EX-Ls EX-PRESS

Volume 26 Number 4 Fall 2008

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Volume 26 #4: Fall 2008 (Published October 2008)

President's Message Jose Alonso

As summer moves on to fall, another year wraps up for the EX-Ls. This will be my last President's Report; seems like the year has flown by! I'll be passing the baton to Don Grether in January, and look forward to a great year next year under his leadership. It's been a fun time (as far as my interactions with the EX-Ls is concerned), though I effectively lost two months this summer for surgery and recovery. Carol and I had exciting times dodging hurricanes in Houston where I went for surgery (including several trips for pre- and post-surgical visits), most dramatic was our promenading along Seawall Boulevard in Galveston just a week before Ike totally trashed it. Good news is that I got a clean bill of health at my last follow-up, so now it's just a matter of fighting my inertia and getting off my fat duff to pick up my squash racquet again.

Regarding changes, I remind you that maybe even more important (depending on your perspective) than the national elections in November will be our own elections! The November luncheon will be our Annual Election Meeting, during which we will formally present to you the slate of elected officers for the coming year. The Nominating Committee will report on this slate at our Board meeting in October, possibly in time to make the deadline for this edition of the Newsletter.

Also changing guards is the LBNL Representative on our Board. As you know, Terry Powell retired earlier this year (and has already joined the EX-Ls!) and will be gracing us with her presence at luncheons once she realizes that being retired should *decrease* one's work load! Taking Terry's place will be Mark Chekal-Bain, our new LBNL Community Relations Officer, who comes to us from UCOP, where he served as Director of Advocacy for the University of California System. We welcome Mark, and look forward to a great time working with him.

This year we worked to bring our membership a wider variety of activities. Our first attempt was a planned outing at El Cerrito's *Playland-not-at-the-Beach*. Unfortunately, we did not receive enough signups to make this happen, and had to cancel our arrangements at the last minute. We are evaluating the lessons learned from this experience, and will look to see whether there is sufficient interest from you, the membership, in continuing this program. Please let your feelings be known! And... if we DO schedule another activity, please sign up!

We have made substantial progress in the reworking of our By-Laws. Many updates have been included to more closely reflect today's face of the EX-Ls, and the way we operate as an organization. One item, which was mentioned at our last Luncheon, will be the suggested creation of a new category of membership, entitled Life Membership. Our suggestion is that you could sign up for this status by a one-time payment, equal to ten times the dues at the time. This would relieve you of having to remember to remit the dues each year. [Continued on p 6.]



2008 Fall Lunch

Date: Thursday, November 20, 2008

Where: Berkeley Yacht Club ←←Note: We're back at BYC

1 Seawall Dr. (go to the foot of University Ave. and turn right)

Berkeley

Time: No-host Bar: 11:30 AM

Lunch Served: 12:15 PM

Speaker: Ronald M. Krauss, MD; Department of Genome Sciences, LBNL

Subject: Cholesterol: How and Why Does it Matter?

Menu: Buffet, with the following entrée offerings:

Chicken Florentine; Lasagne Roma; Oven Poached Salmon

NOTE: Since this is a buffet luncheon, a choice is not required

Cost: \$25 per person (PREPAID)

Reservations: Please make checks payable to EX-Ls. Send to

Vicky Jared

4849 John Muir Road Martinez, CA 94553

For regular mail, the reservation slip is on page 21. You may also reserve via e-mail to jaredrv01@aol.com, or telephone at

925-228-2145.

It is absolutely imperative that Vicky receive your reservations by November 17, 2008.

From our August Lunch

Reported by Jose Alonso: Our speaker was Natalie Roe, LBNL Physics Division, on the history and status of research into dark energy.

Background. Several years ago Saul Perlmutter's group at LBNL discovered the startling fact that the rate of expansion of the universe is actually accelerating. Conventional wisdom had it that the mutual gravitational attraction of all the mass in the universe would tug at the receding galaxies, and slow the observed expansion down. Saul's conclusion was that there had to be *something* that was counteracting the pull of gravity and was actually pushing all the matter in the universe apart. Nobody has any idea what this *something* is, and since we can't see it, it has been labeled *Dark Energy* for lack of a better descriptor.

Backing up a little bit: if we look at all the galaxies around us, we can see that (except for the few in our immediate vicinity) they are all moving away from us. The farther away they are the faster they are receding. Their velocities relative to us are determined by what is called "spectral red shift". The spectrum of light from stars has certain characteristic wavelengths corresponding to atomic transitions in elements that we know are found in the stars. So if one spreads the light from a star out with a prism or grating separating the colors, one will see a pattern of very sharp, bright lines corresponding to the elements in the star. Now, if the source of the light is moving, the whole pattern of light will shift either towards the blue end (if the source is moving towards us), or towards the red end if it is moving away from us. The analogy of the pitch of a train whistle going past us is often used, and it's a good descriptor of what's happening. Well, you guessed it... all these distant galaxies have their patterns shifted to the red end. And, as said before, the amount of the red shift is a measure of just how fast the source is moving away from us.

The next piece of the puzzle is to find out just how far the galaxies are from us. For this we need a good ruler. Saul's group used a type of supernova for this, called a *Type 1a supernova*. Studies of this type of exploding star have determined it to be a white dwarf that picks up so much gas from a nearby companion that it becomes unstable and collapses setting off a rather large thermonuclear explosion. A remarkable aspect of the explosion of these particular stars is that they all seem to produce the same amount of light. Astrophysicists call this a *standard candle*. Sort of like the wattage on a light-bulb: these are all "100-watt" bulbs. Now, we know that if that light bulb is farther away from us it will appear dimmer. In fact, by measuring exactly how bright it is to us, we can tell how far away it is. The amazing thing about these supernovae is that they are SO bright that we can use them to measure distances of many billions of light years.

Now, we all know that supernova explosions are extremely rare, typically one explosion every 100 years or so in a given galaxy. However, we know there are billions of galaxies out there, so if you look for them, these explosions are actually happening all the time!

Next thing is that we can translate this distance measurement into time that is, as it turns out, quite comparable to the age of the universe. A *light year* is the distance traveled by light in one

year. Since light travels at 186 thousand miles per second, this is a pretty long distance [at ten cents a mile it's more than five times our national debt. //ed] Now, if we measure a galaxy to be, say, 5 billion light years away, that means that the light from that galaxy was emitted 5 billion years ago! Another great recent accomplishment of astrophysicists has been to determine how far back in time the universe was formed: several independent measurements have determined the time from the Big Bang to now to be around 13 billion years.

Putting this all together, using these Type 1a supernovae we have a means of making measurements of the speed of galaxies all the way back to a time when the universe was only about a quarter of the age it is today.

So now we can understand Saul's experiment: He saw galaxies in the young universe moving away from each other at a given speed, and galaxies in the universe closer to our time moving away from us now at a *greater* speed. That's it! Why? Still a great puzzle, and an extremely active field of research today. Adding more to the puzzle is the magnitude of the effect. To account for what they saw, the amount of Dark Energy had to be about 10 to 15 times the amount of total mass that could be seen in the universe! So, it appears as if roughly only 5% of the total stuff in the universe is "ordinary" matter; and more than 70% is Dark Energy. The remaining 25% is dark matter, another mystery (whose existence is inferred from motion of galaxies in clusters).

What a fascinating time for an astrophysicist to be alive! We just don't know anything about 95% of the stuff making up the universe! Clearly, we need to be doing more research! The focus up to recently has been on new telescopes – land-and space-based – to measure more supernovae to gather more statistics on the velocity and distance measurements. But the field is ripe for new ideas.

Natalie's Research. Natalie and her group are branching off in a different direction, aimed at perfecting a new ruler for measuring distances. This new ruler is called the "Baryon Acoustic Oscillation", and is related to the statistical correlation between the separation of mass densities. Not easy to explain, but the Cosmic Microwave Background measurements (for which George Smoot received the Nobel Prize) fix a correlation distance of some 500 million light years. Stated simply, if you have a large clump of mass (a galaxy cluster), and look at the amount of mass surrounding this clump, you'll see a slightly higher concentration of mass on a sphere of radius 500 million light-years from the clump. If you see this correlation, and measure the red shifts of its elements, you've got another point on the distance-velocity plot. Now, there are a lot of galaxies and galaxy clusters in any given 500 million light-year radius, so it takes a lot of measurements and a lot of statistical manipulations to pull out the information you need. This is precisely what Natalie and her group are planning on doing.

Natalie's experiment is called BOSS, for Baryon Oscillation Spectroscopic Survey, and does not require expensive new satellites or telescopes. She will be using the now-underutilized small telescope located in Arizona employed for the highly-successful Sloan Digital Sky Survey. The

experiment has received a large amount of support and encouragement, and should be yielding interesting results in a few years.

We wish Natalie the greatest degree of success in this fascinating endeavor!

Luncheon Attendees:

Jose AlonsoIngeborg HenleConway PetersonBob AveryWinnie HepplerPatti Powers-RisiusDick BakerRon HuesmanMichael Press

William Baker Vicky Jared Senta Pugh-Chamberlain
Winnie Baker A. David Johnson & Guests Bernard &
John Berkovitz Nylan Jeung Margaret Harvey
Gene & Myrna Binnall John & Ann Kadyk Sig & Cindy Rogers

Bob Birge & guest Barbara Matt Kotowski Stephanie Roth
Borowiak Bud Larsh George & Reni Shalimoff

Kay Bristol Branko Leskovar Brenda Shank Jerome Bucher Ken Lou Elmer Silva

Geores Buttner & Katie Katherine Lucas Betsy Smith & guest
Clevenger Bob Miller Genevieve Dreyfus
Winifred Corniea Donald Miller Robbie & Mary Smits
Per & Eleanor Dahl Jeanne Miller Dave & Sally Stevens

Janis & Ned DairikiKen MirkSuzanne StrohTed & Margaret deCastroBob & Jeanne MortiboyClyde Taylor

Sybil Donn Rolf Muller Grace & Ron Walpole William Gilbert Charles Ogden Suzanna Wingerson Norm Goldstein Karl Olson Allan Zalkin Don & Becky Grether Fred Perry Jon Zbasnik

James Haley Speaker Natalie Roe

President's Message (continued)

And... as we'll all live to well over 100, it will sure be a bargain! We expect to have the new By-Laws ready for presentation to the Board by the next meeting, in January, after which they will be presented to the Membership at the February luncheon for approval. We'll probably publish them for your perusal in the January Newsletter.

One other thing we generally do each year is make a contribution in the name of the EX-Ls to an organization at the local level that provides assistance to the elderly or that fosters education in science, or (on a global scale) that provides disaster relief. As you can imagine, there are always more worthy candidates than we can support. This year's contribution will go to the Contra Costa County Meals on Wheels.

Luncheons have been outstanding this year, with great speakers thanks to Don Grether's tireless efforts. You can read in these pages Natalie Roe's fascinating account at our last luncheon of her

quest for better understanding of Dark Energy through measurements of distributions of galaxy clusters. Next luncheon we'll hear from Ron Krauss, who has pioneered much of our understanding of good and bad cholesterol. His topic will be *Cholesterol: Why and How does it matter?* Don't miss it!

Looking forward to seeing you at the Berkeley Yacht Club on November 20th!

Editor's Note

Don't forget, the November luncheon is our election meeting; we have some unfilled slots, so if you – or someone you know – is interested in joining the Board, it's not too late to let Rich Sextro know (rgsextro@lbl.gov). We shall continue to put pad and pen on the tables, and we encourage you all to scribble us a note as to what you are doing; we would like to maintain – and expand – the "news of our members" – but we can't do that unless you tell us what you're doing. As always, articles or ideas for articles are welcome; the deadline for each issue is ten days after the preceding Board meeting (a full year's schedule is listed on the back cover; notice that the meetings now start at 3:00 on the dates listed). You can contact me at david_stevens@comcast.net, at 1107 Amador Ave, Berkeley 94707, or 510-524-2904. // dfs

Reminder: The November luncheon is at the Berkeley Yacht Club

Is EX-Ls EX-Peditions already an Ex-Activity?

We had insufficient interest expressed in our proposed Ex-Pedition to *Playland not* at the beach to justify a midweek special tour, and so – regretfully – cancelled it. For those who would like to go on their own, it is open on Saturdays from 10 to 5, and they promise some special activities for October. (Details at the website, playland-not-at-the-beach.org, or their information line at (510) 592-3002. Also you can see Vicky's review elsewhere in this Newsletter.) Ever undaunted, we shall try again, with a projected visit to the Blackhawk Auto Museum in the spring (more details in the January newsletter). One thing that would help us plan is to know whether midweek excursions are Good Things or Bad Things. There are advantages both ways: Midweek is generally less crowded (and, in fact, may be the only times when we could get advantageous entrance as a group); on the other hand, if the activity is one that school-aged grandchildren might enjoy, maybe only weekends make sense. We'd like to hear your thoughts.

News of our members

Lost Life Member: We have lost track of Life Member **Esther Colwell**; if you know her current address, please contact Suzanne Stroh, 530 Curtis St, Albany, 94706, 510-524-1953, scstroh@gmail.com.

Sig & Cindy Rogers are still ping-ponging between here and Virginia, putting the finishing touches on their new house (visitors welcome). They also found time to visit Spain, Italy, and Hungary.

Stephanie Roth casts her vote in favor of instituting a Life Membership option; what about the rest of you? (See the LM note elsewhere in this NL.)

Sue Wingerson notes that she will be volunteering at the *Fungus Fair* at the Oakland Museum, December 6 & 7. (More than you'll ever want to know about mushrooms.)

Luncheon debate, continued: **Stephanie Roth** also voted to stick with Spenger's, while there were two anonymous votes cast *against* Spenger's.

Don Grether has agreed to serve the unexpired term of the second EX-Ls representative to the Berkeley Retirement Center Policy Board.

Keeping Up with the Lab

<u>What is glass?</u>: If you think you know what glass is, you should read the following article: (http://www.nytimes.com/2008/07/29/science/29glass.html?_r=2&sq=Berkeley&st=cse&oref=slogin&scp=1&pagewanted=print&oref=slogin)

<u>And you thought they were just pests</u>: The digestive processes of termites show promise of new ways to harness the energy inherent in wood. (http://www.smithsonianmag.com/science-nature/termites-bellies-biofuels.html?c=y&page=1)

<u>Is X-ray vision next?</u>: Berkeley scientists have for the first time engineered 3-D materials that can reverse the natural direction of visible and near-infrared light, a development that could help form the basis for higher resolution optical imaging, nanocircuits for high-powered computers, and, to the delight of science-fiction and fantasy buffs, cloaking devices that could render objects invisible to the human eye.

(http://www.berkeley.edu/news/media/releases/2008/08/11_light.shtml)

An introduction to the LHC: The Large Hadron collider at CERN achieved beam circulation on September 10, but has since been shut down temporarily to repair a broken connection in one of the supercooled magnets. For a non-scientist's guide to the world's newest atom smasher, see http://www.youtube.com/watch?v=j50ZssEojtM.

But will they do anything about it? The National Oceanic and Atmospheric Administration has been awarded 2.6 million processor hours at NERSC to improve the quality of climate (change) and weather prediction.

<u>Foreign relations</u>: The Lab is continuing to develop research partnership with China and India, with particular emphasis on climate change and environmental protection.

<u>The site</u>: The Hill is experiencing both additions and subtractions with respect to structures. One addition, the guest house, is beginning to rise, just uphill from the Cafeteria. And a major subtraction is scheduled to begin in October: demolition of the bevatron. And despite the lessons you learned when you were twelve years old, the latter is expected to take much longer than the former.

The primary Lab news vehicle is now http://newscenter.lbl.gov/ This has replaced the several earlier access mechanisms, which are listed below, together with the date of last updating.

The Berkeley Lab VIEW Newsletter http://www.lbl.gov/Publications/Currents (posted only through March, 2008)

LBL Today (Daily news from LBL) http://www.lbl.gov/today (last issue: June 10, 2008)

Science @ Berkeley Lab http://enews.lbl.gov (most recent post: March 10, 2008)

Life Membership? Suzanne Stroh

At the summer meeting of the EX-Ls Board of Directors, we discussed the suggestion that it might be attractive to some of you if we were to offer a Life Membership category for the EX-Ls. As you know, annual dues are \$12 per year. These funds are used primarily for postage, supplies, and other expenses related to the quarterly luncheons and for producing the newsletter. Every January a renewal letter goes out and over about 3-4 months renewals are made. Some have suggested that it would be nice not to have to remember to respond to a renewal letter each year. What would you think of paying a one-time fee of \$120 (i.e. the equivalent of 10 years dues) to purchase a Life Membership to the EX-Ls? Opponents of the idea point out that the cited price may be too low in that it might not keep up with inflationary increases in our costs. Would the convenience of not having to think about renewing your dues make YOU avail yourself of it? Your opinion counts so please let me know what you think. You can call me at 510-524-1953, send me a note at 530 Curtis St, Albany, CA 94706, or send an email to scstroh@gmail.com. Thank you!

ACA5: Proposed Change in Governance of UC Retirement and Benefit Funds (adapted from a message from CUCRA)

The Ex-Ls Board of Directors believes the following information is of interest to the membership. Although it now appears that this proposed amendment will not be on the ballot this November, we believe that it is not a dead issue, and that it, or a substantially similar amendment, may show up on a future ballot. We will endeavor to stay abreast of developments, and keep you informed.

Proposed Assembly Constitutional Amendment 5 would amend Article IX, Section 9 of the state constitution (the article that deals with UC) to remove from the purview of The Regents the governance of all UC retirement and benefit funds (UCRS, future health benefit trusts, etc.) The measure would create a 13-member, broad-based, board similar to the one governing PERS, made up of political figures (governor, et al.), an Academic Senate representative, a retiree, and employee representatives, among others.

In addition to establishing joint governance of UCRS, this Constitutional amendment would establish a new area in which UC would be subject to legislative control by requiring UC to "comply with any additional requirements that regulate the plan and those programs that are enacted by statute." Currently, under Article IX, Section 9 of the California Constitution, the Regents have full powers of organization and government, subject only to such legislative control as may be necessary to insure the security of its funds and compliance with the terms of the endowments of the university and such competitive bidding procedures as may be made applicable to the university by statute for the letting of construction contracts, sales of real property, and purchasing of materials, goods, and services.

Here is some further information on the legislation. First, the link to the measure itself with the legislative counsel's digest up front: http://www.leginfo.ca.gov/pub/07-08/; from here you need to select the following links one at a time: bill/; asm/; ab_00010050/; then a long scroll down to aca_5_bill_20080616. And here is a link to the page where you can check the status and history, as well as link to the committee analyses: http://www.leginfo.ca.gov/, then make the following selections in order: Bill Information; enter bill number aca_5_bill_20080616 and select Search; select ACA 5 – Portantino. This last page will provide access to status, analyses, and history (including both committee and floor votes). The indented paragraph above is extracted from the Assembly Floor analysis for the third reading of the bill.

Note that recent newspaper articles have indicated that the University's employees' union is sponsoring a ballot initiative with language identical to that in the proposed constitutional amendment.

From the Berkeley Retirement Center Andre Porter

New Director: BRC is please to announce the appointment of Patrick Cullinane as Director, effective October 1. Mr. Cullinane comes to us after 18 years with the American Society on Aging.

CalNet Ids: Some campus services require a CalNet Id/passphrase combination. The default Id is the person's employee number, but retirees lose those numbers when they retire. There are two ways for a retiree to obtain a CalNet Id: through the Laboratory's Human Resources Department or by subscribing to one of the Berkeley Retirement

Center's e-mail options through the Cal Retirement Center Network (CRCN). This may be done in either of two ways:

- CRCN CalMail, which offers a full berkeley.edu email account with an address, storage, and support. This option is \$60 per year, plus a one-time \$10 administrative fee.
- CRCN Email Fowarding, which offers a pseudo berkeley.edu address, which is forwarded to your own email account (gmail, hotmail, yahoo, aol, earthlink, etc.).
 This option is free, but does include the one-time \$10 administrative fee.

Those interested in either option, should contact the retirement Center (phone: 510-642-5461, email: ucbrc@berkeley.edu) or sign up for either option on the Center's website: http://thecenter.berkeley.edu.

Planning Today for Your Fiscal Tomorrow: Free program, presented by Adrian Harris, UCLA Vice Chancellor-Planning, Emeritus

[Reminder: We featured a column by Adrian Harris on minimum required distributions from tax-protected accounts this past spring. //ed]

1-5 pm on Thursday, November 20, 2008, and Friday, November 21, 2008 [NOTE: The Thursday date conflicts with the EX-Ls luncheon, so it's important to tell the Berkeley Retirement Center when you make the reservation that you wish to attend the Friday session.]

Location provided when you register.

Sponsored by: UCB Retirement Center, UCB Emeriti Association, UC Retirees at Berkeley, Presidents and Regents Retirees Association, Lawrence Berkeley National Laboratory EX-Ls, and the Chancellor's Office

Contact: UCB Retirement Center at 642-5461 or ucbrc@berkeley.edu for details or to register.

Regents' policy on rehire of retired annuitants: You may have seen in the newspaper that the Regents have adopted a more stringent policy on the rehiring of retired annuitants. As of this writing, that policy has not yet been translated by the Office of the President into an operational policy. We shall try to have more details for you in the next newsletter.

Trip Reports

1: Chasing an eclipse in China Sandra Stewart

"Welcome home, Sandra." The words lingered in my mind as I stepped away from the Immigration Counter at the San Francisco International Airport. I hurried to catch up with Jacques who was already heading to the luggage pickup area. We were returning from a week in China, a journey conceived some fifteen months earlier with a history that exceeded twenty-nine years.

Since 1979, my passion has been to stand in the shadow of the moon whenever, wherever possible; i.e., to chase total solar eclipses. In this millennium, this craze has taken me to Africa twice: Zambia, June 21, 2001; The Republic of South Africa, December 4, 2002. [Note: Eclipses occur in *Saros Series*; eclipses in the same series are separated by the *Saros cycle*, a period of approximately 18 years, 11 days, and 8 hours, and 120° of latitude. Successive eclipses belong to different Saros Series. //ed]. Clouded out in 2002, my quest had not been fulfilled. Had my passion for the chase retired also?

In April 2007, a call to friends and fellow chasers, Huguette and Jacques Guertin, answered the question. Jacques was going with Paul Mallory's "Ring of Fire Expeditions" out of Houston, associated with NASA Johnston Space Center, as a 'team leader' for the August 2008 eclipse in China and he was looking for a roommate. Huguette approved of the arrangement; the decision was made, I would go with Jacques.

Flash forward fifteen months: Sunday, July 27, 2008.

The van pulled up 15 minutes early, meaning that arrival at the airport would now precede our flight by more than five hours. Jacques is a dedicated eclipse chaser who specializes in high-resolution photography of the prominences, requiring a large telescope and auxiliary equipment. Check-in can be a challenge. Arriving at the Air China counter, I joined Jacques who was engaged in conversation with the personnel at a nearby scale. After much switching of contents, our bags were accepted and we were free for the next four hours. Our transition into eclipse mode began in the boarding area as we examined three large high-resolution maps on which Jacques had carefully plotted the eclipse path.

Dunhuang, a desert oasis located in the Ganzu Providence on the Silk Road, would be the base of our operations. Paul had decided it was the best central location for moving groups along the limited good roadways in one of two possible directions leading to the centerline. It also had the nicest accommodations and food. From this vantage point, the four teams, of 18 members each, would have flexibility to swiftly alter plans due to shifting weather conditions and possible changes imposed by the Chinese government. But first, Beijing, shortly before the games were to begin. When our flight was announced, we gathered our carry-on belongings and headed for the

gate. The plane headed west for the next 12 hours, crossed the International Date Line, and arrived in Beijing at 5:00 on Monday evening.

The lines at immigration were short and soon we were off to retrieve our baggage, exchange money, and hail a cab. The high level of security was evident; pairs of paramilitary police appeared everywhere, marching side-by-side in stiff formation, executing sharp 90 degree turns, with eyes, from expressionless faces, staring ahead. We proceeded through the relatively quiet airport until the final x-ray; there, security guards escorted us to an adjoining, closed off area. Jacques's three bags were opened, the contents removed, unwrapped, and closely examined. His equipment often puzzles airport inspectors and on this occasion, the language problem made an explanation difficult. Fortunately, one officer spoke some English, which was very helpful as our Mandarin was painfully lacking. He seemed to understand Jacques about photographing the eclipse and finally signaled that we could repack. We were free to go! Off to the money changers and the taxi queue.

Twenty-five years had passed since my first trip to Beijing. The city was smaller then and had fewer automobiles; mostly bicycles and pedestrians moved along the quiet streets. Now, cars were everywhere and choking thick grey smog enveloped the city like a shroud through which only a hint of the sun was visible. The buildings stood tall and were garishly lit; yet, they appeared foreboding in this eerie twilight. Except for an occasional structure of traditional Chinese architecture, one would never think that this is an exotic city of the Far East. The appearance is more Western in style; like New York City or even Las Vegas.

The following morning the air was relatively smog free with low humidity, a comfortable temperature, and a refreshing breeze, all discovered during an early morning walk of several blocks. After breakfast, and the pleasure of meeting new chasers and greeting friends from previous expeditions, the first group meeting was held to introduce everyone and to provide upto-date information. To be successful, eclipse chasing requires continuous attention to the changing elements.

As the government had canceled our visit to the Beijing Xinglong Observatory three weeks before our arrival, the remainder of the day began with a visit to a Hutong. Many of these old districts were razed to make way for the development that has consumed Beijing in recent years. The traditional shopping stop, followed by dinner at a local restaurant, completed the day.

The flight the next morning required a very early wake up call; too early for the restaurant to be open, so we grabbed a box breakfast as we sleepily dragged luggage through the lobby. The check-in procedure at the airport left many of us confused although we remained in line like good children and eventually traded our checked luggage for the return of our passports and a boarding pass. Then we sat around and waited for the plane. The joys of traveling: Hurry up, wait, ... wait, ... and wait.

Anticipation mounted as we flew northwest. The ground beneath us resembled a lunar surface as it quickly changed from green vegetation to arid brown. Occasionally, along a narrow ribbon of

road that stretched through the endless desert, small objects could be observed moving without a visible destination. Three and a half hours later, the plane taxied to a small building in this desolate but beautiful area.

The original plan upon arriving was to immediately visit the Mogao Grottoes that were between the airport and the city, a common routine. Fortunately, wiser persons on this trip unceremoniously dumped this crazy idea and we went directly to our hotel. Our team and Paul's checked into the Dunhuang Guest House, the teams lead by Claude and Pat into the Grand Sun Hotel a few blocks further, where later in the day we gathered for an update.

Two and three day forecasts of satellite readings from NASA indicated rapid, unusual changes in cloud cover patterns. In addition, the government tossed wrenches into the works by canceling some of the approvals for our movements in the area. We veteran chasers were not surprised by the news; however, for the less experienced, these reports produced verbal annoyance at the uncertainess.

Thursday morning we visited the Mogao Grottoes where over many centuries caves were richly decorated with statues and paintings of the Buddha. When the guide headed for stairs after we visited the magnificent caves on the ground level, I decided to remain on terra firma. Wandering back towards the entrance, I soon discovered myself alone. Sitting in the shade facing this treasury of art and dedication, I found myself imagining: *Buddhist Monks*, in deep meditation with bowed heads, moving slowly along the rickety wooden walkway that defined the second and third level; then hearing the soft rustle of their robes as they quickened their pace in response to the dinner bell that had started to toll. These images will be replayed when this day is remembered.

Fortunately, I decided to skip the afternoon festivities to perform a final checkout out of my equipment and to draw up a photographic plan with a little practice time. Not only did I miss a camel ride, an opportunity to get sand in my shoes while walking up rickety, broken stairs on a sand dune in the hot sun only to be caught in a sudden downpour at the top, pushing oneself down a sticky slide, and then, riding the camel back to the bus, but I discovered I had left a vital part of the tripod at home! Because I spent the afternoon trying to figure out Newton's Law of Gravity to make the tripod usable, so I failed to see the schedule update – posted in the lobby while I was working – until too late, so I missed both the meeting and dinner. Hooray for Peanut Butter Granola bars; never travel without them!

On eclipse day, everyone had a choice. The government finally agreed that additional people, after they paid the road tax, could go to Yiwu. Two buses (Claude and Pat) would leave at 5:00 for a nine-hour journey north to Hami, dropping off five edge observers on the southern border of the shadow before driving east through the mountains. Paul with guide and driver would leave at 9:30, drive south and scope out the area near Gongpoquan. (The government had withdrawn permission for travel to Gongpoquan itself and Inner Mongolia.) Paul planned to drive as far as

he could on this road to see if clear skies could be found before reaching any roadblocks. The remaining group would board the fourth bus at 11:30 and head south to rendezvous with Paul.

At the rendezvous point, Paul reported that real time NASA satellite reports indicated conditions had completely reversed. The Hami area was under the greatest cloud threat and the original destination of our group, Gongpoquan/Inner Mongolia, was not much better. The best possibility was to continue south into an uncharted area to a lake beyond Jiuquan, another three-and-a-half hours of travel time. Totality at that site would be about 7:10 with an estimated one-minute-thirty-six-seconds totality. Instant decisions were made; thirteen joined Paul, ten remained on the bus with Jacques. After the excitement of our decision, everyone settled down for the long drive ahead cautiously watching the sky. The challenge now was to arrive in time for second contact. [Note: First contact is the instant of the start of the eclipse, when the leading edge of the moon overlaps the sun; second contact is the start of totality; third contact is the end of totality; fourth contact is the instant the trailing edge of the moon ceases to overlap any part of the sun, signaling the end of the eclipse. //ed]

At the final checkpoint, we offered a bribe – solar eclipse glasses – and were allowed to continue to the lake. It was 6:40. The sun was now about 17 degrees above the horizon and between first and second contact. Before totality, those with simple set ups had time to pass out solar eclipse glasses to people around us who were using film and other unsafe viewers to look at the partial phase. About four minutes before second contact, Jacques was set up and tracking.

The wind stopped, the sky grew darker. As the narrow crescent of the Sun disappeared, the edge of the Sun was first hidden by the peaks of lunar mountains with the last few rays of sunlight shining through valleys on the edge of the Moon. These Bailey Beads remained visible for a few seconds. Then a single point of sunlight remained; the beautiful 'diamond ring' created against the outline of the Moon. The last ray of light vanished. Totality had begun.



After third contact, we toasted with champagne, looked through Jacques's telescope to see the irregular edge of the moon's valleys and mountains, and interacted with the locals as they also looked through the telescope. (We were the only non-locals.) Excitement was the common language as everyone celebrated this wonderful event together.

We left the site shortly after 8:00, stopping at a lovely hotel in Jiuquan for dinner. Under a clear sky with a multitude of stars twinkling, we drove though the night. We dragged ourselves into the hotel at 4:15, the bus running on fumes. The entire expedition had been successful, everyone was ecstatic, especially Paul. Not bothering to go to bed – a 9:30 departure to Beijing was scheduled – I packed, showered, and started out at 6:15 to wander the Dunhuang streets before breakfast. The waiting game was back; a four-hour delay.

The dinner menu that night was the traditional Peking Duck, and at our table were two astronauts, Claude Nicollier, the first European to join the NASA team, and his friend Richard

(Dick) Richards. During their careers, both had been *up* four times in the shuttlecraft. An appropriate finale for our journey to the other side of the world to view a special event in the sky.

After a late evening of Chinese wine tasting with friends, we had a rather leisurely breakfast the next morning, and time to say good-bye to our fellow chasers. The airport was relatively quiet considering it was only five days until the opening ceremony of the Olympics. A guide was along to assist us with the checked luggage but left us to negotiate the boarding security x-ray. This time, Jacques's carry-on bag was searched, the telescope lens removed and examined.

The plane left 10 minutes ahead of schedule but we did not mind. Settling back in our seats, we were happy. It had been a great week!

The rest of the story ... A week later, the missing tripod part was found, discovered in a basket with photographic items not making the journey.

2: In the high country Sue Wingerson

I went to visit my brother in Dubois, Wyoming towards the end of August this year. The closest airports are in Jackson and Riverton – to arrive at either airport one takes a small propeller plane. Luckily I have flown in Cessnas and so was not perturbed by this.

It took us an hour and a half to drive approximately 70 miles from Jackson to his house because of construction on the single lane road. The summer is the only time road repairs can be done as the winters are so severe. The drive took us through the continental divide from the Pacific side to the Atlantic side. There are mountains in the distance, rolling hills covered in sage brush, and fireweed along side of the road. Clumps of trees grow where the rivers meander through the countryside.

His house is at an elevation of almost 7,000 feet. I was surprised to learn that even at this elevation the mosquitoes can be quite fierce. However by this time of year one encountered very few of them.

The first day I was there, we drove to a nearby spot to take a short hike. My brother packed a gun and bear spray. Apparently, this is serious grizzly bear country and one must take precautions. Most hikes here seem to be only upwards and I could feel the elevation as we moved up to the top of the hill. I could smell the sagebrush that we were walking through. We were hoping to spot elk, big horn sheep, prong horn deer or moose, but we only saw deer scat.

The next day we set out for the Whiskey mountains nearby to hunt for petroglyphs. There were no signs off of the main road or on the subsequent gravel road to indicate where they might be. This information seems to be passed on by word of mouth. We stopped at the first place we were told about and headed up the most worn foot path in the area. After a bit of climbing we found our first petroglyph etched on a rock. One theory is that these drawings were created by

prehistoric natives. Another is that they are graffiti created by adolescent Indians. We continued upward and found another rock with several petroglyphs. It was like a treasure hunt. We looked upward towards a wall of rocks and wondered if there were more. Sure enough there were some. By this time we had climbed a few hundred feet and I was concerned about going back down. It is quite often more treacherous heading down steep inclines with the possibility of sliding on loose gravel. My legs could feel it when we got back to bottom.

Dubois is located in an area called the Wind River. And I can certainly attest to the wind which is pretty much ever-present. It can be quite powerful at times, blowing off your hat and kicking up sand in your face. There is a small town nearby that used to be called Neversweat, and I could certainly understand why it had that name.

Dubois has about 4 restaurants, 2 bars, a grocery store, a couple of gas stations and various gift shops. Summer tourism is pretty much the main income for the town. There is also a very informative Big Horn sheep visitor center and a pioneer village where one can learn about Tie Hacks who built the railroads and a small sheep trap like the ones that the Indians use to build. The Indians who lived and still live in the area are the Shoshone and the Crow. The Shoshone were friendly to the white man as they wanted their support in giving them guns that they needed to defend themselves against the Crow who already possessed guns. Speaking of guns, Butch Cassidy and the Sundance Kid used to hang out in Dubois.

The next drive took us through Yellowstone Park to the Bear Tooth highway. Along the way we saw and smelled sulphurous bubbling pools. Further along there were buffalo running along the roadside. We also passed by a pasture with a herd of buffalo that could be heard from the roadside. There were interesting rock formations created thousands of years ago by volcanic eruptions. We exited Yellowstone at the northeast corner and started the incline of the Bear Tooth highway. Weaving through many switchbacks we ascended to an elevation of almost 11,000 feet. Tall jagged mountains surrounded us. The ground by the road was covered with small tundra plants that grow only for a few months during the summer. The highway is closed from October through May because of the snow.

From there we headed south to Cody, famous for Bill and his Wild West show. Cody has an amazingly large museum which is really five museums in one. Each section focused on a single area of the west: Indians, guns, pioneer life, nature, and cowboys. It took us 2 hours just to see one area.

Heading further south we hit Thermopolis, which boasts to be the largest hot springs area in North America. There is also an exhibit of dinosaurs and archeology diggings. One cannot help but learn about geology in Wyoming. The rock formations show layers dating millions of years prior to the dinosaur era.

On the last drive we went south passing through the badlands to South Pass City south of Lander. The badlands are red layered canyon like walls of rock. In South Pass City there is a pioneer village that has been restored exactly the way it was in its heyday. Emigrants sometimes stopped

there as they passed by on the Oregon Trail. The hotel rooms are barely furnished – a crate sometimes served as an end table. Only one room had a stove for heat. In the winter the guests would find ice on their sheets in the morning. It certainly was a rugged life. And the pioneers were definitely determined folk to persevere through such desolate country, traveling 10-15 miles a day with the hope of better land ahead. Further south one can still see the tracks on the trail left by the wagon wheels.

On the way back we stopped at Sinks Canyon. Here a river flows into a cave and disappears underground for a couple of miles before reappearing. At the visitor center where the cave is, there is a good exhibit showing the different kinds of rock of the layers going back prior to the dinosaur era. Where the river reappears we found two big horn sheep grazing as if they had been staged for us to see them. For the size of their horns, they are small animals – their backs are about waist high.



We headed back to Jackson at the end of my trip and saw a lone female moose along side of the road. It was a good finale to a very interesting time.

3: What you missed: Playland *Not* at the Beach Vicky Jared

The Ex-Ls tour of Playland-Not-at-the-Beach scheduled for September 11 was canceled for lack of turnout, so I thought I should take the tour of Playland-Not-at-the-Beach and give you an idea of what you missed; I'm certainly glad I did.

Playland-Not-at-the-Beach is an interactive Museum of Fun; it celebrates the magic and history of America's bygone amusements: circuses, carnivals, magic, side shows, penny arcades, amusement devices, pinball arcades, haunted houses, and beautiful art everywhere. People of all ages rediscover the joy of being a kid. My friends and I certainly did. If you went to Playland or Sutro's Baths back in the 50s or 60s you were caught up in the rush of wonderful memories of the rides and the Fun House. The only thing missing in the museum were the air holes in the floors that blew up the girl's skirts when going from one area of the Fun House to the other. My sister and I always got caught even though we tried to miss the holes. Marve Gold, one of our tour guides, who worked at Playland when he was 15 years old, told us it was one of his jobs to make sure he tried to trick everyone with the air holes. Also, there is a great photo in the museum of service men standing outside the Fun House windows, watching the skirts fly up.

The tour began with a wonderful magic show performed by a local 14 year old boy who said he has been performing magic tricks since he was three. He did a great job! We then watched two four-minute documentaries about Playland and Sutro Baths. This was something you wouldn't want to miss. We were given detailed information about Laughing Sal (she was laughing), the cars used on some of the rides, and other old artifacts from the Fun House. We then walked from room to room, from the old pinball machines to the various long lost penny arcade games (we

actually did pretty well and won some prizes), to the murals, the amazing 3-D dark room, Santa's Village, a bygone San Francisco miniature city, a hand carved miniature circus, and all the memorabilia about Playland at the beach. Several huge and detailed dioramas, hand made by Don Markus in the 1930s for his son, are displayed. There is something like 300,000 vehicles, figures, animals and other objects that he continued to work on for 50 years.

We stayed for hours and didn't realize how much time we had spent looking around. I certainly will go back again and I hope you will make time to visit the museum.

Playland-Not-at-the-Beach is located at 10979 San Pablo Avenue in El Cerrito, CA 94530. They are open Saturday 10:00AM to 5:00PM. Once you pay your admission fee the arcade games, penny slot machines and classic pin ball machines are free. General Admission \$15, Youths (up to 14 years) \$10 and Seniors (55 years and up) \$10. If you would like to arrange for group visits or special tours, please call Richard Tuck, Master of Fun, for an appointment (510) 232-4264 ext. #25. You can visit their web page (www.playland-not-at-the-beach.org) for more information.

You may be here someday... (from the internet)

After Christmas, a teacher asked her young pupils how they spent their holiday away from school. One child wrote the following:

We always used to spend the holidays with Grandma and Grandpa. Theyused to live in a big brick house but Grandpa got retarded and they moved to Florida. Now they live in a tin box and have rocks painted green to look like grass. They ride around on their bicycles and wear name tags because they don't know who they are anymore.

They go to a building called a wrecked center, but they must have got it fixed because it is all okay now. They do exercises there, but they don't do them very well. There is a swimming pool too, but all they do is jump up and down in it with hats on.

At their gate, there is a doll house with a little old man sitting in it. He watches all day so nobody can escape. Sometimes they sneak out, and go cruising in their golf carts.

Nobody there cooks, they just eat out. And, they eat the same thing every night --- early birds. Some of the people can't get out past the man in the doll house. The ones who do get out, bring food back to the wrecked center for potluck.

My Grandma says that Grandpa worked all his life to earn his retardment and says I should work hard so I can be retarded someday too.

When I earn my retardment, I want to be the man in the doll house. Then I will let people out, so they can visit their grandchildren.

Recent Travellers



The purpose of this column is simply to provide the names of recent (covering only the last calendar year and this one) travellers, so that those who are considering these same destinations might have a potential source of useful information and helpful hints. (Not all of these have been previously reported in the EX-Press.) Please let me know if you think this is a useful addition to the EX-Press. Also, please let me know if you have taken an interesting trip in the last year or so.

Destination	Year	Traveller(s)
China	2007/8	Bob & Valerie Fulton; Sandra Stewart
China/Macau/Hong Kong	2008	Winnie & Tracy Baker
Ecuador (incl. Galapagos)	2007	Janice & Ned Dairiki
French Alps & Geneva	2007	Janice & Ned Dairiki
Italy (& Hungary)	2008	Sig & Cindy Rogers
Japan	2007	Bob & Valerie Fulton; Dave & Sally Stevens
Jordan (Petra)	2008	Janis & Ned Dairiki
Lancaster (CA) Poppy Reserve	2008	Bob & Valerie Fulton
Mexico (Maya Riviera)	2008	Bob & Valerie Fulton
Nicaragua	2007	Don Becky Grether
Oregon Wineries	2008	Dave & Sally Stevens
Philadelphia and environs	2007/8	Dave & Sally Stevens; Brenda Shank & Bud
		Larsh
The Pinnacles (CA St Pk)	2008	Geores Buttner
Peru & Galapagos	2007/8	Suzanne Stroh; Tom & Marcia Beales
Red Rock Canyon (CA St Pk)	2008	Bob & Valerie Fulton
Rome	2008	Janis & Ned Dairiki
Rhine/Main/Danube Cruise	2008	Polly & Ed Fleischer
St. Martins	2008	Bud Larsh & Brenda Shank
Salt Lake City (Mormon Library)	2008	Sally Stevens
Scotland	2007	Janis & Ned Dairiki
Spain	2008	Sig & Cindy Rogers
US Highway 69	2007	Geores Buttner
Utah (parks)	2007	Bob & Valerie Fulton
Wyoming (& bits of MT)	2008	Sue Wingerson

SEE YOU AT THE November 20 LUN	ICHEON
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From:	
I plan to attend the EX-Ls luncheon >> \$25pp <<	PREPAID
I will bring guest(s). Name(s) of guest(s):	
Menu: Buffet; menu selection not applicable	
Would appreciate help with buffet:	
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Bill Black
David Cleveland
John Flambard
Paola Timiras
Emery Zajec

Neil Bartlett
Hugh Bradner
Charles Dees
Clarence Olauson
Glenn White

Welcome New Members

Dennis Collins
Laurel Engenberger
Sherry Fuzesy
Diana Hopper
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Donald Gregerson
Matt Kotowski
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L: November 20, 2008 L: February 19, 2009 L: May 21, 2009 L: August 20, 2009

B: July 9, 2009 B: October 8, 2009 L: November 19, 2009

Board meetings take place in the LBNL cafeteria at 3:00 on the dates listed above; we welcome

attendance by interested members.

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