see priceless treasures from around the world.

We'll have a special visit to the **University of Istanbul's Old Observatory** and learn about historic astronomical techniques as well as their modern work in solar and astrophysics.

We will then fly to ancient **Cappadocia**, a city of caves, and one of the oldest cities in the world. We will stay in a cave-like hotel carved in the rock cliffs. After dinner, we will have a lecture on the **Draconid Meteor Show**, followed by a look at the night sky in preparation for tomorrow night's meteor display (which has the potential to be dazzling). What a fascinating setting for the Meteor Shower!



October 8, 2011, Earth will pass through two main streams of particles ejected by comet Giacobini-Zinner becoming meteors if they enter our atmosphere.

1 million miles

19:57 UT

17:09 UT

Path of the Earth

A short flight will take us to the Aegean Coast where we can ramble among the superb Greco Roman ruins of **Ephesus** and the **Temple of Artemis (Diana)** which was one of the Seven Wonders of the Ancient World.

The following day we will visit **Pergamum**, famous for inventing parchment paper. It had a large library, **Acropolis**, the altar of Zeus, and the 10,000-seat amphitheatre. We will then follow a winding road to the picturesque village of **Asclepion**, a fourth century shrine to the God of Medicine.

Other adventures will await us in **Assos** and renowned **Troy**, one of the oldest discovered sights along the Aegean Coast, with nine different settlements and 30 outlying cities with its centerpiece the symbolic wooden **Trojan Horse**.

We invite members with an appetite for adventure

and discovery to explore the wonders of Turkey, with good expectations of a fiery meteor display. Enjoy trip leadership by **Bob Nansen** and our popular archaeological guide!

Sincerely,

Bill Nye, The Science Guy®
Executive Director



Itinerary

Day 1 Depart for Istanbul

Depart New York's JFK International Airport on a nonstop flight to Istanbul.

Day 2 Istanbul

Upon arrival in Istanbul, meet your guide at the airport and transfer to the hotel. Time for rest and leisure. In the evening enjoy a Welcome Dinner. *Ramada Old City Hotel, Istanbul (3 nights)*. D

Day 3 Istanbul—Topkapi Palace

We will devote the entire day to sightseeing in Istanbul. First of all, we will stop at the outstanding Topkapi Palace, once home to the great Sultans. It is filled with treasures and antiquities including twelve thousand pieces of fine Chinese porcelain. Then we will visit the Blue Mosque, built in 1609 by Sultan Ahmet. The interior walls are covered with twenty thousand blue Iznik tiles. Our sightseeing will continue at the excellent Archaeology Museum with displays on Troy and Assos, followed by a visit to the Underground Basilica Cistern which supplied water to the imperial palaces. B

A Deluge of Draconids

Everyone is thrilled when a shooting star lights up a dark night sky. These small bits of metallic or stony matter then fall to Earth to provide nuggets of information for astronomers. These bits of the original material of the solar system help us understand the formation of the early solar system and the origin of the Earth and our satellite, the Moon.

Each year the Earth's path around the Sun encounters the debris of different comet's tails. These sand size particles enter the Earth's atmosphere and begin to heat up when they come in contact with the denser atmosphere at about 65 miles above the Earth. Each night meteors rain down on the Earth, but only a few are seen.

The Draconid meteor shower is generally a minor shower among the 10 major showers yearly. **For the October 2011 meteor shower the predictions for the number of meteors range as high as 600 per hour.** The Draconids have had dazzling displays in the past, in 1933 and 1946, when the Earth went through the dusty tail of the Giacobini-Zinner Comet. The comet's tail has different densities of debris and the Draconid Meteor Shower is going through a predictably dense portion of space dust in 2011.



The predictions for 2011 are so great that NASA is considering adjusting the flight path of some satellites to reduce the chance of a minor impact. The Hubble Space Telescope can be pointed away from the Draconid radiant—the point in the sky from which, to an Earthly observer, the meteors appear to emanate.



Courtesy of Wikipedia & April Milne

Day 4 Istanbul—Hippodrome & St. Sophia

This morning, we will explore the Hippodrome and Basilica of St. Sophia, which has inspired architects and religious leaders for over fifteen hundred years. Constructed in 326 by Constantine the Great, it has been a cathedral, a mosque, and is now a museum. In the afternoon we will visit the Old Observatory at Istanbul University and learn about their research in solar and astrophysics. B

Day 5 Istanbul to Cappadocia

Today we will take a short flight from Istanbul to Kayseri near Cappadocia. We'll explore Kultepe, the site of the Ancient Kingdom of Kanesh and then drive to the Rock-cut Monastery at Eski Gumusler. *Gamirasu Cave Hotel, Cappadocia (2 nights)*. Enthusiasts may begin to look for meteors this evening. B,D

Day 6 Cappadocia & Draconid Meteor Shower

Our sightseeing will begin with a visit to the fascinating Göreme Valley. The lunar-like landscape of this region is eerie, yet beautiful. Over thousand of years, the rain has eroded this landscape to give rise to strange rock formations known as "Fairy Chimneys". Many of these have homes and churches carved into them. Some of the grottoes are magnificently decorated with colorful frescoes depicting biblical scenes. We will then visit a carpet cooperative to learn about this important local industry. We will also visit Asikli Hoyuk, the earliest settlement in Anatolia.

This evening, after dusk, we will depart for an area with very dark skies to observe the Draconid Meteor Shower. Everyone can relax in a comfortable chair, as we gaze at the heavens and await the blazes of the meteors across the sky! B,D

Day 7 Cappadocia to Kusadasi

We will depart to visit a typical Turkish village, Avanos, to see the techniques of ceramic art dating from the 12th to 3rd Century BC. We will watch the villagers make pottery, which is quite interesting! We will also enjoy a tour of the Underground City of Kaymakli built by the Christian inhabitants of this region tunneling into the soft volcanic rock of a large hill. Transfer to Kayseri Airport for a direct flight to Izmir on the Aegean Coast. *Grand Onder Hotel, Kusadasi (2 nights)*. We may continue to look for meteors this evening. B,D

Day 8 Kusadasi & Ephesus

Today's excursion goes to Ephesus, the largest ancient city uncovered in Turkey. Ephesus was also a port city linking Sardis to Susa. Once populated with three hundred thousand people, it has an enormous amphitheater, which can still hold 24,000 spectators. As we walk down the marble covered streets, we'll see the Temple of Artemis (Diana) which was one of the Seven Wonders of the Ancient World. We will also see the Ephesus Museum with some world-famous works and the Basilica of St John. B,D

Day 9 Kusadasi—Pergamum—Assos

Today our road will take us to the ancient city of Pergamum. Famous for the invention of parchment paper, Pergamum had a library containing two hundred thousand books. We will visit the Acropolis, the altar of Zeus and the ten thousand-seat amphitheatre. At the Pergamum Museum see the 4th century BC kuros, an early example of realism of the sculpted human form. Then visit marvelous Asclepion, a fourth century BC shrine to the healing God Asclepius. A winding road will take us to the sacred center of Asclepion. Spend the night in a charming ancient stone hotel. *Kervansaray Hotel, Assos (2 nights)*. B,D

Day 10 Assos & Troy

This morning we will visit ancient Assos leaving Behramkale, in a gorgeous setting overlooking the Aegean and the island of Lesbos. The rugged summit at Assos is surrounded by an impressive wall. Here the spectacular Temple of Athena was built in 530 BC. It is the only surviving example of Doric architecture in Anatolia. We will also visit Troy, one of the oldest discovered sights in Asia Minor with 9 different settlements and 30 related cities, including the symbolic wooden Trojan horse commemorating the legendary war. B,D

Day 11 Assos—Bursa—Istanbul

Today we will visit Bursa the first capital of the Ottoman Empire. See the fifteenth century Grand Mosque, one of the most striking examples of Ottoman art and visit the Green Ottoman Complex before continuing to Istanbul. *Ramada Old City Hotel, Istanbul (1 night)*. Enjoy a farewell dinner in celebration of our journey. B,D

Day 12 Istanbul to USA

After a farewell breakfast transfer to Istanbul's Ataturk Airport for our return flight to New York, arriving the same day. B



Reservations

#1147

Yes! I/We want to join the **Treasures of Turkey/Draconid Meteor Shower Expedition, October 3-14, 2011**, offered by **The Planetary Society & Betchart Expeditions Inc.** Please reserve ____ space(s) on the expedition. As a deposit, I/we have enclosed a check for \$____ (\$500 per person), payable to Betchart Expeditions Inc. Trust Account.

Name(s): _____ Age ____ Sex ____

_____ Age ____ Sex ____

Address: _____

City _____ State ____ Zip ____

Phone: Home (____) _____

Work (____) _____

Email: _____

Citizenship: ____ USA ____ Canada Other: _____

Membership: _____
____ Planetary Society ____ AAAS ____ Sigma Xi ____ ACS

Accommodations Preference:
____ Twin ____ Single ____ Twin Share ____ with a friend or
____ Nonsmoker ____ Smoker ____ assign a roommate

Signature: _____ Date: _____

Signature: _____ Date: _____

**Please Mail To: Turkey Meteor Shower 2011
Betchart Expeditions Inc.
17050 Montebello Road
Cupertino, CA 95014-5435**



Costs & Conditions

Expedition Fee: \$3,995 per person twin share + air fare of approximately \$695 + tax from New York's JFK International Airport to Istanbul, RT + in-tour air of approximately \$350 per person.

Single Supplement: We encourage all singles to bring a roommate. If you prefer a single or do not have a roommate, the single supplement is \$595 per person.

Expedition Fee Includes: Group transfers; transportation by coach; accommodations based on twin share in first class country-style hotels with private bath which reflect the heritage of Turkey; meals as indicated; entrance fees; tips at hotels; baggage handling; tour leadership by an excellent guide; administration.

Expedition Fee Does Not Include: International and in-tour air fare (quoted separately); independent transfers; lunches, 2 dinners; tips to your guide and drivers; beverages at meals; alcoholic beverages, snacks, sodas, bottled water, laundry, internet use, phone, fax, passport, Turkish visa, travel insurance, or other personal expenses; foreign airport departure taxes.

What to Expect: This expedition is for the travel enthusiast who would like to explore the treasures of Turkey, including what may be a dazzling display of the Draconid Meteor Shower on October 8, 2011. Led by an excellent naturalist and a guide on the history and archaeological sites of Turkey, we will explore sites which are important to all of Western Civilization, including early cave villages in central Turkey and Greco-Roman sites along the coast, such as Ephesus and Troy. Near Cappadocia, viewing of the meteor shower should be optimal, with dark skies and a high probability of clear skies. In 2011 the Draconid Meteor Shower is expected to be the finest in the last 50 years. Typically it will be in the 60's to 70's with nights in the 50's. (No smoking in bus or vans, during lectures or meals, please.)

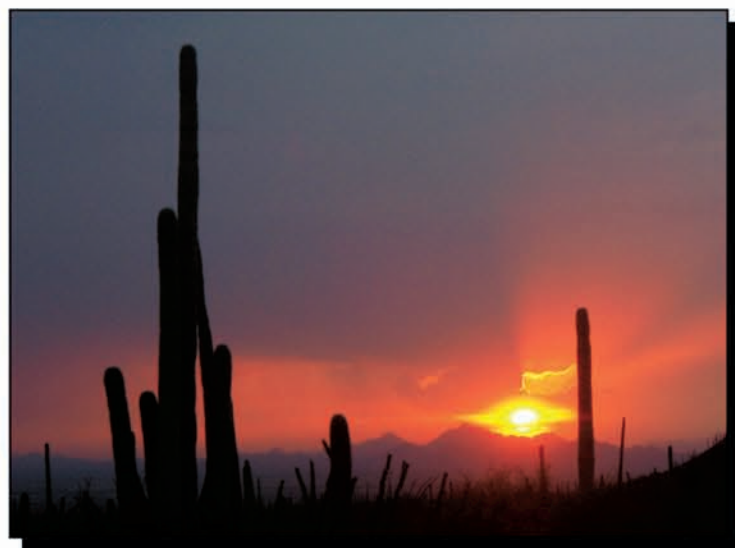
Pre- or Post-Nights in Istanbul: Can be booked at the *Ramada Old City Hotel* for \$170 per night/twin, or \$150 per night/single, including breakfast. Independent transfers \$70 per person.

Reservations, Deposits & Payments: To reserve a place on this expedition, please mail a deposit of \$500 per person with the completed reservation form. Final payment is due 60 days before departure (August 3, 2011).



Cancellations & Refunds: The initial deposit is refundable up to 60 days before departure less a handling fee of \$100 per person. There is no refund for any cancellation within 60 days of departure. Trip cancellation insurance will be offered. No refunds are made for unused services.

For reservations, please contact
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17050 Montebello Road, Cupertino, CA 95014-5435
Telephone (800) 252-4910 or (408) 252-4910
Fax: (408) 252-1444
Email: Taunya@betchartexpeditions.com
On the Web: www.betchartexpeditions.com



Coming April 24-May 1, 2011! Arizona Skies!

Join us as we explore new discoveries on Mars and the Moon and see the natural wonders of this desert paradise!

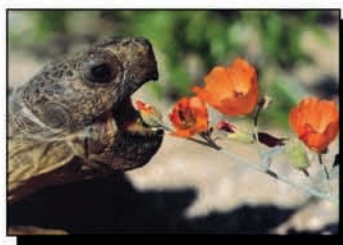
For a detailed brochure and reservations:

email: info@betchartexpeditions.com

telephone: (408) 252-4910 (intl.)

or (800) 252-4910 (USA)

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Map and illustration by April Milne.

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