

TRAVEL **QUEST**

2016  
TOTAL  
SOLAR  
ECLIPSE



**BALI** New Year



**Totality in 2012.** © 2013: MILOSLAV DRUCKMULLER, MAN-TO HUI, ROBERT SLOBINS, AND CONSTANTINOS EMMANOULIDIS.

# WELCOME

## DEAR ECLIPSE TRAVELER:

**A** SOLAR ECLIPSE is one of nature's grandest, and rarest, spectacles. We're so pleased you could join TravelQuest on our journey to Indonesia to witness the March 9, 2016, total eclipse of the Sun.

This two-part sourcebook is designed to help you get the most out of your eclipse-viewing experience. *Eclipse 2016 Bali New Year* introduces your TravelQuest team, includes information on the 2016 eclipse, and offers essential advice on safe solar filters. The companion PDF, *Solar Eclipses: What You Need to Know*, includes general eclipse information plus how to safely observe and photograph the event. Please familiarize yourself with this material before you travel.

We have carefully planned our viewing site to maximize the chances of successfully seeing totality. However, we do want to remind you that cloud cover is always a possibility. And while there is no guarantee of actually seeing totality, we can promise that you will experience the eclipse.

One of the rewarding aspects of an eclipse tour is the camaraderie that forms among eclipse chasers. We hope you enjoy your journey to totality.

*Bon voyage!*

Aram Kaprielian, President

TRAVELQUEST INTERNATIONAL

## CONTENTS

- 3** YOUR TRAVELQUEST TEAM
- 5** TOTALITY IN SOUTHEAST ASIA AND THE PACIFIC  
Totality crosses a variety of fascinating islands before sweeping into the Pacific.
- 7** THE SKY AT TOTALITY
- 8** SOLAR FILTER SUPPLIERS  
Listed are some suppliers of solar filter material for your optical equipment.
- 9** BALI NEW YEAR ECLIPSE ITINERARY
- 11** UPCOMING SOLAR ECLIPSES

COVER DESIGN: ELLEN ROONEY

---

# BALI NEW YEAR TRIP LEADERS

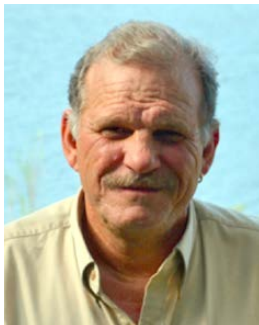
---



## TRIP MANAGER

**PAUL SWART:** Paul began his travel career in the safari industry in 1987 as an apprentice guide in the remote Linyanti Region of Botswana. He steadily worked his way up through the ranks at some of the finest game reserves and lodges in Southern Africa, and was recognized by the Condé Nast Portfolio as a preferred African safari guide. Before moving from South Africa to the USA in 1997, Paul served as General Manager for the award winning Sabi Sabi Private Game Reserve in South Africa, where he was instrumental in the development of the original “Game Rangers Course” for guests. He is currently the president (and the founder) of Natural Migrations.

A master of logistical planning, Paul has led nine previous TravelQuest eclipse trips — to South Africa, Zambia, Libya, twice in China, Cook Islands, Australia, Kenya, and most recently Svalbard in 2015. When he is not in his office he enjoys whitewater kayaking, snowboarding, and horseback riding.



## TRIP LEADER

**MICHEL GIRARDIN:** Michel has been involved in the South African eco-tourism industry for the past 28 years. He spent 16 years as Operations Director at Sabi Sabi Game Reserve and has owned and managed his own lodge since 2000. Michel is also a consultant in the eco-tourism field, and his consulting experience, in places as varied as Madagascar and Bhutan, stands him in good stead when dealing with operations at diverse destinations.

His association with TravelQuest started in 2002 when he coordinated our South African Solar Eclipse tour in Venda. Once exposed to totality by TQ, he was instantly hooked on this unique astronomical niche. Visiting exotic places to view “when the crocodile eats the sun” (a Shona proverb for a solar eclipse) has becoming a passion for Michel. He has subsequently worked for TQ as a Trip Manager for eclipses in Turkey, China, Easter Island, on the *Paul Gauguin* South Seas cruise, Ethiopia, and most recently in the Faroe Islands in 2015.



## TRIP LEADER

**ALEC KOZAK:** Alec was born and raised in Prescott, Arizona, the TQ office’s hometown. Since a young age, his experiences of travel through US National Parks and famous destinations have helped shape his exploratory view on adventure. Alec’s natural leadership qualities, love of travel, and attention to detail are just some of the qualities that he brings to our TravelQuest family. His artist and designer’s eye proves very helpful when maintaining the TQ website and creating the TQ documents we send to our travelers. His first experience of leading a TQ eclipse trip came in March 2015 in Svalbard. It was here that his previous years of organizing and working at summer Boys Scout camps proved very helpful while coordinating literally thousands of optional activities. Bali will be his second totality.

---

# BALI NEW YEAR TRIP LEADERS

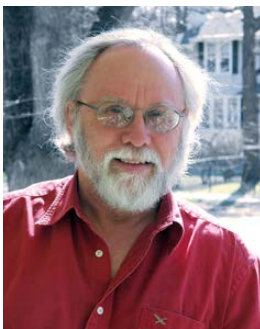
---



## TRIP LEADER

**WARREN GREEN:** Raised in South Africa, Warren has an immense appetite for the natural world. His career has steered him through a variety of organizations from the Wilderness Leadership School, where he pioneered trails and led groups through South Africa's unspoiled wilderness, to Sabi Sabi Private Game Reserve, South Africa's premiere Private Reserve. Here he worked as a game ranger and escorted more than 5,000 travelers on photographic safaris, including prestigious groups for the Museum of Television & Radio and National Geographic.

Currently Warren resides in rural Virginia where he operates a niche marketing company dedicated to supporting those tourism ventures that show commitment to the environment, both natural and cultural, in which they operate. This will be his third eclipse trip with TQ; previous trips were to the South Pacific (2012) and Svalbard in 2015.



## TRIP LEADER/ASTRONOMER

**JAY ANDERSON:** After acquiring a BSc in Physics and Astronomy from the University of British Columbia, Jay became a weather forecaster with Environment Canada, the Canadian government's official forecast agency. He compiled a study of weather prospects for the 1979 total solar eclipse and has been producing studies of the climatology along eclipse tracks ever since. In 1990 he joined with Fred Espenak to create, under NASA auspices, official compilations of upcoming eclipses.

In 1994, he joined Travel Bug (the precursor to TravelQuest) to help find an eclipse-viewing site in Bolivia. When Travel Bug turned into TravelQuest, Jay became an instrumental part of TravelQuest's eclipse-site location team and has worked with Aram Kaprielian steadily since that time. Now retired from the Meteorological Service, he is currently the editor in chief for the *Journal of the Royal Astronomical Society of Canada*, an ongoing contributor for the RASC's *Observer's Handbook*, and an occasional instructor in meteorology and climate change at the University of Manitoba.



## TRIP LEADER/ASTRONOMER

**RICH TALCOTT:** Richard is a senior editor at *Astronomy* and brings to the magazine a life-long interest in the science of astronomy as well as observing the night sky. He graduated from Marietta College, Ohio, in 1976 with a degree in mathematics. After attending graduate school at the Ohio State University, Rich returned to Marietta in the early 1980s as a lecturer in the physics department and joined the staff of *Astronomy* in early 1986.

Rich has written more than 100 feature articles on both the science of astronomy and observing the night sky. He is author of *Teach Yourself Visually: Astronomy*, an introduction to observing the sky with naked eyes, binoculars, and small telescopes. He also authored, in collaboration with Joel Harris, *Chasing the Shadow: An Observer's Guide to Eclipses*. Rich has seen 10 total solar eclipses.

# TOTALITY IN SOUTHEAST ASIA AND THE PACIFIC

**T**HE FIRST ECLIPSE of 2016 is a total eclipse of the Sun on March 9. It is the only total solar eclipse of the year, though there is an annular solar eclipse on September 1, visible across Africa.

## THE PATH OF TOTALITY

The total eclipse is visible from within a narrow corridor that traverses Indonesia and the Pacific Ocean. Totality begins in the Indian Ocean about 1,400 kilometers west of Sumatra at 00:16 [Universal Time](#) (UT). The Moon's umbral shadow makes first landfall in Sumatra (Sumatra) three minutes later. Here totality lasts 1 minute 56 seconds on the centerline, the path is 108 km wide, and the Sun's altitude is 14°.

The shadow engulfs Palembang (the second-largest city on Sumatra Island) before crossing the Banka Belitung Islands in the Java Sea. It sweeps through southern Kalimantan and traverses the Makassar Strait. The centerline duration in mid-strait is 2 minutes 43 seconds with the Sun 34° above the eastern horizon.

The umbral track continues across central Sulawesi, the Molucca Sea, and the island of North Maluku, where the centerline duration climbs above three minutes. Leaving Indonesia, the shadow travels northeast, passing about

540 km south of Guam, which experiences a partial eclipse of magnitude 0.87.

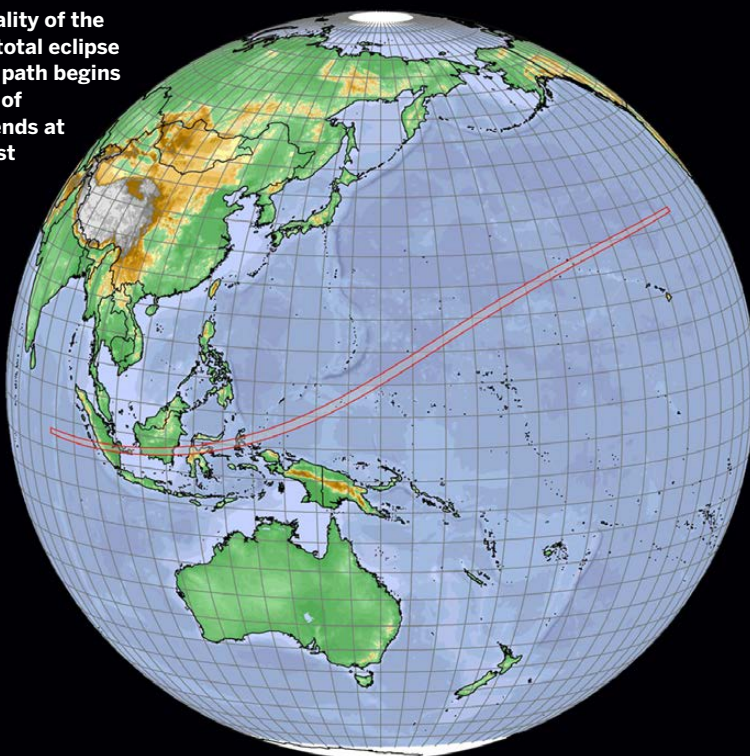
Greatest eclipse (when the distance between the Moon's shadow axis and Earth's geocenter reaches a minimum) occurs at 01:57:11 UT in the western Pacific. The central duration of totality is 4 minutes 9 seconds, the Sun's altitude is 75°, and the path width is 155 km. The remaining 7,000+ km of the path's course is across open ocean, though it narrowly misses Wake Island (eclipse magnitude 0.992).

Continuing to curve north across the vast Pacific, the umbra passes 1,100 kilometers north of the Hawaiian Islands where a partial eclipse of magnitude 0.703 is visible from Honolulu at 03:36 UT (on the evening of the 8th). The path ends about 2,400 km west of Los Angeles at 03:37 UT as the lunar shadow lifts off Earth and returns to space.

During the course of its 3 hour 21 minute trajectory, the umbra's track is approximately 14,200 kilometers long and covers 0.36% of Earth's surface area. A partial eclipse is seen within the much broader path of the Moon's penumbral shadow. The partial phases are visible across southeastern and eastern Asia, Oceania, most of Australia and the Pacific Ocean, including Hawaii and Alaska. An interactive Google map of the path of totality can be found at <http://tinyurl.com/oqjd9q4>.

The path of totality of the March 9, 2016, total eclipse of the Sun. The path begins at sunrise west of Indonesia and ends at sunset northeast of Hawaii.

[JAY ANDERSON]



## LOCAL CONTACT TIMES

### SULAWESI, INDONESIA

**Approximate viewing location:**  
Lat. 1° 08.8' S, Long. 119° 55.3' E  
Elevation: 50 meters (approx.)

**1ST CONTACT** (eclipse begins):  
07:27:43, Sun's altitude: 19°

**2ND CONTACT** (totality begins):  
08:37:18.7, Sun's altitude: 36.6°

**3RD CONTACT** (totality ends):  
08:40:02.6, Sun's altitude: 37.3°

**4TH CONTACT** (eclipse ends):  
10:00:24, Sun's altitude: 57°

### **DURATION OF TOTALITY:**

2 minutes 43.9 seconds

All times are in  
WITA – Central Indonesian Time.

## CLIMATE DISCUSSION FOR ECLIPSE 2016

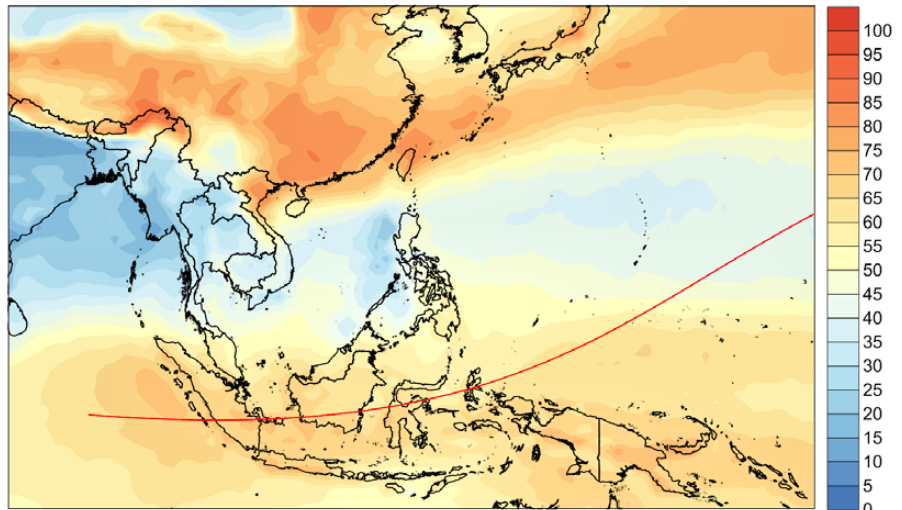
This eclipse begins in the equatorial Indian Ocean west of Sumatra (Sumatra) and arcs northward to a sunset end in the high tropical latitudes north of Hawaii (*previous page*). The shadow passage begins at sunrise in the hot equatorial climate of Indonesia, under the influence of the *Intertropical Convergence Zone (ITCZ)* and at the latter stages of the rainy monsoon season. Maximum eclipse comes in the mid-tropics, beneath the semi-permanent anticyclones (highs) that endow those latitudes with sunny skies and dry weather. In the afternoon of its passage, it moves into the trade wind circulation north of Hawaii, bringing a modest increase in cloudiness.

Except for a few tiny and difficult-to-reach islands in Micronesia, land-based sites are restricted to Indonesia, primarily in Sumatra and on the islands of Kalimantan (Borneo), Sulawesi (Celebes), and North Maluku (Molucca). Both Sumatra and Sulawesi possess significant mountain and highland regions. The track across Kalimantan lies across the lower and flatter southern parts of the island, while the Maluku Islands have a rough but lower-level range of hills.

Indonesian climate is dictated by its geographical position straddling the equator and affected by the annual movement north and south of the ITCZ. This belt of low pressure is where the easterly trade-wind circulations from the Northern and Southern Hemispheres meet, squeezing the lower levels of the atmosphere upward. The year-round equatorial heat and humidity over Indonesia and elsewhere in the tropics forms an atmosphere that is barely stable, ready to turn into convective clouds with the slightest disruption. Any instability brought about by the convergence of the ITCZ winds is translated into a belt of frequent convective cloudiness and precipitation.

In the islands of the Indonesian archipelago, the ITCZ is only part of the story, as the daily heating of the land, sea and land-breeze circulations, and the interaction of winds with topography also promote instability and give rise to complex cloud patterns. The heaviest cloud and precipitation are found over Sumatra and Kalimantan, with lesser amounts over Sulawesi and the Maluku Islands.

TravelQuest's preferred location on Sulawesi benefits from the lower cloud cover in the eastern part of the archipelago, where the eclipse track is moving into a drier and more stable air mass. After visiting the area, the TQ scouting party picked a site where the prevailing airflow will descend from the surrounding mountains, drying the air column and



**Average daytime cloud cover in 10ths along the eclipse track, derived from 19 years of satellite imagery. The ITCZ shows as a belt of heavy cloudiness stretching eastward across the Pacific from the Indonesian archipelago.** [SOURCE: NOAA SATELLITE ACTIVE ARCHIVE. ILLUSTRATION: JAY ANDERSON.]

suppressing the formation of clouds. The time of the eclipse in the cool morning hours (when clouds are barely beginning to develop), and the decline in temperature that comes with the approach of the Moon's shadow, will ensure that totality should arrive with the very best weather prospects.

## THE SAROS 130 SEQUENCE

This is the 52nd eclipse of Saros 130 (Espenak and Meeus, 2006). The series began with a partial eclipse on Aug. 20, 1096. After 21 partials and nearly three centuries, the first umbral eclipse occurred on Mar. 25, 1475 — a 2-minute total eclipse through the South Pacific. During the next 1½ centuries, the umbral duration increased as each path shifted progressively northward. The greatest umbral duration of Saros 130 occurred during the total eclipse of July 11, 1619. Unfortunately, the 6 minute 41 second totality was visible only from equatorial Africa, which was virtually inaccessible to astronomers of the day.

A notable member of the series occurred on Dec. 12, 1871. Spectroscopic observations of totality, made by French astronomer Pierre Jules Janssen, led him to propose that the corona is a physical part of the Sun and is composed of both hot gases and cooler particles. The most recent member occurred on Feb. 26, 1998; the next occurs on Mar. 20, 2034.

The length of totality drops as Saros 130 continues to produce total eclipses. The last umbral eclipse of the series occurs on July 18, 2232, and lasts a maximum of 1 minute 14 seconds. The final nine eclipses of the series are all partials in the northern hemisphere polar regions, ending with the partial eclipse of Oct. 25, 2394.

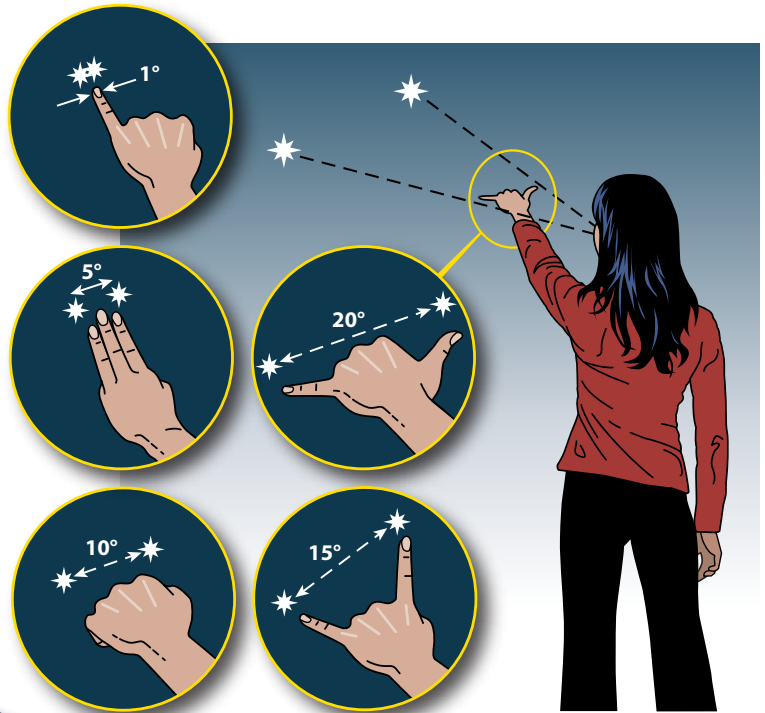
---

*This article consists of adapted content, including eclipse predictions by Fred Espenak [[EclipseWise.com](http://EclipseWise.com)] and climate commentary by meteorologist Jay Anderson [[eclipser.ca](http://eclipser.ca)].*

# THE SKY AT TOTALITY

THE ECLIPSED SUN will be  $37^\circ$  high and very slightly south of east at totality. Brilliant *Venus* (magnitude -3.9) will be easy to spot before totality, sitting some  $55^\circ$  above the east-southeast horizon and  $23^\circ$  above and just to the right of the Sun. Once totality strikes, *Mercury* (mag. -0.6) should pop into view roughly halfway between Venus and the eclipsed Sun. If you dare to turn your back to totality, you might be able to spot *Saturn* (magnitude 0.5) and reddish *Mars* (magnitude 0.1) some  $45^\circ$  and  $31^\circ$  respectively above the west-southwest horizon. Jupiter is below the horizon.

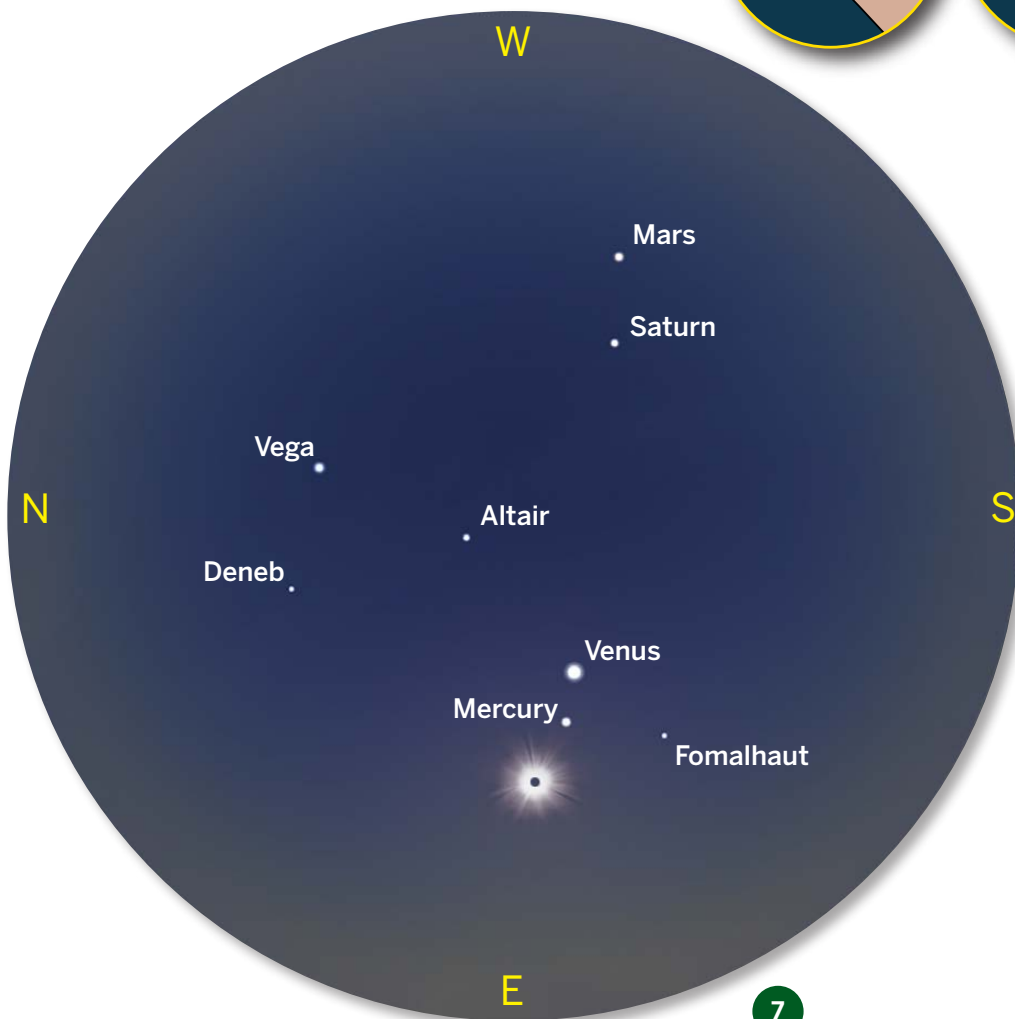
Totality is brief, so don't spend a lot of time looking for stars. If you spot something about  $25^\circ$  to the right of the Sun, that's *Fomalhaut* (magnitude 1.2). And if your eye catches two or three stars toward the north and almost overhead, they're probably the stars of the Summer Triangle: *Deneb* (mag. 1.3), *Vega* (mag. 0.0), and *Altair* (mag 0.8).



Above: By extending your hand in front of you at arm's length, you can use your fingers, fist, and open hand to roughly measure angular distances in the sky.

[STEVEN SIMPSON]

Left: The planets and bright stars visible during totality. While Venus should be obvious, even a slight haze in the sky may hide the other celestial objects.



# SOLAR FILTER SUPPLIERS

**B**ECAUSE IT IS NEVER SAFE to look directly at the unfiltered Sun except during the total phase of a total solar eclipse, special eclipse viewers will be provided to all TravelQuest tour participants. These viewers *must* be worn whenever you wish to look at the Sun with your eyes (they easily fit over the front of regular eyeglasses).

Those planning to observe the partial phases of the eclipse through binoculars or a telescope, or capture still or video images with a camera, will need to purchase appropriate solar filters in advance. You'll encounter three types of filters: metal on glass (usually the most durable and expensive), aluminized polyester (frequently referred to as aluminized Mylar), and black polymer. Some render the Sun white, while others impart a yellow, orange, or blue tint. All are effective, so choose the type that best suits your budget and preference.

The most popular solar-filter material noted here is Baader AstroSolar Safety Film, a metal-coated resin that can be used for both visual and photographic solar observations. Please be sure to bring with you any filters needed for your optics — TravelQuest may not be able to provide solar-filter material to travelers on-site.

Here is a brief list of solar-filter suppliers and what they offer. Solar filters for telescopes are also available from many telescope retailers. Some pre-made filters for binoculars and camera lenses are available, but you may find you have to purchase solar-filter material and construct your own filter(s) to fit the lenses of your binos or camera.

## HYDROGEN-ALPHA OBSERVING

Another option is to watch the partial phases in the red light of hydrogen using a hydrogen-alpha (H-alpha) filter. In hydrogen light you can see brilliant *flares* (sudden eruptions in the solar atmosphere), dramatic *prominences* (streamers of gas that erupt from the solar limb), and a mottled solar disk containing dark *sunspots* surrounded by bright regions called *plages*.

Changes can often be observed during just a few minutes, and these sights make an interesting background to the passage of the lunar disk across the Sun's face. The only drawback: H-alpha equipment can be expensive. Here are four suppliers of H-alpha equipment, which is also available from some telescope retailers.



All TravelQuest eclipse travelers are provided with eclipse viewers that use safe, black polymer solar filter material. [TQ/PAUL DEANS]

## Solar Filter Suppliers

### Altair Astro (UK)

0044 (0) 1263 731 505  
[www.altairastro.com](http://www.altairastro.com)  
Filters for telescopes

### Astro-Physics (US)

(815) 282-61781513  
[www.astro-physics.com](http://www.astro-physics.com)  
Filters for telescopes & solar-filter material

### Baader Planetarium (Germany)

+49 (0) 8145-8089-0  
[www.baader-planetarium.com](http://www.baader-planetarium.com)  
Solar-filter material

### Kendrick Astro Instruments (Canada)

(800) 393-5456  
[www.kendrickastro.com](http://www.kendrickastro.com)  
Filters for telescopes & binoculars and solar-filter material

### Khan Scope Centre (Canada)

(800) 580-7160  
[www.khanscope.com](http://www.khanscope.com)  
Filters for telescopes & binoculars and solar-filter material

## H-alpha Equipment Suppliers

### Altair Astro (UK)

0044 (0) 1263 731 505  
[www.altairastro.com](http://www.altairastro.com)  
Solar telescopes & filters

### Coronado (Meade Instruments) (US)

(800) 626-3233  
[www.meade.com/products/coronado.html](http://www.meade.com/products/coronado.html)  
H-alpha solar telescopes & filters

*Inclusion of a company in these lists does not imply endorsement by TravelQuest International.*

### Orion Telescopes & Binoculars (US)

(800) 447-1001  
[www.OrionTelescopes.com](http://www.OrionTelescopes.com)  
Filters for telescopes

### Scope City (US)

(800) 235-3344  
[www.scopecity.com](http://www.scopecity.com)  
Filters for telescopes & solar-filter material

### SCS Astro (UK)

+44 (0) 1823 665510  
[www.scsastro.co.uk](http://www.scsastro.co.uk)  
Filters for telescopes & solar-filter material

### Thousand Oaks Optical (US)

(928) 692-8903  
[www.thousandoaksoptical.com](http://www.thousandoaksoptical.com)  
Filters for telescopes & binoculars, threaded camera filters, and solar-filter material

### DayStar Filters LLC (US)

(866) 680-6563  
[www.DayStarFilters.com](http://www.DayStarFilters.com)  
H-alpha solar telescopes & filters

### Lunt Solar Systems (US)

(877) 344-7348  
[www.LuntSolarSystems.com](http://www.LuntSolarSystems.com)  
H-alpha solar telescopes & filters



# TOTAL ECLIPSE 2016 BALI NEW YEAR ITINERARY

(Actual program may vary.)

## DAY 1 – WEDNESDAY, MARCH 2, 2016

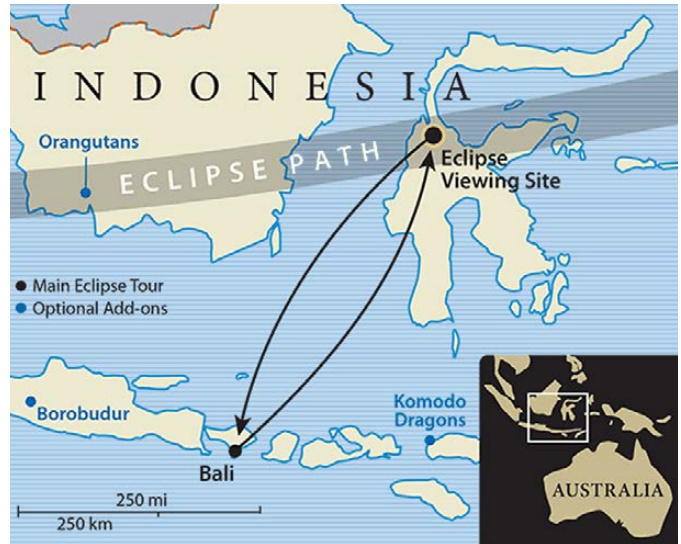
### ARRIVE BALI – VILLAGE OF UBUD

Upon arriving at Ngurah Rai International Airport on “The Island of Gods,” you’re met by a TravelQuest representative who arranges the easy transfer to your hotel accompanied by our English-speaking guide. Set among terraced rice paddies in the foothills of the Gianyar Regency, Ubud enjoys cooler temperature than Bali’s coastal regions thanks to its elevation of 200 m (650 ft) above sea level. Spend the rest of the day exploring this cultural center of Bali, then enjoy dinner at the hotel.

## DAY 2 – THU MARCH 3

### THE MANY SIDES OF UBUD

After breakfast, you’ll visit a traditional Balinese household compound to experience the local way of life, then head to Batuan Village in the district of Sukawati. With a recorded history dating back nearly one thousand years, Batuan is famed for the distinctive painting style used by its artists to depict ancient legends and tales of mystery. Among the architectural highlights is Pura Desa Batuan, a classic Balinese temple devoted to Brahma the Creator and decorated with elaborate carvings. Next stop is the impressive Agung Rai Museum of Art, opened in 1996 to house masterpieces by renowned painters from diverse cultural traditions including Raden Saleh, Lempad, Affandi, Sadali, Bonnet, Le Mayeur, and Walter Spies. After lunch we return to Ubud, where you can enjoy the balance of the day at your leisure, again followed by dinner served at the hotel.



## DAY 3 – FRI MARCH 4

### BATUR VOLCANO & EASTERN BALI

Today you’ll discover the fascinating eastern region of Bali. After a brief journey in our air-conditioned coach, you arrive at Kintamani to take in dramatic views of active Mount Batur volcano, as well as serene Lake Batur, from the rim of the giant Batur caldera, about 1,700 m (5,600 ft) above sea level. Nearby on the slopes of Mount Agung, you’re welcomed to the Mother

Temple of Besakih, the largest and most important Hindu temple in Bali. From there we carry on to Candi Dasa, a seaside town on the edge of a freshwater lagoon and home to the Tirta Gangga Water Palace, founded by the Karangasem royal family. As you stroll the gardens among tiered fountains, bathing pools, and stone sculptures of mythical creatures spouting water, enjoy stunning views of the surrounding landscape with its lush rice paddies.

## DAY 4 – SAT MARCH 5

### MELASTI RITUAL – PREPARING FOR NYEPI

Checking out of our hotel after breakfast, we’re off to meet Balinese villagers as they put the finishing touches to their *ogoh-ogoh*, giant figures of mythological demons made from wood, bamboo, paper, and other light materials that make them easy to carry – and quick to burn. Embodying spirits that disturb the course of human life, the *ogoh-ogoh* are



An *ogoh-ogoh*, a statue built for the Ngrupuk parade, which takes place on the eve of Nyepi — New Year in Bali. [TQ/PEDRO O’CONNOR]

**Sunrise at our eclipse-viewing site. According to TQ eclipse meteorologist Jay Anderson, the site is located: "where the prevailing airflow will descend from the surrounding mountains, drying the air column, and suppressing the formation of clouds."**

[TQ/PEDRO O'CONNOR]

paraded through village streets and then reduced to ashes in celebratory bonfires on the eve of Nyepi – a day of silence, fasting, meditation, and self-reflection.

Next comes the Melasti ceremony of cleansing and purification. Join thousands of worshippers in traditional dress as they form a procession to the Hindu temple carrying ceremonial idols, along with offerings to the sea and water deities who have the power to wash away the physical residue of existence. After lunch we transfer to Tanjung Benoa and your hotel for the next three nights. Relax for the rest of the day in this luxurious beachfront resort and spa, with its spacious guestrooms set amidst lush gardens and tranquil pools overlooking a golden-sand beach.

### **DAY 5 – SUN MARCH 6** **TEMPLES AND TANAH LOT SUNSET**

Spend the morning at your leisure, taking advantage of all that our seaside resort has to offer. After lunch, join us on a visit to Taman Ayun, the royal temple at Mengwi. Set in peaceful gardens at the edge of a large pond, the temple appears to be floating on the shimmering water. Also on our seaside route is one of the most venerated shrines in Bali: the temple of Tanah Lot, which sits offshore on a rocky outcrop that has been sculpted by the tides for millennia. One of the best views is at sunset from the nearby Pan Pacific Hotel, where you can sip a cocktail as the waves crash onto rocks and the temple is spectacularly silhouetted against a red and gold sky.

### **DAY 6 – MON MARCH 7** **BEDUGUL - JATILUWIH**

This morning we drive via Bedugul through Bali's central highlands at an altitude of more than 700 m (2,300 ft). Our destination is Jatiluwih, famed for its magnificent terraced rice paddies cascading down the slopes of Mount Batukaru to the sea. Designated as a UNESCO Cultural Landscape, the Jatiluwih rice fields use the *subak* irrigation method that has been passed down from generation to generation since the 9th century. From here our journey takes us into the Tabanan Regency to the temple of Ulun Danu, on a plateau by the shores of Lake Bratan, which is paired with nearby Mount Beratan as divine embodiments of fertility and prosperity. After lunch, return to the hotel for a relaxing afternoon and evening at your leisure.



### **DAY 7 – TUE MARCH 8** **BALI – SULAWESI**

After breakfast, transfer to the airport for your flight to Sulawesi (formerly known as Celebes). Situated between Kalimantan (Borneo) and Maluku, the world's eleventh-largest island is renowned for its spices. After a quick trip to our hotel via air-conditioned coach, you're free to roam and take in the exotic surroundings. Join us this evening for dinner, followed by a weather briefing and a preview of the total solar eclipse from our TravelQuest astronomer.

### **DAY 8 – WED MARCH 9** **SULAWESI TOTAL SOLAR ECLIPSE**

Depart before sunrise to reach our carefully selected viewing site, where you'll stand in the Moon's shadow for nearly 2 minutes and 45 seconds of totality. After the big event, you'll return to the hotel for lunch, followed by an afternoon of leisure and reflection.

### **DAY 9 – THU MARCH 10** **SULAWESI – BALI**

Today we fly back to Bali, where you can look forward to an afternoon of further exploring or simply unwind at the hotel. In the evening, join the group for a special dinner celebrating our unique eclipse experience.

### **DAY 10 – FRI MARCH 11** **DEPART BALI OR JOIN OPTIONAL ADD-ON PROGRAMS**

Enjoy breakfast at the hotel and then, depending on your program, either transfer to Bali's Ngurah Rai International Airport for your journey onward, or continue with your add-on program to see the Komodo dragons on the island of Flores, or combine your dragon adventure with a journey to encounter orangutans and proboscis monkeys in central Kalimantan.

# UPCOMING SOLAR ECLIPSES

## 2016 September 01

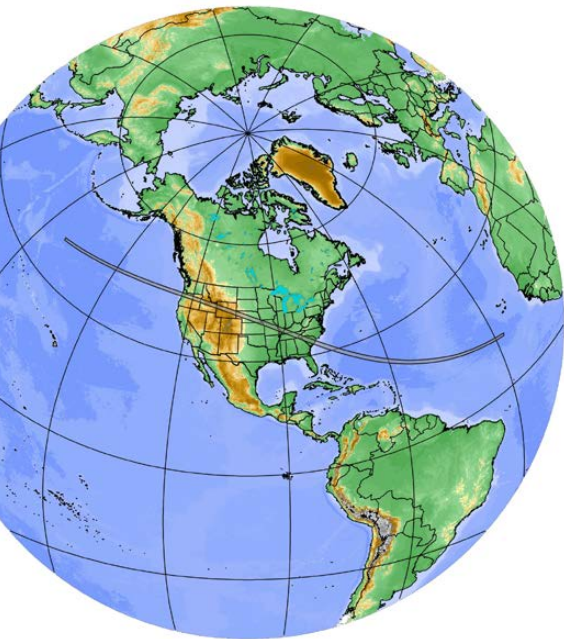
*Annular* (3m 06s)  
Atlantic, Central Africa,  
Madagascar, Indian Ocean.

## 2017 February 26

*Annular* (0m 44s)  
Chile, Argentina,  
south Atlantic, Africa.

## 2017 August 21

**Total** (2m 40s)  
Pacific, northwest to  
southeast US, Atlantic Ocean.



**The path of August 21, 2017, total eclipse of the Sun. Totality crosses the continental United States from Oregon in the west to South Carolina in the east.**

[JAY ANDERSON]

## 2019 July 02

**Total** (4m 33s)  
South Pacific, Chile,  
Argentina.

## 2019 December 26

*Annular* (3m 39s)  
Saudi Arabia, south India,  
Sumatra, Borneo.

## 2020 June 21

*Annular* (0m 38s)  
Central Africa, south Asia,  
China, Pacific.

## 2020 December 14

**Total** (2m 10s)  
South Pacific, Chile,  
Argentina, south Atlantic.

## 2021 June 10

*Annular* (3m 51s)  
Northern Canada,  
Greenland, Russia.

## 2021 December 04

**Total** (1m 54s)  
Antarctica.

## 2023 April 20

*Annular/Total* (1m 16s)  
Western Australia,  
East Timor, Papua.

## 2023 October 14

*Annular* (5m 17s)  
United States, Central  
America, Columbia,  
Brazil.



**Totality** [RICK FIENBERG]



**Annularity** [JAY ANDERSON]

TRAVELQUEST  
international

332 N Rush Street  
Prescott, Arizona 86301 USA  
1 928 445 7754  
1 800 830 1998  
[TravelQuestTours.com](http://TravelQuestTours.com)