TOTAL SOLAR ECLIPSE

Chile and the Skies of the Southern Hemisphere

June 28–July 9, 2019

WITH Anneila Sargent
Ira S. Bowen Professor of Astronomy, Emeritus, at Caltech
Join fellow Associates and faculty trip leader, Anneila Sargent, Caltech’s Ira S. Bowen Professor of Astronomy, Emeritus, on an exclusive journey to the Chilean highlands to witness a spectacular total solar eclipse on July 2, 2019, at a unique location in the north of Chile, home to world-class astronomical observatories.

Go behind the scenes to enjoy special access to state-of-the-art observatories including the Atacama Large Millimeter/submillimeter Array (ALMA), the largest astronomical project in existence; Paranal, home to the Very Large Telescope; Las Campanas, home to two 6.5-meter telescopes and the future site of the Giant Magellan Telescope; and Gemini South Observatory, home to an 8.1-meter telescope. This unique journey also highlights the region’s natural beauty beginning with a tour of Santiago and a day in the lovely Casablanca Valley, where we will savor wines from some of Chile’s renowned coastal wineries. Explore La Serena with a visit to the Elqui Valley, a pisco distillery, and stargazing with local astronomers at a public observatory. We will conclude the adventure in the Atacama Desert and discover some of the most extraordinary landscapes of our planet—volcanoes, evaporated salt lakes, lagoons, hot springs, and a host of animal life.

Space for this program has already filled quickly, so please call today to secure your place on a unique tour to witness a spectacular total solar eclipse as well as the remarkable observatories and natural history of northern Chile.

Sincerely,

Catherine Reeves
Executive Director
Anneila Sargent is the Ira S. Bowen Professor of Astronomy, Emeritus, at Caltech. A native of Scotland, she earned her BSc in Physics at the University of Edinburgh and her PhD from Caltech in 1977. Between 2007 and 2015, she served as Caltech’s Vice President for Student Affairs. Her research has largely concentrated on understanding how stars and other planetary systems form and evolve. To this end, she has been deeply involved in a number of millimeter-wave telescope construction projects. Between 1996 and 2007 she was Director of Caltech’s Owens Valley Radio Observatory and then founding Director of the Combined Array for Millimeter-wave Astronomy (CARMA), the U.S. precursor to the Atacama Large Millimeter-submillimeter Array (ALMA). Sargent has been President of the American Astronomical Society and is a Fellow of the American Academy of Arts and Sciences and of the Royal Society of Edinburgh. In addition to service on numerous national and international advisory boards, she has chaired the international board of ALMA twice. She was named Jan H. Oort Professor at the University of Leiden for 2005, awarded an Honorary DSc degree by the University of Edinburgh in 2008, and since 2010 has been a member of the U.S. National Science Board, a presidential appointment.
ITINERARY
B=BREAKFAST, L=LUNCH AND D=DINNER

DAY 1 FRIDAY, JUNE 28
U.S. ✴ Santiago
Depart from your home city for Santiago, the capital of Chile.
OVERNIGHT FLIGHT (MEALS ALOFT)

DAY 2 SATURDAY, JUNE 29
Santiago
Arrive this morning in Santiago and transfer to our five-star hotel located in one of the most exclusive quarters of Santiago. An afternoon tour of Santiago will introduce us to this city at the foot of the Andes and explore its renowned Pre-Columbian museum. This evening gather for an orientation and welcome dinner. RITZ CARLTON SANTIAGO (D)

DAY 3 SUNDAY, JUNE 30
Santiago ✴ Casablanca Valley ✴ La Serena
Depart this morning for the Casablanca Valley, situated on the coastal plain between Santiago and Valparaiso, which is Chile’s fastest growing wine region. Tour the Kingston Family Vineyard and learn how this winery, founded and owned by five generations of Americans, evolved into one of Chile’s hottest, award-winning boutique wineries. Take an early evening group flight to La Serena, the site of our eclipse viewing and some of the largest telescopes in the world. La Serena is a port city and the country’s second oldest, after Santiago. The city is known for its long beaches, like El Faro with its landmark Faro Monumental lighthouse, and its colonial and neo-colonial architecture.
HOTEL CLUB LA SERENA (B, L, D)

DAY 4 MONDAY, JULY 1
La Serena ✴ Las Campanas Observatory
Today travel by motor coach north of La Serena to Las Campanas Observatory in the Chilian Andes. Take a day-long tour of the Magellan Project Site located here. Currently, there are two 6.5-meter Magellan optical telescopes housed on the ridge. Las Campanas will also be home to the future Giant Magellan Telescope, one of the few super giant earth-based telescopes, and it promises to revolutionize our view and understanding of the universe. Las Campanas Peak has an altitude of over 8,500 feet and is almost completely barren of vegetation due to lack of rainfall. The combination of clear nights, altitude, weather, and vegetation make Las Campanas an ideal site for the Giant Magellan Telescope. After our tour of the observatory, we’ll have a picnic lunch in the desert. Return to the hotel late in the day, then enjoy a group dinner.
HOTEL CLUB LA SERENA (B, PICNIC L, D)

DAY 5 TUESDAY, JULY 2
La Serena ✴ Eclipse Day
We’ll transfer outside La Serena by motor coach to the eclipse viewing site in Vicuña, which is directly along the path of totality. The area is dominated by a mountainous backdrop and extensive plains on the valley floor, where high-quality grapes for pisco are grown along with other fruits and vegetables. Late in the day, gather for your eclipse viewing party. Afterwards, return to the hotel.
HOTEL CLUB LA SERENA (B, L, D)

DAY 6 WEDNESDAY, JULY 3
La Serena ✴ Gemini South Observatory ✴ Antofagasta
This morning visit the Gemini South Telescope, an 8.1-meter telescope located at an elevation of 8,900 feet above sea level in a region with some of the clearest skies in the world and surrounded by the snow-capped Andes. The Gemini South telescope houses a suite of modern instruments that offer superb performance in the optical and near-infrared, and employ sophisticated adaptive optics technology to compensate for the blurring effects of the Earth’s atmosphere. Gemini is a world-leader in wide-field adaptive optics assisted infrared imaging, and has recently commissioned the Gemini Planet Imager, an instrument that allows researchers to directly image and analyze exoplanets that are a millionth as bright as the host star around which they orbit. Take a late afternoon flight to Antofagasta.
Support Facility (located at 9,514 feet) including the control room, laboratories, an antenna transporter, and possibly antenna under maintenance. There will be an opportunity to visit the antenna installation. This visit will be optional and require participants to travel from the Operations Support Facility to the Chinantec Plateau located at 16,000 feet. Participants who wish to make this visit will need to be in excellent health. A medical release form (signed by your physician) will be mandatory. Additional information regarding the status of the antenna installation visit and the medical release form will be included in your pre-tour documents. The remainder of this day is at leisure for independent exploration.

TIERRA ATACAMA HOTEL (B, L, D)

**DAY 7 THURSDAY, JULY 4**

**Antofagasta ★ Paranal Observatory**

Depart by motor coach for an afternoon visit to Paranal Observatory, home of the ‘Very Large Telescope’ often described as the world’s largest. Located atop Cerro Paranal in the Atacama Desert, this mountain is a prime spot due to its excellent atmospheric conditions and remote location. It has four telescopes of 8.2-meters in diameter. The Extremely Large Telescope (ELT), the world’s largest optical/near-infrared extremely large telescope, is now under construction on the nearby peak of Cerro Armazones 12.4 miles east of Paranal and will share some of the observatory’s base facilities.

NH ANTOFAGASTA (B, L, D)

**DAY 8 FRIDAY, JULY 5**

**Antofagasta ★ San Pedro de Atacama**

This morning we’ll transfer by motor coach to San Pedro de Atacama for a three-night stay. After nightfall, we travel a short distance from town to the San Pedro de Atacama Celestial Explorations (SPACE), a privately-owned complex of telescopes designed to thrill you with views of the southern sky. We’ll return to the hotel late—but happy!

TIERRA ATACAMA HOTEL (B, L, D)

**DAY 9 SATURDAY, JULY 6**

**Atacama ★ Miscanti and Miñiques ★ Atacama Salt Flats**

Visit the high plateau lagoons of Miscanti-Miñiques. Look for vicuñas, viscachas, and other wildlife of the area. Later we’ll explore the immense Atacama Salt Flats, known locally as the Salar de Atacama including the Chaxa Lagoon, the entry point to the National Flamingo Reserve. The reserve is home to a variety of birds, including the Andean flamingo, Chilean flamingo, horned coot, silvery grebe, Andean gull, and greenish yellow finch.

TIERRA ATACAMA HOTEL (B, L, D)

**DAY 10 SUNDAY, JULY 7**

**San Pedro de Atacama ★ ALMA Visit**

This morning visit the largest astronomical project in existence, the Atacama Large Millimeter/submillimeter Array, or ALMA. Teams from North America, East Asia, and Europe merged projects to develop this gigantic array. ALMA is opening a new window on celestial origins, capturing never-before-seen details about the very first stars and galaxies in the Universe, probing the heart of our Milky Way Galaxy, and directly imaging the formation of planets. Thanks to our study leader, Annela Sargent, we will gain exclusive access at ALMA and visit the Operations Support Facility (located at 9,514 feet) including the control room, laboratories, an antenna transporter, and possibly antenna under maintenance. There will be an opportunity to visit the antenna installation. This visit will be optional and require participants to travel from the Operations Support Facility to the Chinantec Plateau located at 16,000 feet. Participants who wish to make this visit will need to be in excellent health. A medical release form (signed by your physician) will be mandatory. Additional information regarding the status of the antenna installation visit and the medical release form will be included in your pre-tour documents. The remainder of this day is at leisure for independent exploration.

TIERRA ATACAMA HOTEL (B, L, D)

**DAY 11 MONDAY, JULY 8**

**San Pedro de Atacama ★ Santiago ★ U.S.**

This morning is at leisure to enjoy San Pedro de Atacama and the desert. In the afternoon we’ll depart on a group flight to Comodoro Arturo Merino Benitez International Airport Santiago. We’ll enjoy a festive farewell dinner near the airport prior to transferring to connecting evening flights home.

(B, D)

**DAY 12 TUESDAY, JULY 9**

**Arrive to the U.S.**

Overnight flights arrive in the U.S.
WHAT TO EXPECT
This exclusive expedition is designed for Caltech Associates who are interested in learning about astronomy and experiencing a total solar eclipse as well as the wildlife, geology, and superb natural landscapes of northern Chile. Walks will be from one to two miles and at times over rocky, dusty, and uneven terrain and at high elevations. The pace of the walks will be leisurely. Some of the excursions in the Atacama Desert can reach (for a short time) altitudes of 14,000 feet. The visit to the Paranal Observatory is at approximately 8,645 feet, Las Campanas Observatory is at approximately 7,810 feet and Gemini South Observatory is at 8,900 feet. The Atacama Large Millimeter/submillimeter Array (ALMA) Operations Support Facility is located at an altitude of 9,514 feet. An optional visit to the antenna installation at ALMA will be at 16,000 feet for which a medical release will be required. All the hotels are located at what are considered comfortable elevations. Roadways can be narrow with steep ascents/descents and at times rocky, unpaved, and dusty. Drives can be up to four hours depending on the excursion. Clothing that can be layered, as well as sunblock, sun hat, sunglasses, and comfortable walking shoes with a sturdy tread will be essential on this trip. Eclipse viewing glasses will be provided for the Eclipse Day. To enjoy this experience, participants must be in good physical and mental health, and be able to keep up with the pace of the group. Program participants requiring extraordinary assistance must be accompanied by someone who can and will provide all required assistance. We describe this trip as relatively active. Travel is by jet aircraft and motor coach.

PROGRAM COST INCLUDES
Study leader’s lectures and discussions • Accommodations and meals as specified in the itinerary • Wine with included dinners and farewell lunch • Open bar and wine with lunch and dinner while at Tierra Atacama • Wine tasting and lunch at Kingston Family Vineyards • All land transportation • Three in-tour flights from: Santiago to La Serena, La Serena to Antofagasta, Calama to Santiago, provided increases in the in-tour airfare after the initial pricing of this program are not included (see below) • Professional guides and tour director throughout • English speaking Tour Director and guides • Gratuities to local guides and drivers • Airport transfers for group flights • Domestic airport departure taxes • Entrance fees • Eclipse viewing site • Eclipse viewing glasses • Baggage handling • Pre-departure information.

PROGRAM COST DOES NOT INCLUDE
U.S. domestic and international airfare in and out of Santiago • Passport and visa fees • Room service • Alcoholic beverages aside from wine with included meals and open bar at the Tierra Atacama hotel • Meals not indicated in the itinerary • Personal items such as laundry, telephone/email/fax charges, and other items of a personal nature • Any other items not specifically mentioned as included • Trip insurance • Any increases in the in-tour airfare included as part of the program cost, security or fuel surcharges, imposed after the initial pricing of this program are not included.

PROGRAM COST
Land Program (Per person, double occupancy)
Standard Room (in La Serena)................................................... $11,995
Suite (in La Serena) ................................................................... $12,295
Single Supplement (Limited availability) .................................. $2,500

SAMPLE COACH AIRFARE
Los Angeles/Santiago/Los Angeles............................................ $1,100
(As of January 2018 and subject to change)
RESERVATIONS, DEPOSITS, & FINAL PAYMENT: To reserve a space on this program, a $1,500 deposit is required per person. The first deposit may be made by check, payable to Royal Adventures, or with a major credit card. A second deposit of $2,500 per person payable by check is required and due on November 1, 2018. Please mail, fax, or email authorization of a credit card payment or a check payable to “Royal Adventures” to 9 Crow Canyon Court, Suite 205, San Ramon, CA 94583, fax: 925-8555-1909 or email: info@royaladventures.com. The final payment, payable by check, is due February 25, 2019, 120 days prior to departure. Royal Adventures handles all invoicing. CST #2009579-40.

CANCELLATIONS & REFUNDS: Notification of cancellation must be received in writing by Royal Adventures from the participant. Should you have to cancel, the following terms will apply:
- Cancellations received within 14 days of booking will receive a full refund.
- Reservation cancellations received up to 120 days prior to departure will be assessed a cancellation fee equal to the amount of all deposits paid to date.
- Cancellations received within 120 days prior to departure are subject to 100% penalty for all deposits and payments, regardless of booking date.
- There are no refunds for unused meals, accommodations, or other trip features.

CHANGES IN ITINERARY: The itinerary is subject to change at the discretion of Caltech Associates and the tour operator, Royal Adventures.

INSURANCE: We highly recommend the purchase of trip insurance to cover unexpected trip interruptions, cancellations, curtailments, and evacuation. An application for trip cancellation insurance will be provided upon confirmation. The pre-existing medical conditions exclusion is waived if the insurance is purchased within 21 days of initial deposit. Neither Caltech Associates nor our tour operator, Royal Adventures, including their representatives, employees and agents, will take responsibility for any costs, losses incurred or suffered by the guest, or guests’ dependents or traveling companions, with regards to, but not limited to, passenger cancellation of a reservation, emergency evacuation expenses, medical expenses repatriation expenses, damage/theft/loss of personal baggage, money and goods. Nor do they accept liability for any airline cancellation penalty incurred by the purchase of a non-refundable airline ticket or other expenses incurred by tour participants in preparing for the tour.

RESPONSIBILITY: Royal Adventures, its owners and employees act only as agents for the various independent suppliers and contractors providing transportation, hotel accommodations, restaurants, and other services connected with this tour. Such travel and services are subject to the terms and conditions under which such accommodations, services, and transportation are offered or provided; and Caltech and Royal Adventures and their respective, employees, agents, representatives, and assigns accept no liability therefore. Caltech and Royal Adventures, assume no liability for any injury, damage, loss, accident, delay, or other irregularity which may be caused by the defect of any aircraft or vehicle on the negligence or default of any company or person engaged in carrying out or performing any of the services involved. Additionally, responsibility is not accepted for losses, injury, damages, or expenses of any kind due to illness, altitude sickness, weather, strikes, local laws, hostilities, wars, terrorist acts, acts of nature, insect or animal bites or other such causes. All services and accommodations are subject to the laws of the country in which they are provided. Caltech and Royal Adventures reserve the right to make changes in the published itinerary whenever, in their sole judgment, conditions warrant, or if they deem it necessary for the comfort, convenience or safety of the tour participants. They reserve the right to withdraw this tour without penalty. The right is also reserved to decline to accept or retain any person as a member of the tour, or to substitute another qualified leader or special guest. Baggage and personal effects are the sole responsibility of the owners at all times. The price of the program is given in good faith based on current tariffs and rates and is subject to change. Any tariff, exchange rate, in-tour airfare or fuel increases will be passed onto participants. Because the total solar eclipse will be weather dependent, there is always a chance that passengers will not be able to view the eclipse during a short period of time. Neither Royal Adventures nor Caltech make any guarantees as to the viewing of the total solar eclipse. As part of the consideration and right to participate in this tour, each participant will be asked to sign a liability release.

DISCLAIMER: Every reasonable effort has been made to ensure the accuracy of information presented in this publication. Caltech is not responsible for errors in or damages resulting from use of the information contained herein. Information contained in this document is subject to change.

QUESTIONS: Please call 925-820-6260 or 1-800-453-4754. Email info@royaladventures.com.


RESERVATION FORM

TOTAL SOLAR ECLIPSE
Chile and the Skies of the Southern Hemisphere
June 28–July 9, 2019

Please complete the form below.

NAME AS ON PASSPORT    DATE OF BIRTH
NAME AS ON PASSPORT    DATE OF BIRTH

CONTACT INFORMATION

ADDRESS

CITY/STATE/ZIP CODE

HOME PHONE    CELL PHONE

E-MAIL(S)

PAYMENT OPTIONS
Deposit $1,500 per person for ______ person/s in a ☐ Standard Room or ☐ Suite in La Serena.

There will be a 2nd deposit due in the amount of $2,500 per person on November 1, 2018, payable by check only. Final payment is due February 25, 2019, by check only payable to “Royal Adventures.”

☐ Enclosed is my deposit check made payable to “Royal Adventures”; OR

☐ Please charge my deposit for a total amount of $______ to:
  ☐ AMEX  ☐ Visa  ☐ MasterCard  ☐ Discover Card

CARD #

EXP. DATE    SEC. CODE

ACCOMMODATIONS
☐ I will require single accommodations (limited availability)
☐ I will share accommodations with: ______

I/We have carefully read the Terms and Conditions and Responsibility sections of this brochure and agree to their terms on behalf of myself and the members of my party named above.

SIGNATURE    DATE

SIGNATURE    DATE
Observe the 2019 Total Solar Eclipse at a special viewing site outside La Serena, Chile.

GO behind-the-scenes to some of the most advanced and largest observatories in the world with Caltech’s renowned astronomer Anneila Sargent and gain special entry to the Atacama Large Millimeter/submillimeter Array (ALMA).

Explore dazzling night skies with large amateur telescopes in the Atacama Desert.

Enjoy the dramatic scenery of the Andean north with its unusual wildlife, including the Andean flamingo, vicuña, and vicacha.

Visit the Elqui Valley, an oasis in a very arid landscape.

Spend a day in Chile’s wine country, and explore Santiago with a visit to the premier Pre-Columbian Museum of Art.

CHILE AND THE SKIES

Chile and the Skies of the Southern Hemisphere

June 28–July 9, 2019

HIGHLIGHTS

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