Dear Friends:

We invite you to join us as we explore the great beauty of Alaska in winter, and see the famed Aurora Borealis or Northern Lights, the greatest light show on Earth!

We will gather in Anchorage, Alaska, to begin our adventure, situated at the head of the Cook Strait and at the foot of the Chugach Mountains, whose peaks define the coast of Alaska. We will drive through spectacular mountains to Seward, near Kenai Fjords National Park. Here we will visit the Alaska Sea Life Center to see sea otters, seabirds, and a profusion of Alaska marine life. We will look at Alaska’s major land mammals including grizzlies, moose, and muskox.

The following day we will explore historic Talkeetna and then take the classic train journey from Talkeetna to Fairbanks, passing North America’s tallest and most awesome mountain, 20,320-foot Mt. McKinley en route.

We will arrive in Fairbanks to enjoy the annual winter World of Ice Art Festival and learn about the Aurora Borealis at a scientific institute as we discover the delights of Fairbanks and the night skies.

Our visits will include the Geophysical Institute at the University of Alaska, Fairbanks, which was established to study the Aurora and its effects. These studies have continued from the International Geophysical Year in 1957-58 to the present time and are conducted in both polar areas. They have added greatly to understanding the unique interactions between the Sun and Earth in the polar regions.

In Fairbanks we will go to the very best locations in the evening to look at the Aurora Borealis: Mt. Aurora, Creamer’s Field, and the new Aurora-viewing facility at Alpengrest Observatory. In these remote locations, we will continue to learn about the Aurora and enjoy hospitality in rustic lodges while viewing the Aurora.

You will have afternoons to discover other delights of this snowy wonderland. We will see sled dogs and learn about the art of mushing, and the local Curling Club will demonstrate this popular winter sport. We will also visit the Poker Flat Research Range which launches rockets to study the Aurora Borealis.

Leading this expedition will be popular Betchart naturalist Justin Gibson. Joining him will be a representative of The Planetary Society.

We invite travelers with an appetite for adventure and discovery to explore the day and night winter wonderland of our 49th state this winter!

Sincerely,

Bill Nye
The Science Guy®
CEO

The Planetary Society
Day 1  Home to Anchorage
Expedition members fly from their nearest gateway city to Anchorage, Alaska. Transfer on your own to our Hotel (2 nights). Afternoon at leisure, or visit the Anchorage Museum of History and Art for a fascinating introduction to the people and wildlife of Alaska. Welcome social, orientation, and dinner. (D)

Day 2  Seward & Resurrection Bay
Today we will travel south through the Chugach National Forest to the fishing village of Seward adjacent to Kenai Fjords National Park. Seward is named for U.S. Secretary of State, William Seward, who convinced Congress to buy Alaska from Russia in 1867 for less than 2 cents per acre. Here, we will explore the excellent Alaska Sea Life Center. We will see much of the marine life of the North Pacific including seabirds, sea lions, bald eagles, and more! Afternoon return to Anchorage via the Alaska Wildlife Conservation Center. (B)

Day 3  Talkeetna to Fairbanks by Train
Depart for Talkeetna, a true Alaskan village. Talkeetna inspired the town depicted in the TV series "Northern Exposure" and is almost as quirky. We will explore Talkeetna, visit shops, and the Museum. Then we will board the famous Alaska Railroad for a scenic journey from Talkeetna to Fairbanks, situated in the interior of this vast state. The rail trip will take about nine hours, with stops along the way to allow locals to get to and from their homes when snow blocks many of the smaller roads. In winter, the views of Mt. McKinley, at 20,320 feet, can be outstanding with clear skies. The train has a dining car for meals. Arrive in Fairbanks and transfer to the Alpine Lodge (4 nights). (B)

Day 4  Geophysical Institute, University of Alaska
This morning we will enjoy an introduction to the Aurora Borealis at the Geophysical Institute, University of Alaska, Fairbanks. The Institute has a long history of Aurora research that continues today. We will learn about the different types of Auroras, the colors, movements, and current research. Sound at different wavelengths is also emitted by Auroras, but whether a human can hear the sounds has long been debated.

Later in the day, we will visit the Fairbanks famed World of Ice Art Festival. Here, tantalizing images of moose, swans, and other fanciful works of imagination have been carved from massive blocks of ice and illuminated by colored lights to enhance the effects of size and realism.

Following dinner on your own, we will drive to the wildlife refuge, Creamer’s Field, to be joined by local star gazers to view the night sky, and the Aurora Borealis. (B)

Day 5  Poker Flat & Mt. Aurora
This morning we will have a late breakfast and then enjoy a late morning lecture. After lunch we will visit the Trans-Alaska Pipeline, the 800-mile-long pipe that carries crude oil from Prudhoe Bay to Valdez for shipment by enormous oil tankers to the “lower 48.” We will continue northeast of
Fairbanks through rounded, snow-covered schist hills which were a focus of gold mining at the turn of the century. Millions of ounces of gold were taken from this region over a period of 60 years.

We then visit the Poker Flat Research Range. Poker Flat is the world’s only university-owned and operated rocket range. The range has been in operation since 1968 and fires rockets to study the Aurora Borealis and do other atmospheric research. The facility houses a geophysical observatory, telemetry receiving stations, and rocket assembly. We continue to Mt. Aurora for a lodge dinner and evening Aurora viewing. Late return to our hotel. (B,D)

Day 6  Sled Dogs, Ice Festival, and Aurora Borealis

After a late breakfast, we will continue our lecture program. After lunch we will visit a kennel of dogs and learn about the art of raising sled dogs and driving dogsleds through the Alaskan wilderness. We then will be welcomed by the Fairbanks Curling Club to learn about the sport.

We will also visit the University of Alaska Museum of the North. Here, we will see examples of the many peoples who inhabit interior Alaska and displays of both migratory and non-migratory wildlife. We’ll also visit the Large Animal Research Station to learn about their research and see the musk ox and caribou at the facility.

Enjoy a farewell dinner and then watch and photograph the Aurora from the Aurora-viewing facility, Alpengrest Observatory, outside of Fairbanks. Some may choose to photograph the star trails. These dark nights might be a time to experience some of the hearty beverages that keep away the cold. (B,D)

Day 7  Fairbanks to Home

After breakfast, transfer to the Fairbanks Airport. Connect with a flight to Anchorage and fly to the “lower 48” states. (B)

Yes! I/We want to join the Alaska Aurora Borealis Expedition, March 26–April 1, 2015, offered by The Planetary Society and 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:__________________________

Member: ___ Planetary Society ___ AAAS ___ Sigma Xi ___ ACS

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

Signature: ____________________________ Date: __________
Signature: ____________________________ Date: __________

Please Mail To: Alaska Aurora Borealis 2015
Betchart Expeditions Inc.
17050 Montebello Road, Cupertino, CA 95014-5435
**Expedition Fee:** $2,795 per person twin share for 7 days (plus airfare to Anchorage, Alaska, with return from Fairbanks).

**Singles:** We encourage singles to register on a “twin share” basis. If you do not have a roommate and we cannot assign one, you must pay the single supplement.

**What to Expect:** This expedition is for the travel enthusiast who would enjoy seeing the great beauty of Alaska in winter, including “the greatest light show on Earth”—the Aurora Borealis or Northern Lights. Visit Resurrection Bay for the winter wildlife and great scenery. Travel on the classic train journey from Talkeetna to Fairbanks, passing North America’s greatest mountain, 20,320-foot Mt. McKinley en route. See ice sculptures in Fairbanks, and learn about the Aurora Borealis at a scientific institute. Also visit the Museum of the North and muskox research facility. Evenings we will view the Aurora at Mt. Aurora, Creamer’s Field, and Alpencrest Observatory. The Aurora is normally seen on 80% of the clear nights in March and an active Aurora on 4 out of 10 nights in March. There may be some nights when no Aurora is seen, or there could be bad weather (we hope not, but be prepared for this possibility).

Typically, it will be from 15° to 35°F during the days; with temperatures dropping to 10° to –30°F at night. If you have any questions, please consult your physician before you register. This expedition will be a tremendous experience for travelers with an appetite for adventure and discovery who would like to explore the day and night winter wonderland of our 49th state with an excellent leader. (No smoking in vehicles, during lectures, or meals, please.)

**Expedition Fee Includes:** Land transport by coach, train, or vans; six nights accommodations in first-class hotels, twin share with bath; six breakfasts, one lunch, and three dinners; group entrance fees; baggage handling; leadership, administration.

**Expedition Fee Does Not Include:** Airfare to Anchorage with return from Fairbanks; arrival transfers in Anchorage; five lunches, 3 dinners; independent airport transfers; optional activities; personal items such as beverages at meals; alcoholic beverages, laundry, phone calls, bottled water, soda, snacks, or personal insurance.

**Airfares & Airline Ticketing:** Please make flight arrangements directly with the airlines to arrive in Anchorage by 4:00 p.m. March 26, and to depart from Fairbanks late morning April 1.

**Cancellations & Refunds:** The initial deposit for this expedition is refundable up to 60 days before departure less a handling fee of $100 per person. There will be no refund for any cancellation after the 60-day period unless your place can be resold, then only the handling fee of $100 is withheld. There are no refunds for unused meals, accommodations, or other expedition features. Trip cancellation insurance will be offered; it will cover preexisting medical conditions if purchased within 21 days of the date on your confirmation letter and full trip payment.

**Questions?** Please call Taunya DeYoung, Betchart Expeditions Inc.,

**Phone:** (800) 252-4910 or (408) 252-4910

**Fax:** (408) 252-1444

**Email:** Taunya@betchartexpeditions.com

Look on the Web: www.betchartexpeditions.com

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**Auroras in Space**

The magical colors of the Aurora Borealis and Aurora Australis come mostly from excited oxygen and nitrogen in the upper atmosphere. The origin of most of these gases is biological. Oxygen and nitrogen are given off by plants and animals and make their way to the ionosphere, where they are excited by solar winds in bands aligned by the Earth’s magnetic field. In 1979, Voyager captured the first image of an Aurora on Jupiter. The Hubble Space Telescope has discovered Auroras on Jupiter and Saturn, pink from the concentration of hydrogen. Neither planet has a greenish Aurora because there is very little oxygen present. As we look deeper into space, any faint green Aurora may be the first glimpse of organisms that may have produced these telltale gases.