

BACK BAY observer

The Official Newsletter of the Back Bay Amateur Astronomers
P.O. Box 9877, Virginia Beach, VA 23450-9877



EPHEMERALS september 2009

9/1/2009

Boardwalk Astronomy
24th Street Stage
Virginia Beach
6:00 PM

9/3/2009

BBAA Monthly Meeting
TCC Virginia Beach
Building J, Room JC-12
7:30 PM

9/11/2009

Skywatch
NWRP
Dusk

9/19/2009

Nightwatch
Chippokes State Park
Surry, VA

9/24/2009

Bayside Library
Virginia Beach
7:00 PM

9/25/2009

Night Hike
NWRP

9/25/2009

Garden Stars
Norfolk Botanical Gardens
Norfolk
1 hour before dusk



Looking Up!

He's back! Kent Blackwell our own world traveling eclipse chaser has scored yet another great viewing. And it had to be the longest of the eclipses scheduled for our generation. Now even to this old guy - that's really cool, especially from the South Pacific no less. His side trips in Asia make me jealous and I can't wait to here the telling and showing. Kent's travelogue is contained in this newsletter so don't miss it.

BTW, the tentative dates for Kent's Annual Fall ECSP are currently October 16-17 so mark those calendars! Kent promises clear skies or late vintage box wine - your choice, I choose both!

This months BBAA monthly meeting will be back at the TCC Virginia Beach Campus in the planetarium where our host Prof. Kenny Broun has promised to show a new program to us all. I am psyched! I hope to see a large turnout as these shows are really fun.

Fall weather (and clearer skies) is almost here. I know we are worn out by the heat, humidity, clouds, and bugs.

Continued on page 3

CONTENTS

| | |
|--------------------------|---|
| Ephemerals | 1 |
| Looking Up | 1 |
| Special Feature | |
| The China Eclipse | 2 |
| NASA Space Place | 4 |

The Great Asian Total Solar Eclipse of 2009

Kent Blackwell



On July 14, 2009 Robert Hitt and I drove to Washington Dulles airport to board a plane to Seoul, South Korea. From there we would catch another flight to Beijing China. Then it was another three-hour bus ride to Tainjin China to book passage aboard the Costa Classica cruise ship. All in all it was nearly 40 hours of travel time. By the time we were aboard the ship it had been 50 hours since we'd had any sleep.

By 8:00 pm July 14 the Costa Classica set sail for Cheju South Korea, with the following day being a full day at sea. That full day gave us ample opportunity to catch up on sleep and to relax.



The third day would be our first port of call, the town of Cheju, a volcanic island 64km off the coast of South Korea. Before we were allowed entry into Korea each of us had to pass through quarantine inspection, an inspection consisting of both an infrared camera as well as having our temperatures taken. We all passed the test, and that was a relief. I surely didn't want to be stuck in South Korea and miss the rest of the cruise and the eclipse!

Until the year 1200 Cheju was known as Tamra. During the long period of the Joseon dynastic (1392-1910) the island was used to house political exiles. Tourism has only developed in the last few decades, as the area was practically inaccessible from the rest of the Empire for political reasons until a century ago.

From the center of Cheju rises Mount Halla, a now extinct volcano that formed the island over the course of five eruptions. We visited an interesting local market in town, with a variety of foods of which I have never seen before. Some of the edible delights included roasted squid.



The fourth day we sailed into the port of Kagoshima Japan. Kagoshima is Kyushu's southernmost major city, and the capital of Kagoshima Prefecture. The city is often compared to Naples due to its similar mild climate, palm tree lined streets, relatively hot-tempered inhabitants and Sakurajima, Kagoshima's Vesuvius. As early as the mid-16th century Francisco Xavier arrived here to become the first person to introduce Christianity to Japan. Kagoshima Prefecture, which spans 600 kilometers from north to south, is blessed with a mild climate and the rich and diverse natural beauty of unique islands such as Yakushima, volcanoes such as Sakurajima, lush forests and an abundance of hot springs. The views atop the volcano Sakurajima were simply amazing.

July 21 would be another full day at sea, and a perfect opportunity for a dress rehearsal for the eclipse the next day. The Costa Classica would sail at the same course speed and the time of day so each of us would know where the eclipse would be relative to where we set up our equipment. The day was also filled with enrichment lectures about what to expect during the eclipse.

Prior to eclipse day the weather had been mostly cloudy and hazy. We were delighted to be treated to a gorgeous sunrise eclipse morning. In fact some reported seeing the green flash as the sun rose at 4:59 am.

The sky was deep blue, with puffy white clouds. Even more amazing, the Pacific Ocean was like a lake, with hardly a ripple in the water. As we sailed past the island of Iwo Jima everyone was busy setting up telescopes and positioning deck chairs and lounges where they would watch the eclipse. The captain of the Costa Classica positioned the ship at 25-deg. 15.1' 6.6" N. latitude and 142-deg. 04'14.1." E. longitude, a position that would allow us to view the eclipse longer than anyone else on earth, 6 minutes and 42.3 seconds. One person calculated

continued on page 5

The Back Bay Amateur Astronomer's Observer

The BBAA Observer is published monthly; the monochrome version is mailed to members who do not have Internet access. Members who do have Internet access can acquire the full color version on the Internet at <http://www.backbayastro.org/newsletters/newsletter.shtml>.

Please submit articles and items of interest no later than the 15th of the month for the next month's edition. Please submit all items to: BBAAErica@yahoo.com or BBAA Observer, P.O. Box 9877, Virginia Beach, VA 23450-9877

President
Bruce Bodner
757-627-7980
bbodner@worldnet.att.net

**Vice President and
Webmaster**
Chuck Jagow
757-547-4226
chuck@jagowds.com

Treasurer
Neill Alford
757-430-9732

Secretary
Matt McLaughlin
757-495-9607

ALCOR
Georgie June
doublestarjune@msn.com

Librarian
Gerry Carver
popcarg@aol.com

RRRT Coordinator
Ted Forte
twforte@cox.net

Scholarship Coordinator
Ben Loyola
benito@loyola.com

BBAA Meetings

The BBAA meet the first Thursday of every month except for July. While school is in session, we meet at the VA Beach TCC Campus. **The September meeting will take place at TCC VB in Building J, Room JC-12 at 7:30 PM.** Directions available at www.backbayastro.org.

BBAA Internet Links

BBAA Web Site
www.backbayastro.org

Yahoo! Group
groups.yahoo.com/group/backbayastro

BBAA Observer Newsletter
www.backbayastro.org/newsletters/newsletter.shtml

Looking Up! Continued from page 1

Perhaps even the Sun will decide its long rest is over and give us solar scope guys a new daytime astro-activity. I need to look up "sun spot" once again to find out what they are???

Boardwalk Astronomy is over for this summer season. The VB folks really enjoyed having us. I suspect we shall repeat for a third year in 2010. The Mt. Trashmore Star Party was such a success this year that the schedule is being prepared for our return engagement in March or April. Thanks to Charles Dibbs and our own Dale Carey for all their work to make these events so great. It sounds like a fun year is being prepared for the club and for our public outreach activities.

Who knows, perhaps the weather gods will smile on us this Fall and Winter. We have certainly earned some serious sky time for our efforts.

I hope to see all of you doing your astro thing this month.....Clear Skies,

Doc Bruce



A Planet Named Easterbunny?

You know Uranus, Neptune, and Pluto. But how about their smaller cousins Eris, Ceres, Orcus, and Makemake? How about Easterbunny?

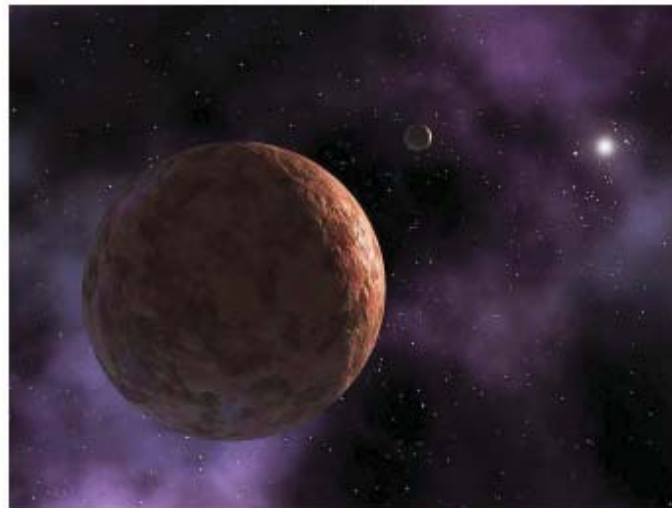
These are all names given to relatively large “planet-like” objects recently found in the outer reaches of our solar system. Some were just temporary nicknames, others are now official and permanent. Each has a unique story. “The names we chose are important,” says Caltech astronomer Mike Brown, who had a hand in many of the discoveries. “These objects are a part of our solar system; they’re in our neighborhood. We ‘gravitate’ to them more if they have real names, instead of technical names like 2003 UB313.” Nearby planets such as Venus and Mars have been known since antiquity and were named by the ancient Romans after their gods. In modern times, though, who gets to name newly discovered dwarf planets and other important solar-system bodies? In short, whoever finds it names it. For example, a few days after Easter 2005, Brown and his colleagues discovered a bright dwarf planet orbiting in the Kuiper belt. The team’s informal nickname for this new object quickly became Easterbunny.

However, ever since its formation in 1919, the International Astronomical Union (IAU) ultimately decides whether to accept or reject the name suggested by an object’s discoverers. “Easterbunny” probably wouldn’t be approved.

According to IAU guidelines, comets are named after whoever discovered them—such as comet Hale-Bopp, named after its discoverers Alan Hale and Thomas Bopp. Asteroids can be named almost anything. IAU rules state that objects in the Kuiper

belt should be given mythological names related to creation.

So Brown’s team started brainstorming. They considered several Easter-esque names: Eostre, the pagan mythological figure that may be Easter’s namesake; Manabozho, the Algonquin rabbit trickster god.



Artist’s rendering of dwarf planet MakeMake, discovered around Easter 2005. Unlikely to gain acceptance their nickname Easterbunny, the discoverers named it for the god of humanity in the mythology of Easter Island.

In the end, they settled on Makemake (pronounced MAH-kay MAH-kay), the creator of humanity in the mythology of Easter Island, so named because Europeans first arrived there on Easter 1722. Other names have other rationales. The dwarf planet discovered in 2005 that triggered a fierce debate over Pluto’s status was named Eris, for the Greek goddess of strife and discord. Another dwarf planet with an orbit that mirrors Pluto’s was

dubbed Orcus, a god in Etruscan mythology that, like Pluto, ruled the underworld.

Brown says he takes “this naming business” very seriously and probably spends too much time on it. “But I enjoy it.” More tales of discovery and naming may be found in Brown’s blog MikeBrownsPlanets.com.

Constellations have also been named after ancient gods, human figures, and animals. Kids can start to learn their constellations by making a Star Finder for this month at spaceplace.nasa.gov/en/kids/st6starfinder/st6starfinder.shtml. There you will also find a handy explanation of why astrology has no place in science.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

that if someone had run from the aft end of the ship forward they would have gained .34 seconds and would have seen the eclipse longer than anyone on earth. Thank goodness no one acted irresponsibly and did that! The next eclipse of this duration will not occur until the year 2132.



First contact was at 11:03 am. It's so fascinating watching the first tiny bite being taken out of the sun by the moon. It would be over an hour before 2nd contact, the beginning of totality. The tension grew immensely as the moment of totality approached. With the sun at nearly 85-degrees altitude one had to look toward the zenith to view totality, not too comfortable for refractors or binoculars. The view of the eclipsed sun in my 80mm f/8 telescope was just incredible! There's nothing in nature that can compare to a total



solar eclipse, whether you view it in a telescope, binoculars or just the naked eye. During totality the temperature dropped from 96F to 84F. The Sky Quality Meter read 13.33 at mid-totality, which is comparable to civil twilight. Last year's eclipse over the Arctic Circle was considerably darker.

I began snapping pictures using a Canon 20Da, and a 80mm f/8 TMB telescope. Since this eclipse was nearly seven minutes duration I had ample time to get some great views and take many images. By 3rd contact I had snapped over 300 pictures.

Emotions ran high as 3rd contact occurred, producing the most awesome diamond ring I have ever seen. I also saw a large prominence, a surprise since the sun has been so inactive.

Surrounding the Costa Classica were two Japanese cruise ships, the Fuji Maru and the Asuka II. Each ship sounded their horns to signify a successful eclipse, and we returned with a loud blast of our horn. When someone asked me what I thought of the eclipse I couldn't help but have tears in my eyes describing my thoughts.

Several people sent glasses of champagne to Robert and me, and it was most welcomed. Preparing for an eclipse can create much tension, so those glasses of champagne came at a perfect time as the eclipse came to an end. We had helped a few eclipse virgins so they showed their appreciation by treating us to a round of drinks. One thoughtful person even brought me a cold Corona.



In my opinion the only way to see a solar eclipse is on a cruise ship. First and foremost is the maneuverability of a ship. In this case our onboard meteorologist Allister Ling picked just the right place for us to view the eclipse. If you're on land and are hampered by clouds there's little you can do, especially if unfamiliar with the territory around you. The best reason, though, for a cruise is that all the passengers become like a family prior to eclipse day. After the eclipse we're all brought even closer together. If you're viewing an eclipse from land more than likely you won't know anyone around you. There's a certain intimacy aboard a ship. Some people I met this last trip I've known since sailing on the P&O ship Canberra in 1973! It seems every year the eclipse "groupies" crowd grows.

This year there seemed to be slightly fewer eclipse chasers than previous years. Several reasons account for this, no doubt the economy being the primary reason. The fact



Welcome New Member!
Arthur Raymond

one had to travel half way around the world is certainly another. Actually, it turned out to be quite nice. With only 1000 passengers on a ship designed for 1400 made for a very relaxing cruise. There was rarely a crowd in the breakfast or lunch line, and there was always ample deck space both on eclipse day as well as days to just relax in the sun.

The day after the eclipse



was another full day at sea, and gave us time to assemble our photographs for a show-and-tell held in the ship's auditorium. It's amazing how digital photography has changed eclipse chasing. In the old film days one never knew what they captured until returning home and sending the film out to be processed. That's all changed. I was showing the results of my totality images before the partial phase of the eclipse was finished. Within two hours I had a selected series of pictures stored on a computer jump drive and ready to show at the presentation.

The next port of call was Kobe, Japan. Upon arrival a large military band stood at attention on the dock playing Sousa marches. Imagine that, a Japanese band standing at attention playing American march music to a predominantly American group of cruise ship passengers.

Kobe is the capital city of Hyogo Prefecture and a prominent port city in Japan with a population of 1.4 million. While the 1995 Great Hanshin Earthquake diminished much of Kobe's prominence as a port city, it remains Japan's forth-busiest container port. Kobe is known for having a somewhat exotic atmosphere by Japanese standards.

A modern fully automated monorail, called Portliner is located only yards from the port where the Costa Classica was docked. A quick ride on the Portline took us to the main train station in Kobe, and from there we could travel most anywhere in Japan by train. Our first city of choice was Kyoto.

Kyoto is a very historical city and so much to see it's impossible do to so in only a day or so. We selected several castles and temples to visit. The best way to get around all of Kyoto is by city bus. A one-day pass cost 500 Yen, about \$6 US, a real bargain.

Perhaps the most famous historical site is Nijo Castle,

built in 1603. Nijo Castle is one of the finest examples of the early Edo period and the Momoyama culture in Japan. The Honmaru (Inner Palace) was added to the castle complex in 1626 upon the orders of the third Tokogawa Shogun, Lemitsu. Photography is strictly forbidden inside the buildings but is allowed outside the buildings and in the Ninomaru Gardens.

We visited three other castles and temples that day. By 8:00 pm it was time to return to the ship. Since I had skipped lunch and dinner you can imagine how starved Kent was! I simply went to the dining room on the ship and ordered three of every entree on the menu.

The ship docked overnight in Kobe so after dinner it was time to explore Kobe's nightlife. Friday night was very active in the heart of the city, a city full of vibrancy and excitement. Virtually everything was for sale on the streets of Kobe, including the world renowned and very pricey Kobe steaks.

The next day we explored the Japanese city of Osaka, home of the famous Osaka Castle Park. I'm sort of a model railroad buff and was delighted to see a Japanese rail fan club had set up live miniature steam trains in the courtyard outside a museum and was giving little kids rides on the trains. The look on those kids' faces was priceless as the miniature steam locomotives carried them across the courtyard.

Osaka Castle Park is a huge site, and has had quite a turbulent history. In 1496 a high-ranking monk of the Joudoshinshu sect had a monastic residence built near the site. This eventually grew into the large temple known as Osaka Honganji. The temple boasted great power and influence until 1580 when it yielded to Nobunaga Oda during his campaign of national unification and it burned to the ground. After his death Hideyoshi Hashiba took control of political affairs and began construction of a castle at the site. However, after his death political control moved to Tokugawas and the castle fell during the Summer War in Osaka in 1615. The castle was reconstructed in 1931. The area around the castle was damaged during the bombings of WWII but has been restored and turned into a historic park.

It took most of the day to see Osaka Castle and we had to be back on board the ship by 6:00 pm to set sail for our final port, Tianjin, China. It would take 2-1/2 days at sea to reach Tianjin but that gave ample time to relax, and time to pack for the long trip back home. Tianjin is a small Chinese city, comprised of only 11 million inhabitants. Perhaps the most famous tour site near Tianjin is the Great Wall of China in Jixian County to the north. Since we'd already been there a few years ago we opted to tour the town of Tanggu, a much smaller city of only 2 million. Robert and I loved walking around the town. It's refreshing to visit such a place with no other westerners. It was the epitome of a non-touristy city. In fact, we couldn't find anyone who could speak English but the almighty electronic calculator is all that's needed when you find something you wish to purchase. A trip through the local market was, well, colorful and educational to say the least. We found everything from fried octopus on a stick to blue goose eggs. Maybe I'll wait until I get back on the ship to eat dinner.

Well, the dreaded trip back home was the next day. We would have to ride three hours on a bus from Tianjin to

the airport in Beijing. Because a serious traffic accident had a major highway closed it took five hours. We were already tired and the trip home hadn't even started yet. Once at the Beijing airport I craved a good old American hamburger. A Big Mac cost less than a US dollar and French fries about the same.

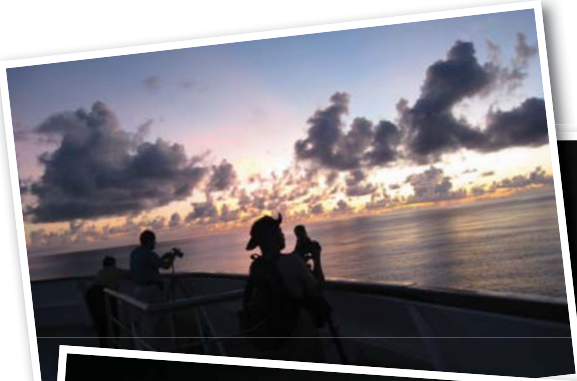
Some four hours later we were on Asiana Air headed for the two-hour flight to Seoul, South Korea. After a two hour layover the next leg of the trip involved a 12-hour flight from Seoul to Los Angeles, California. Ah, we're almost home. The flight from L.A. to Dulles Airport in Washington D.C. was another five hours. After arriving at Dulles we had to pick up our car and drive home, another four-hours. Once again, we had each been awake over fifty hours. Was it worth it? You bet it was. Would we do it again? You bet we would. Robert Hitt and I celebrated our exeligmos by observing three consecutive eclipses of the same Saros, in the years 1973 off the coast of

Africa, 1991 near the Baha Peninsula in Mexico and 2009 off the coast of Iwo Jima!

We may miss the eclipse of 2010, an eclipse whose track takes it across Easter Island and the Pacific Ocean. We've both been to Easter Island and it often clouds up in the day. The only ship planning a cruise is the Paul Gauguin. Even if it wasn't already sold out the cheapest cabin is \$10,000.

The eclipse everyone should consider is in 2012, whose path of totality takes it across northern Australia and the Pacific Ocean.

It was a long and difficult journey getting to the expedition but well worth it. We are both very fortunate indeed to have witnessed thirteen of the most awesome spectacle nature has to offer, a total eclipse of the sun.





BACK BAY ***observer***

September 2009

| BBAA Events | Special Outreach | Astronomical Events |
|-----------------------------|-------------------------|---------------------|
| 01 Boardwalk Astronomy (VB) | | 04 Full Moon |
| 03 BBAA Monthly Meeting | | |
| | | |
| 11 Skywatch (NWRP) | | 11 First Quarter |
| | | |
| 19 Nightwatch (Chippokes) | | 18 New Moon |
| | | |
| 25 Night Hike (NWRP) | 24 Bayside Library (VB) | |
| 25 Garden Stars (Norfolk) | | 25 Last Quarter |

Sneak Peak into October:

10/1 BBAA Meeting at TCC VA Beach

10/9 Skywatch at NWRP

10/17 Nightwatch at Chippokes

10/23 Garden Stars

10/29 Bayside Library



The Virginia Association of Astronomical Societies

Annual Conference

Saturday, September 12th, 2009

at the NRAO auditorium

The National Radio Astronomy Observatory

Charlottesville, Virginia