

# Panama Canal / S. Caribbean Cosmic Trails™

**SKY  
& TELESCOPE**

DECEMBER 13-23, 2010

[www.InSightCruises.com/Sky](http://www.InSightCruises.com/Sky)

**CURIOS ABOUT THE BEAUTY OF THE NIGHT SKY AT SEA?**  
Game to explore facets of the moon, then take in a total lunar eclipse in the company of kindred spirits? Gather astronomy knowledge on a new wavelength aboard Cosmic Trails, December 13-23, 2010, on Holland America Line's m.s. *Zuiderdam*.

Journey with Sky & Telescope into the Panama Canal, whose engineering is the product of an historic struggle against Nature and skepticism. You'll get a behind-the-scenes look at the Apollo program; explore the road less traveled in the winter sky; see beyond the obvious, into the mysteries of the Moon; bring home an insider's techniques, tips, and tricks for getting the most out of lunar observation; and learn astrophotography details from basic to cutting edge.

While you're in balmy tropical climes, kayak with your companion through crystal blue Aruban waters and venture into Costa Rica's rainforests, surrounded by the sounds of birds and the colors of flora and fauna. Indulge your thirst for knowledge.

Sail with Sky & Telescope and indulge your thirst for knowledge. Relax with a friend; enjoy fun and camaraderie with fellow astronomers; rekindle a long-dormant fascination with the cosmos. Visit [www.InSightCruises.com](http://www.InSightCruises.com) or call Neil or Theresa at 650-787-5665 to get all the details, and then enrich your astronomy routine with an intellectual adventure with the Sky & Telescope community.



Holland America Line

FT. LAUDERDALE

Half Moon Cay

Curacao

Aruba

Puerto Limón  
(San José)

Cristobal, Panama  
PANAMA CANAL



During Our Trip:  
**TOTAL LUNAR ECLIPSE**  
Tuesday, December 21, 2010

Cruise prices start at \$999, per person, for an Inside Stateroom. For those attending our seminars, there is a \$1,275 fee. Taxes are \$244.23 per person. Port Charges and an InSight Cruises service fee are \$245.

For more info contact Neil at 650-787-5665 or [neil@InSightCruises.com](mailto:neil@InSightCruises.com)

Listed is a sampling of the 19 sessions you can participate in while we're at sea. For a full listing visit [www.InSightCruises.com/Sky-talks](http://www.InSightCruises.com/Sky-talks)

**Naked-Eye Astronomy** — Contrary to popular opinion, you can enjoy a lifetime of astronomy with little or no equipment other than your unaided eye. Learn to explore the constellations and see colors in the stars. Find out how to spot the International Space Station passing across your sky or watch the brilliant flash of an Iridium satellite. Know when to look for gatherings of the Moon and planets. Look for Sun dogs, Sun pillars, and radiant crepuscular rays. These and many more celestial wonders can be viewed by those who know where and when to look. **Speaker: Sue French**

**Telescopes for Stargazing** — A backyard telescope is a wonderful thing. But with the bewildering variety of equipment available today, it's difficult for the budding astronomer to know what best suits his or her needs. A lot can be done at modest expense, while some fairly expensive telescopes can be quite frustrating. Learn about the different types of telescopes, and what they are best suited for. Find out what accessories are essential, and which can wait. Discover how you can test drive telescopes and some of the equipment that goes along with them, as well as how to look for help when you need it. **Speaker: Sue French**

**Exploring the Night Sky with Binoculars** — Just about every one associates stargazing with telescopes — but even the most experienced backyard astronomer owns binoculars. But not all binoculars are created equal. In this talk Gary will tell you how to choose and use binoculars specifically for viewing the night sky. He also describes tips and tricks to help you get the most out of your viewing experiences. Finally, Gary lists the Top 10 binocular sights you can view while on our cruise. **Speaker: Gary Seronik**

**Origin of the Moon** — Although there are many ideas for how our Moon came to exist, only one makes sense chemically and physically: The Moon came from a Big Splash, the molten and vaporized rock that is ejected during a giant impact on Earth by a body about the size of Mars. I will describe how this not only explains the Moon but also sets the stage for all of subsequent Earth evolution. **Speaker: David Stevenson, Ph.D.**

**America the Beautiful at Night** — It's truly amazing results one can achieve with Landscape Astrophotography using just a tripod and 35mm camera with a standard lens. Whether you are a novice astrophotographer or an advanced imager, you will be amazed at the simplicity and beauty that you can obtain using basic equipment and a little know how. **Speaker: Walter Pacholka**

**Capturing the Light: The Night Sky** — In this session we'll cover all the basic techniques in capturing the night sky: cameras, lenses, exposure times, and camera setting as well as Landscape Astrophotography equipment that is good, better, and best for the budget imager or cutting-edge imager. By the end of this talk you'll understand the difference between what the eye sees and what the camera sees — and how to use this knowledge to make great photos. **Speaker: Walter Pacholka**

**Viewing and Understanding the Moon** — When is the best time to view the Moon? What kinds of features can I see? Where is the best place to look? These are just some of the questions answered in this talk. But perhaps most rewarding is developing an understanding of what it is you're seeing in your telescope. How did this crater form? Why does it look this way? Why are some parts of the Moon bright, and others dull? Why are some smooth, while other regions a jumble of craters? Equipped with a telescope and armed with the information presented in this talk, you can explore the Moon like a lunar geologist. **Speaker: Gary Seronik**

**Winter-Sky Wonders** — For many of us, this is the coldest time of the year — but it also harbors the most brilliant stars and some of the most spectacular wonders of the deep-sky. They include nebulae, clouds of gas and dust either glowing by their own light or reflecting the light of nearby stars; clusters of stars, both old and young; galaxies far beyond our own; multiple stars; and variable stars. And if that's not enough, we also have intricate Jupiter in our evening sky and awe-inspiring Saturn in the morning! **Speaker: Sue French**

**Apollo Astronaut Experience** — Only 24 men have been to the moon. While researching his landmark book, *A Man on the Moon*, Andrew Chaikin spent more than 150 hours interviewing 23 of the 24 Apollo lunar astronauts about every aspect of their incredible journeys. Chaikin will share anecdotes and insights from this extraordinary handful of men, the only humans to visit another world. **Speaker: Andrew Chaikin**



As we sail away from Fort Lauderdale, Florida, we'll kick off Cosmic Trails with observation of the **GEMINIDS METEOR SHOWER**.

## THE KENNEDY SPACE CENTER: AN INSIDER'S VIEW

NASA's launch headquarters, on the Space Coast, is the only place on Earth where you can tour launch areas, meet a veteran astronaut, and grasp the true enormity of the Space Program. Experience fun and wonder with Cosmic Trail companions in this private pre-cruise, custom, full-day tour. Get ready to walk among and beneath giant rockets, discover what it takes to launch the Space Shuttle from preparation to liftoff, and soak in Kennedy Space Center's "The Right Stuff" vibe.

We'll have an intense day with our expert guides, integrating the touchstones and experiences every visitor wants with behind-the-scenes sites seldom accessible to the public. The LC 39 Observation Gantry,

International Space Station Center, Apollo/Saturn V Center, and Astronaut Hall of Fame are on the agenda. We will not only view but visit the Vehicle Assembly Building, the shuttle landing strip, and the 6-million-pound crawler that transports the shuttle. Do lunch with an astronaut, view IMAX films with footage shot during NASA missions, and enjoy the products of mankind's inspiration.

The Kennedy Space Center excursion is \$225; it includes all of the above plus dinner, and transportation from the Kennedy Space Center to our pre-cruise hotel in Ft. Lauderdale. For details/questions, please contact Neil or Theresa, or give us a call at (650) 787-5667.