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How the June 10 eclipse was seen off Mexico's coast

From : Daniel Fischer <dfischer@astro.uni-bonn.de> Reply-To : SOLARECLIPSES@AULA.COM Date : Sat, 15 Jun 2002 15:38:44 +0200

... from the ship Sarape is told in a web story I just put online at <http://www.astro.uni-bonn.de/~dfischer/skyreports/mex2002> - illustrated so far only with some newspaper clippings I collected the day after. Enjoy! Daniel



**The inside of the 4x4 (dusty) after a single trip with Derryl Barr to Chimo
Picture by PP**

Griffith Observatory

From : "Crocker, Tony (FSA)" <Tony.Crocker@transamerica.com> To : "SOLARECLIPSES@AULA.COM" <SOLARECLIPSES@AULA.COM> Date : Mon, 10 Jun 2002 10:07:34 -0700

Although Griffith Observatory in Los Angeles is currently undergoing a 2+year renovation, the LA Astronomical Society will be setting up scopes on the lawn for the 77% eclipse later today. There were many people and scopes there for the Nov. 15, 1999 transit of Mercury. That's where I'll go, weather permitting. Anyone else on SEML going to be there? If the current overcast doesn't lift off, I'll head up the Angeles Crest.

From : Evan Zucker <ez@AbacusTotality.com>

In view of the bad clouds you folks had on 4 Jan 92, and considering today's forecast, I think you'd be better off heading southeast -- east for the blue sky, and south for greater magnitude.

I scouted out various locations around San Diego County Sunday so I could make an educated decision about where best to observe the eclipse. San Diego has the greatest magnitude eclipse of anywhere in the United States.

I live in Scripps Ranch in San Diego. Unless there is a significant improvement in the weather today, which is not forecast, the best we can hope for here is to view some or all of the first portion of the eclipse. For each of the past 3 days, it has been completely cloudy in Scripps Ranch by 6:00 PM PDT, and today it was cloudy at the time the eclipse will begin at 5:15 PM. Mid-eclipse will be at 6:24 PM, and the eclipse ends at 7:24 PM.

I drove to Crest, which is east of and above El Cajon (about 1,500 feet elevation). It has been sunny there each day at eclipse time over the past week, but not Sunday -- it got cloudy by 7:05 PM.

My family and I will be observing from the rest area on I-8 just east of the eastern Willows Road exit (which leads to Viejas Casino) and just west of the SR 79/Julian exit. The elevation there is about 2,000 feet. I was there yesterday at the time the eclipse will end, and the sun did not go behind the clouds until a few minutes later. I like setting up my telescope where members of the public will have a chance to take a look.

If the clouds should be worse tomorrow than today, which is not forecast, then I would continue further east. It's very likely it will be sunny at the San Diego Astronomy Association site in Tierra del Sol. Evan H. Zucker, San Diego, California

Patrick and Joanne's Eclipse Observations

From : "barr derryl" <dbarr@nque.com> To : <SOLARECLIPSES@AULA.COM> Date : Tue, 11 Jun 2002 23:24:53 -0500

Please regard this as advance notification that List Owners Patrick and Joanne Poitevin successfully observed the annular solar eclipse of 2002, June, 10, at Chimo, Mexico, 20d28m N, 105d35m W. Although clouds prevailed during nearly all phases of the eclipse, a nearly perfectly aligned hole permitted the observation of the most crucial and interesting eclipse phases. For approximately 7 minutes just prior to sunset the eclipsed sun was observable through this atmospheric avenue. The nebulous time references herein used will be clarified and corrected in Patrick and Joannes' complete report that will follow upon their return from Mexico. Video, digital duplication and traditional photography recorded the event. Currently Joanne and Patrick are still in Mexico and will file a complete report upon their return. Best Regards, Derryl Barr



Derryl Barr and his dusty T shirt

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From : wasil@belgacom.net To : solareclipses@aula.com Date : Fri, 14 Jun 2002 17:29:27 +0200 (MET DST)

Folks, a failure it was, this was supposed to be my 2nd central birthday eclipse (after 1983 in Java), but this early morning eclipse on tiny Pulau Batuwingkung was essentially clouded out. I spent June 4 till 11th on the Indonesian island of Sangihe, the early morning weather in the capital Tahuna was perfect until Sunday morning broke down with clouds and rain. I did some prospecting for a good observing spot the previous day, went to the village of Manalu on the east coast, chartered a boat, and inspected some small beaches on Pulau (=island) Tehang, which was supposed to be on the center line. Most of the coast line of Sangihe and the tiny islands nearby, is very steep, rising rapidly (in Tahuna, on the west coast, the centrally eclipsed sun would be behind the central mountain chain..) I set off to Manalu again on Monday, and headed by boat to Pulau Batuwingkung, barely 1 square kilometer, with a small hill on the east side, and three small hamlets straddling the southern and western part of the island. I made my mind up fast, to observe from the top of the hill, as the surrounding view was almost perfect. It was not such a hard climb starting at 4h15m on Tuesday morning, all my equipment in a backpack, being guided through the bush (scratches all over my arms and legs and face) by William and some of his friends, making a living on this island as fishermen, and Joly, police agent in Manalu, doing a wonderful job as interpreter. The sky looked OK at the time, with a large clearing in the northeast, but the cloud cover was building again when dawn rose after 5 am, the sun rising at approximately 5h35m local (=UT +8hrs), but behind the cloud. Shortly thereafter the light began to fade down remarkably (central eclipse at 5h55m local), some small holes in the cloud filtering through the tiniest amount of sunlight: accepting I would not see annularity, I was struck by the beauty of nature under the subdued light. The eclipsed sun only showed some 25 minutes later, the small crowd gathering around, were now gratified with some nice views through the Televue 70mm telescope, and I remembered not to forget my birthday. See some of you in South Africa or Mozambique, next december! Wasy1, still spending some time in Sulawesi Utara

Annular eclipse reports and images

From : Jay.M.Pasachoff@williams.edu To : solareclipses@aula.com Date : Mon, 17 Jun 2002 17:29:03 -0400

We have set up a Web page at www.williams.edu/astronomy/eclipse02.annular/ with various reports and photos of the annular eclipse that some of us [barely] saw. My own photos appear there, handheld from the boat. They show the double prong, but aren't as good as Joel Moskowitz's beautiful image.

We will link it shortly from www.eclipses.info. If anybody has more links to supply, please let me know. Best wishes, Jay Pasachoff

From : Jay.M.Pasachoff@williams.edu

Sorry, the correct URL is <http://www.williams.edu/astronomy/eclipse02annular/>

From : Pierre Arpin <parpin@videotron.ca>

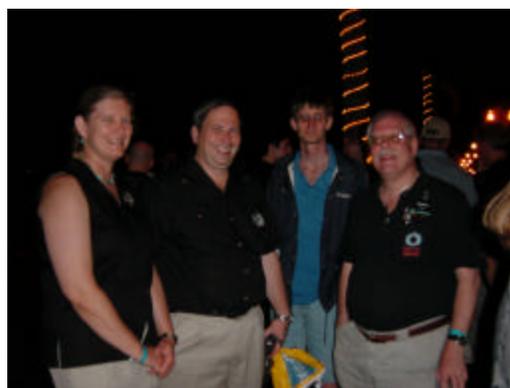
At 17:29 2002-06-17 -0400, you wrote: We have set up a Web page at www.williams.edu/astronomy/eclipse02.annular/

The URL is wrong and should be re written as <http://www.williams.edu/astronomy/eclipse02annular/>

I saw barely the eclipse too from a beach near La Cruz de Loreto. I was visible from a tiny hole at the horizon over the sea.

We were about 300 aficionados coming mostly from university of Guadalajara, many americans and some from France and Canada like me.

I will post some of the pictures I took on that day once I will get them.



**Mrs Franklin, Lloyd Franklin, ?, and Jim Huddle at the meeting in PV 9 June 2002
Picture by PP**

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2**10 June 2002 Eclipse photogallery**

From : " F . P o d m o r e "
<podmore@science.uz.ac.zw> To : solareclipses@aula.com Date : Fri, 14 Jun 2002

Perhaps you al know this but there's an extensive collection of eclipse photos at

http://science.nasa.gov/spaceweather/eclipses/gallery_10june02_page2.html

(and there's Page 1 and 3 too, maybe more as more photos are submitted)

For some reason I can't find a link on the www.spaceweather.com home page to their various galleries of quite a variety of astronomical photos...

I'm glad some of you saw and enjoyed the annular - sorry about those at sea!!
Francis

From : KCStarguy@aol.com

You have to scroll down to the bottom and you will see a list of different galleries (conjunctions, ikeya-zhang and many more). There is quite a collection of nice pictures. Dr. Eric Flescher

Sunset eclipse

From : Francis Graham <francisgraham@rocketmail.com> To : SOLARECLIPSES@AULA.COM Date : Tue, 11 Jun 2002 14:37:39 -0700 (PDT)

Dear List, Having never seen a partial eclipse at Sunset, I went to Ashtabula, Ohio, where the Lake Erie coast is perpendicular to the setting sun's azimuth. It was a beautiful sunset on the lake with the sun in an increasingly progressive eclipse. It set just before maximum. Observed with a small filtered scope that let me fit the whole solar image in. I took pix, but as of this time I am momentary without a website to post them to. Francis Graham

10-11 June 02 - eclipse photos

From : Eric Pauer <pauer@bit-net.com> To : Solar Eclipse Mailing List <solareclipses@aula.com> Date : Wed, 12 Jun 2002 08:29:52 -0400

There are a growing number interesting pictures of the 10-11 June solar eclipse from across North America (and one from Japan) on [spaceweather.com](http://www.spaceweather.com). Check out

http://www.spaceweather.com/eclipses/gallery_10june02.html
http://www.spaceweather.com/eclipses/gallery_10june02_page2.html

Enjoy, Eric Brookline, NH, USA (no eclipse here unfortunately)

Annularity by Christophe Marlot in Mexico, 10 June 2002**A mexican trip !**

From: ccmlt To: SOLARECLIPSES@AULA.COM Date: Mon, 17 Jun 2002

Dear friends, No Glenn, you were not the last to send news ;-) 5 days after returning from PV and Mexico, some images of this trip are now online - at least !.

The eclipse sequence images are taken from a video made with a Sony miniDV camcorder with tele-extender X2. One more time, the clouds on the photos will be the same that on other eclipse shot, 'cause it seems there was only one good spot on the centerline, near La Cruz de Loreto. When coming on this attractive beach at about 2 pm, there was almost nothing else than wind, sand, sea and wind ! We were only six people on that fantastic beach : an eclipse chaser camping on the beach, our friend Pierre Arpin (bonjour Pierre) and his Quebec flag, Dan and Ginger Derose, Christelle and I. Well, not so bad for about 5 km of white sand. Then a car arrived, and another, and another ; then a bus and a dozens of cars, then a couple of buses ... Finally : 400 people ! Glenn was located about 3 meters behind my cameras, so , don't expect great difference between Glenn's nice set of images and my own set ;-) Yet, I included a stunning view of the sky just before the annular phase and a more interesting view of an orange sky just after the sunset. Remember this fantastic sky ? In a mail to the "Chasseurs-Eclipse" mailing list, Pierre Arpin said that he remember some clear holes in the sky that looked green. Can't remember this sights. What about you ? There are such clear gap on the photos, but the sky looks blue-white.

You will find the photos here : <http://astrosurf.com/carnets-astronome/eclisol/2002/eclimex2002.htm>
Home page for other eclipses : <http://www.astrosurf.com/carnets-astronome>

LESS than 6 months to the next sunset eclipse in Australia ! Christophe Marlot

Success??

From : rybrks1@cs.com To : SOLARECLIPSES@AULA.COM Mon, 17 Jun 2002 16:32:17 -0400

To add to David Makepeace's fine commentary, I too had the post eclipse high all the way back on our return to shore. That was proof that for me I must have considered it a success. What are the odds that a sliver of cloud would line up just right in essentially 99.9% overcast skies right at max eclipse time? Too cool.

I sketched up a 2D model of how the eclipse manifested itself to us..maybe I can describe it now that I am not rushing for a plane.

Being right at or just outside the Centerline (I was not going to risk my GPS in all the water sloshing about)..what we had was a reverse-hand letter C to look at. Both the Sun setting off to the right (north latitude) and our boat moving left to right made the Sun move rather fast to the right as it set.

So the horizontal sliver (slit) of opening came across the sun from right to left rather fast. The left side of the slit first showed the right side of the annular ring (it was so thin, you could only see points of light) Then it showed the left side simultaneously. Then the left side of the slit was on the dark part of the (flip-flopped) C with the right still showing. Then the slit was centered on the center left side of the sun so it showed nothing at all. Then the right side of the slit showed the upper left part of the C for a few seconds.

I hope Daniel Fischer gets his video on the net..it came out great. Ray Brooks



Meeting in PV on 9 June 2000. Picture by Ray Brooks P6090234.JPG

Left to right Joel Moskowitz, Glenn Schneider, Craig and Robin Small

From: "Joel M. Moskowitz, M.D." <moskowi@attglobal.net>

On 6/17/02 4:32 PM, "rybrks1@cs.com" <rybrks1@cs.com> wrote: To add to David Makepeace's fine commentary, I too had the post eclipse high all the way back on our return to shore. That was proof that for me I must have considered it a success. What are the odds that a sliver of cloud would line up just right in essentially 99.9% overcast skies right at max eclipse time? Too cool.

Talk about a post eclipse High! I was so wired, driving back from the site on the beach along the dirt road, you would think I was a rally driver, passing cars, busses, etc. I finally calmed down when Glenn Schneider's and Michael Gill's vehicle had a flat from going over the rocks in an attempt to keep up with me. Guess how many eclipse chasers it takes to change a flat?

From : Pierre Arpin <parpin@videotron.ca>

>Talk about a post eclipse High! I was so wired, driving back from the site on the beach along the dirt road, you would think I was a rally driver, passing cars, busses, etc. I finally calmed down when Glenn Schneider's and Michael Gill's vehicle had a flat from going over the rocks in an attempt to keep up with me. Guess how many eclipse chasers it takes to change a flat?

Yes I remember you when finally I drive back to civilization the 20 km of that rough dirt road. I stopped briefly to make sure that everything was under control.

I followed all the way that university of Guadalajara bus who made tons of dust. I had the impression to drive through a heavy snow storm.

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To answer you question : It's take 10 to change that tire, 1 to manipulate the tire and tools and 9 to help him or watch the sky if this one is clear.

From : Glenn Schneider <gschneider@mac.com>

"Joel M. Moskowitz, M.D." wrote: Talk about a post eclipse High! I was so wired, driving back from the site on the beach along the dirt road, you would think I was a rally driver, passing cars, busses, etc. I finally calmed down when Glenn Schneider's and Michael Gill's vehicle had a flat from going over the rocks in an attempt to keep up with me. Guess how many eclipse chasers it takes to change a flat?

Fortunately, the flat tire was the low-point of the day. I would much rather see discussion of that as a "bad" thing on eclipse day than a total cloud-out. But be forewarned if you ever caravan with Joel, he does drive a van like it is his Ferrari!

> Guess how many eclipse chasers it takes to change a flat?

On the way to an eclipse: one in < a minute On the way back from an eclipse: the more the merrier Glenn Schneider

Back from Puerto Vallarta

From : Pierre Arpin <parpin@videotron.ca> To : "Ring of Fire": Date : Fri, 14 Jun 2002

Hello fellow eclipse chasers, I'm back from Mexico where, believe it or not, I saw the annularity through a tiny break in the clouds just 1.5 deg above the ocean with 300 "aficionados" on a hill dominating a beach.

Eclipse site were 20 km north a small village, la Cruz de Loreto. The site was reached after we passed through a riverbed and pretty rough dirt road more convenient for a 4X4 instead of a Tracker I rented in PV.

Wild cheering roared when the annulus appeared through the hole and could be well compared to any totality.

Like a chaser told us after the eclipse, it's never over when it's not over. Yes Yogi Berra is right.

Pierre "IQ89" Arpin The only one and unique www. iq89.com 45 deg 31' 48" N : 73 deg 30' 0" O Alt : 30 m : ICQ 3204677

Clear skies the next day

From : Evan Zucker <ez@AbacusTotality.com> To : SOLARECLIPSES@AULA.COM Date : Tue, 11 Jun 2002

As often seems to happen, one day after the scattered to broken clouds over coastal San Diego during the eclipse yesterday, there wasn't a cloud in the sky today from noon until after sunset.

The same thing happened last December 14, which was completely clouded out and completely clear the next day. Go figure. -- EVAN

From : "76630,2206" <76630.2206@compuserve.com>

1998 was a severe El Nino winter/spring. Central America to the Caribbean, including Aruba, was in a severe drought.

So why did it rain in South Aruba 2 1/2 hours before totality on 26 February?

But then, there have been sudden breaks in the overcast during total eclipses.

And had the eclipse happened on 8 March 1970, most of the US part of the path would have been involved in a nor'easter.

Go figure. Cliamte is what you expect; weather is what you get. -- Joe Rao

Richard Nugent and his girlfriend with Mark Egan in PV 9 June 2002.

Picture by PP



ECLIPSE 2002 Annular

From : "76630,2206" <76630.2206@compuserve.com> To : "INTERNET:SOLARECLIPSES@AULA.COM" <SOLARECLIPSES@AULA.COM> Date : Tue, 11 Jun 2002 00:20:18 -0400

Elisabeth and I got to see the partial eclipse at sunset near Anderson, IN. This was a first for both of us.

We had to drive 90 miles (140 km) south of Fort Wayne to get out from behind thunderstorm anvils. There was cirrus from weather along the IN-IL border that obscured the sun close to the horizon, but gave us a nice solar filter for a minute or two.

Such a scenario, by the way, has me wondering about Australia in December. I have not yet decided on a destination. All one 'needs' is a line of cirrus within 150-250 miles of the eclipse path and the whole event is in jeopardy.

(Any ideas on the effect El Nino may have on the eclipse path?) cheers/Robert B Slobins

From : Evan Zucker <ez@AbacusTotality.com>

At 09:20 PM 6/10/02, Robert wrote: Such a scenario, by the way, has me wondering about Australia in December. I have not yet decided on a destination. All one 'needs' is a line of cirrus within 150-250 miles of the eclipse path and the whole event is in jeopardy.

Very true -- that's precisely why it's so risky to try to view an eclipse near sunrise or sunset. -- EVAN

From : "76630,2206" <76630.2206@compuserve.com>

I spent three years of my life in an area somewhat similar to the Aussie Outback: Laredo, Texas. I am used to temps > 40 C although the snakes and flies were quite scarce in the ranchland when it gets that hot. As the sun set, the winds pick up to 20-30 knots as cooler air rushes in from the Gulf of Mexico two hundred miles away.

Most of the time in June there the sky is clear. However, there would be weather over mountains 80-250 miles away and that would make sunset, shall we say, earlier. And, as I mentioned before, what effect would an El Nino, predicted to peak at that time, have on S. Africa and Australia?

The requirements for Australia would be that it be clear for at least 250 miles west and northwest of the eclipse path.

Also, atmospheric extinction would be a factor. How much corona would one be able to see within 5 degrees of the horizon? cheers/Robert B Slobins

From : Michael Gill <eclipsechaser@yahoo.com>

"76630,2206" <76630.2206@compuserve.com> wrote: Also, atmospheric extinction would be a factor. How much corona would one be able to see within 5 degrees of the horizon?

The 1999 TSE was photographed at the sunrise portion of its track by two airborne expeditions and by several people on board the 'Regal Empress' cruise ship: http://www.chapman.edu/oca/fa_oceaclipse_rao.html

The photo on this page shows inner corona silhouetting the lunar disc, despite photosphere being visible.

Some photographs of the totally eclipsed Sun actually *on* the horizon were reproduced on page 41 of the October 1991 edition of Astronomy Now. The eclipse concerned was July 11th 1991. The text accompanying the photos states: "While on holiday in Brazil, Clive Gockson took this picture of the total solar eclipse of the Sun back in July. For this shot he, his wife and three friends travelled 500 miles from where he was staying to a calculated spot at the end of the path of totality. He relied on atmospheric refraction in his computations; as it turned out, he writes 'totality happened just before the lower limb of the Sun reached the horizon and third contact occurred as it slipped down'."

The photos show a very reddened corona. No details are given about the lens or type of film used.

A similar, but not identical, photo can be seen online at: <http://www.cdepa.pt/sol.jpg>

So, although some absorption is inevitable I think corona should be easily visible with the totally eclipsed Sun at <5 degrees altitude if meteorological conditions are favourable.

Are there any other pictures of a totally eclipsed Sun setting online? Michael Gill

From : "Crocker, Tony (FSA)" <Tony.Crocker@transamerica.com>

El Nino increases the chances of drier than normal weather in both southern Africa and Australia. I have done quite a bit of statistical analysis of the 7 El Nino years since 1973 with respect to winter snowfall in the western U.S. and Canada, and also consulted extensively with Seattle meteorologist Larry Schick on the topic.

One of the points Larry always makes is that all El Ninos are not equal, and that only the really strong ones (1982-83 and 1997-98) are that important. Australia had a disastrous summer fire season in 1982-83. The currently developing El Nino is expected to be mild to moderate. However, one of El Nino's strongest impacts is increasing precipitation along the west coast of South America, and Portillo in Chile (latitude 32 south, altitude about 9,000 feet) has already had 212 inches of snowfall as of June 7.

From : "Crocker, Tony (FSA)" <Tony.Crocker@transamerica.com>

Direction of sun in Aussie summer sunset will be southwest. I'll be interested in Glenn Schneider's take on this issue, as he is going for an extreme sunset location with sun elevation of 1 degree. That's probably why he's reserving a small plane for backup.

From : "Crocker, Tony (FSA)" <Tony.Crocker@transamerica.com>

I took my 13-year-old son Andrew to Griffith Observatory in Los Angeles yesterday. There were no clouds in L.A. in any direction from 2PM until well after sunset. There were about 15 telescopes set up on the lawn but considerably more spectators, plus at least 3 local TV news vans, than for the transit of Mercury in Nov. 1999. The most popular scope with the spectators was a 19th century brass refractor, about 10 feet long.

Most of the spectators had purchased cardboard viewers sold by the observatory. Unlike past years, the filter elements were glass, and I considered buying one to hold over the lens of our new camera. Then I ran into a man from Thousand Oaks Optical who was selling various size screw-on solar filters. He fortunately had a 72mm. available for my 28-300 lens, which I gladly purchased for \$25. Unfortunately an obnoxious park ranger observed our transaction and told him to leave the observatory grounds.

I looked for natural crescent shadows from vegetation and couldn't find any. I thought they would be harder to find at low angle. They were all over the place at Lake Balaton in 1999 as there was a planted strip of trees between the lake and the parking lots. Someone used a mirror to project 2 large crescents onto Griffith's front facade.

I noticed the cooling effect much more this time. It was hot at 5:30 and mildly chilly from about 6:30 onwards. At 6:22 eclipse peak, magnitude was 77% and obscuration 71%.

Wearing our t-shirts from 1999 attracted some interest. There were a couple of people with Zambia T-shirts, but I didn't meet anyone else planning on a December trip. An L.A. Times reporter interviewed Andrew for awhile. Then I came over and put in my 2 cents worth. We didn't make the cut. Today's L.A. Times article was mostly about people at Griffith, but there was a final paragraph about Fleet Center in San Diego. Supposedly people were watching it directly through filtered clouds there.

The Griffith Observatory lawn is a worthwhile place for events like yesterday, especially if you don't own a telescope. We met a few other eclipse chasers, but no one like the man Evan Zucker met. A few of the L.A. Astronomical Society left their scopes up past sunset, so we grabbed a quick bite to eat and came back later, as Andrew wanted to see Jupiter and its moons.

From : "Pierre Arpin" <parpin@hotmail.com>

The contrary can be true too, and I know the meaning of that. By a matter of pure luck I saw the annularity in La Cruz de Loreto en Mexico through a hole at the horizon.

Could you just imagine that the sky was almost overcast except that samll break in the clouds at the right place and time.

A We were 300 persons, mostly Mexicans and Americans who cheered wildly when the ring of fire appeared just 1.5 deg above the horizon.

S I skip the Australian eclipse because my peso of the North, like the americans like to nickname our canadian dollar, can't afford it. Take care

E From : "76630,2206" <76630.2206@compuserve.com>

Pierre: Fantastic! Got pix? cheers/Robert B Slobins

From : Fraser Farrell <fraser@trilobytes.com.au>

2 On Tue, 11 Jun 2002 23:34, 76630,2206 wrote: And, as I mentioned before, what effect would an El Nino, predicted to peak at that time, have on S. Africa and Australia?

0 For South Australia; 40+ degrees C daytime shade temperatures, for many days at a time. No rain at all, for many weeks at a time. The occasional huge bushfire. And shops running out of icecream...

0 The one thing El Nino generally _doesn't_ bring us, surprisingly, is water restrictions in the towns and cities. We build big reservoirs, because droughts are a fact of life here! cheers,

2 From : Glenn Schneider <gschneider@mac.com>

Fraser Farrell wrote: For South Australia; 40+ degrees C daytime shade temperatures, for many days at a time. No rain at all, for many weeks at a time. The occasional huge bushfire. And shops running out of icecream...

>

> The one thing El Nino generally _doesn't_ bring us, surprisingly, is water restrictions in the towns and cities. We build big reservoirs, because droughts are a fact of life here!

So much for my analogies of S. Australia to the Tucson/Sonoran desert area. We have PLENTY of ice cream - the rest sounds the same though But, no ICE CREAM... Hmm... maybe I should go to Africa. -GS-



Meeting in PV on 9 June 2002.

Picture by Ray Brooks

P6090230.JPG

Left to right Daniel Fischer, nose of Klipsi, German fellow black shirt (forgot his name), Glenn Schneider, new addition Jeff Jolin from Calif, unknown fellow, Michael Gill

ECLIPSE 2002 Annular - Low angle view

From : Glenn Schneider <gschneider@mac.com> To : SOLARECLIPSES@AULA.COM Date : Sun, 03 Jan 1904

"Crocker, Tony (FSA)" wrote: {in prely to Robert Slobbins} Direction of sun in Aussie summer sunset will be southwest. I'll be interested in Glenn Schneider's take on this issue, as he is going for an extreme sunset location with sun elevation of 1 degree. That's probably why he's reserving a small plane for backup.

My "take" on this is more subjective than objective, and I'll state and admit that fully up front. First, I am biased by two things: (a) living in Tucson, Arizona and (b) having always wanted to see a total at or near sunset - but I have discussed the latter before - though for background see: http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/ECLIPSE_02/ECLIPSE_2002.html though some of the discussion there is a bit stale as plans have evolved and matured.

Actually, I am electing for a PRIMARY site where the solar altitude will be ~ 1.3 degrees above the horizon at mid eclipse, which is at (or very near) the airstrip at Fort Grey. *IF* and >>ONLY<< if we have exceptional transparency with nearly 100% certainty of an unobscured (by cloud or "Schmutz" in the air) of seeing the eclipse, I would consider doing a short hop in our contingency plane to the Tickalara airstrip to see the sun ON the horizon at totality. I had not mentioned this to my eclipse chasing compatriots yet so they may be surprised to hear it hear first - but consider it...

As to point (a) above. I believe the summer weather here in the Sonoran desert is much closer to the conditions which will prevail near Ft. Grey then in Lored, Tx (which Bob wrote about) except during our very short monsoon season: HOT, DRY, HOT, EXTREMELY CLEAR, and did I say HOT? We really haven't hit our hottest part of the year yet - it's only mid-June after all, but my well calibrated thermometer in the shade has been hitting 107-108F (42C) each afternoon lately, though I heard driving to work today it will be cooler and "only" 105F. So temperature for me is not an issue (well, it's an issue, you do have to be prepared for it, but 40-45C is pretty much what I'm used to 4 months of the year). It is the "EXTREMELY CLEAR" part I am counting on (aka. hoping for). Most nights, we have blazingly bright sunsets on the horizon. The very dry conditions give rise to much less extinction than U.S. "easterners" or air-polluted city dwellers are used to. Of course you cannot escape Rayleigh scattering, and yes, we occasionally get blowing dust which mucks things up, but you would be surprised how bright the sun is on the horizon. (I've often cursed it driving into its glare westward toward Kitt Peak at sunset - but you didn't hear me say that). But reducing the aerosol (and water vapor) content helps a LOT. Now, I will not draw too much of a parallel between the climatic conditions at Ft. Grey and Tucson, but IF we get "lucky" and have dry desert eve we could have a very acceptably low-extinction view toward the Sun (but, yes, this is why we will have a plane).

Extinction, of course, is VERY difficult to predict at or very close to the horizon as it is so dependent of the particulate density and water vapor content along the air-column on the line-of-site. It's not at all like secant(zenith distance) when you get to low altitudes (under clear skies its actually much better). There are two major components, rayleigh scattering (by the air itself) and aerosol scattering (particulate, water droplets, dust, etc.). Rayleigh scattering is wavelength dependent, but lets consider 0.5 micron light. Then the extinction in stellar magnitudes is:

$$A(\text{rayleigh}) = 0.145 \exp(-h/8) \text{ stellar magnitudes per airmass}$$

The aerosol extinction is VERY hard to predict as noted above. Here I quote Schaffer (1992) who clearly said aerosol extinction "is rabid . . . because the aerosol component varies greatly on all time scales". Functionally it is simply:

$$A(\text{aerosol}) = A(0) * \text{wavelength}^{(-\alpha(0))} \exp(-h/H)$$

The problem is knowing what A(0) and alpha(0) are. "Typically" under good conditions A(0) is about 0.05. Typical alpha(0) values are quite variable, typically a value of 1.3 is used as "representative". At 0.5 microns then as an approximation you get:

$$A(\text{aerosol}) \sim 0.12 \exp(-h/1.5) \text{ with quite a bit of uncertainty.}$$

Here, h is the observer's altitude above mean sea level in kilometers, and H is the atmospheric scale height. You usually see H quoted at about 1.5km, but from the Australian desert in high summer the air will be more rarefied and could be more like 2-3km.

Brad Schafer also, some time ago pointed out that at low elevations (like for a sunset eclipse) extinction due to Ozone is also important. He estimates that "typical" ozone extinction values are like 0.02 mag per airmass.

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Putting this all together one might expect "typical" extinctions of a factor of about 1000 for 1-degree above the "horizon"! The gradient is large, at the horizon it is about 100 times greater than at 2 degrees above the horizon - so you should expect the "top" of the corona to be much brighter than the bottom, but the error estimates on both of these are VERY large.

I will try to dig up some references on this and post them - but the bottom line is, YES:

- (a) the corona, etc. will be much fainter at the horizon
- (b) there will be a brightness gradient with altitude (zenith distance)
- (c) and not discussed, but of course, a geometrical and chromatic distortion due to refraction.

Remember, though, in terms of brightness it's a contrast game of the corona vs. the sky brightness. This brightness of the background sky will ALSO be attenuate by the same amounts, so if you are dark adapted (WEAR AN EYEPATCH BEFORE THE ECLIPSE!) the diminution of coronal due to extinction should not be a problem for the dynamic range of the human eye. Consider this: The integrated brightness of the corona is about magnitude -14 (visual magnitude) give or take factors of a few. If it really is attenuated by a factor of something like 8 magnitudes that's -6, which is only about 5 times brighter than Venus. But you really have to think of surface brightness not integrated brightness.

I.e., it should look pretty interesting! But I wouldn't do it without a plane standing by. Now, let the debate begin... -GS-

P.S A VERY useful reference is the RCA Electro-Optics Handbook (Technical Series EOH-11)

Great San Diego eclipse

From : Evan Zucker <ez@AbacusTotality.com> To : SOLARECLIPSES@AULA.COM Date : Tue, 11 Jun 2002 00:56:48 -0700

We enjoyed a beautiful 80% magnitude eclipse in San Diego. The weather unexpected cleared up to a large degree, resulting in nearly the entire county able to observe at least some of the eclipse. However, clouds did start moving in from the coast during the eclipse, and so I was glad that I chose to observe about 30 miles east at 3,000-foot elevation at a vista point on Interstate 8 (32-50N, 116-40W). I didn't mind giving up 1% of magnitude in exchange for cloud-free skies.

I was sorry to see such extensive clouds in Puerto Vallarta at <http://www.live-eclipse.org/eng/index.html>. From the looks of the video, I don't think the folks at PV saw the entire annulus. It looks similar to the clouds we had in San Diego for the 4 Jan 92 ring of fire sunset eclipse except that we were fortunate that the clouds obscured only a small portion of the sun, at least south of Camp Pendleton; Los Angeles was completely clouded out then, but not this time.

This was a special eclipse for me because my younger son turned 5 on June 10, and he had been looking forward to his "birthday eclipse" for many months. Not surprisingly, I suppose, he was most excited seeing the eclipse with his own eyes through a solar filter. He enjoyed the much larger view through my 8" LX200, but it was a more "detached" view.

He and the other kids there also enjoyed the crescents formed by my colander (spaghetti strainer), the leaves in the trees, and by small circles we made with our fingers. The only mishap is that one of the kids dropped and shattered one of my pieces of No. 14 welder's glass, which was about 20 years old. That's why I always have backups.

We definitely noticed the air cooling and the sun and sky dimming as maximum eclipse approached. For whatever reason, the wind died down -- it had been relatively breezy when I arrived 80 minutes before first contact. The most interesting visual effect was that the shadow of my straw hat was sharper on one side than on the other side near maximum eclipse. And, of course, all the shadows were sharper than usual.

At mid-eclipse, the sun was 17 degrees above the horizon and still blindingly bright, which was good because it ensured that none of the children would violate my instructions and try to look at the unfiltered sun (if they were so inclined). I glanced at the sun and could just barely discern the crescent with unfiltered eyes. (Kids, don't try this at home <g>.) When I closed my eyes, the after image was a crescent.

In contrast to San Diego being the best place in the U.S. to observe this eclipse, San Diego will be the worst place in the U.S. to observe the next U.S. solar eclipse, on 2005 Apr 8. Of all the places in the country that will see some portion of partiality (and about one-half of the U.S. won't see any), San Diego will have the very lowest magnitude and shortest duration -- about 3% and 13

ASE 2002

minutes, respectively.

2012 May 20 will be a lot better. I would love to try to observe it at sunset in the Texas panhandle, but that is in the middle of Tornado Alley, and May is the peak of tornado season. Consequently, thunderstorms are quite common that time of year, and so the drier desert states, such as Utah and New Mexico, may be more promising. How about photographing annularity beneath an arch in Arches National Park! Evan H. Zucker San Diego, California

Just Back from PV

From : "Joel M. Moskowitz, M.D." <moskowi@attglobal.net> To : <SOLARECLIPSES@AULA.COM> Date : Tue, 11 Jun 2002

Just back from Puerto Vallarta. Basically a cloudout EXCEPT for a broken annulus seen through some small breaks in the clouds on the horizon. -- Joel M. Moskowitz, M.D. 7 (total) solar eclipses and counting

Last to return (?) from PV & Commentary

From : Glenn Schneider <gschneider@mac.com> To : SOLARECLIPSES@AULA.COM Date : Sat, 02 Jan 1904

All, Despite Pat's possible admonition about "personal" posts to SEML, I must say what a real pleasure it was to have had the opportunity to meet and talk with so many of you I have gotten to know only "virtually" over the past few years at the Hard Rock Cafe and on eclipse day at the centerline site. And my special thanks to Pat for acting as a catalyst which made this confluence happen. Perhaps it was spontaneous, but without SEML I have my doubts. My only regret there is I had so little time to actually talk to him (and many others) as having my 8 year old daughter along forced a very early evening - perhaps another day and another eclipse. Having spent nearly a week in PV, and just now catching up on my overstuffed email boxes, I see reports and comments, many echoing my own thoughts, from many of you and many others. So, I'll try not to be redundant here as I was at the same site as Joel Moskowitz, Fred Espenak (after all these years and eclipses Fred and I were finally at the same site - a first - but separated by about 100 meters), Pierre Arpin, Jim Huddle, Michael Gill, and many others.

Nature conspired to herd most of us seeking centerline to a single spot this time - for better or worse, unlike when we disperse across the globe as will happen in December when we straddle two continents. So, I took this opportunity since "I don't do annulars" (or so I have said on my web server, but I suppose I'll have to amend that to say I "usually don't do annulars") to observe eclipse chasers observing clouds (and an eclipse, of course!).

I had a brief discussion about this with Michael Gill, but I think I will always remember this as the "glass half full" eclipse. The amazing story story of the tiny sliver of a hole in the very high pervasive and long lasting opacity clouds, just at the right time and right place, which we ALL seemed to get a piece of - even those stability challenged on the "high" seas (very glad to hear Ray Brooks and Jay Pasachoff got their piece of it too) has been told here as well, and beautifully portrayed in the frame grad from Joel Moskowitz's video he shared with us. Yet consider an inverted chronology of events leading to the same results. What if we awoke to a cloudless clear steel-blue sky - made our 100+ km trek over bumpy roads and fording creeks to a magnificent vista of a blazing sun heading toward an unobscured horizon. But then, just before the onset of annularity a small loan cloud partially obscured the sun leaving us "only" to see annularity in slices through small breaks in the cloud. Oh! How we would hear tales of woe and agonizing "we came THAT close, say a bit of it, but that DAMN tiny cloud!". Invert the parity of the sky coverage and we feel blessed (as we were) to be given a truly unexpected break. We were all so happy to never have seen the entire solar disk at one



Meeting in PV on 9 June 2002
Picture by Ray Brooks
"P6090239.JPG Nice shot of you and Joanne"

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time, just slices of the partly cloud-obscured ring. Me? Of course I was happy, elated actually. When the first bit of sunlight broke through with only moments before sunset, giving us a glimpse of annularity, I knew that the prayer Joel M. had offered up at unseen 1st contact was answered. Still, I cannot help to think how miserable we would all have been if we say the same thing but started the day under ideal eclipse viewing conditions. Of course, if this were a total THEN I would be grumbling!...

No photos here yet, as I am just unpacking and will get the film in today, but given I was only about a meter from Joel I doubt anything I have would offer a new view. Thus far I have not heard of anyone out or over the Pacific who had seen annularity unobscured - but I may have missed this in one of the posted links. Does anyone know if this was seen? Now it's time, back to work on TSE 2002 and 2003. Glenn Schneider

From : Daniel Fischer <dfischer@astro.uni-bonn.de>

Glenn asks about the fate of the observers on the Northern Marianas: I have heard back from a friend who went to Tinian and has just sent me a breathless report (in German) from which I gather that the cloud situation there had been complex as well but that the eclipse itself was visible through a very clean cloud hole. As in 1999 it was possible to see the chromosphere and the inner corona in the viewfinder (with proper precautions taken), and Baily's Beads were great, as expected. The AP picture www.astro.uni-bonn.de/~dfischer/skyreports/mex2002/mexpo-an.jpg seen in many Mexican papers probably came from that location, too. Paul Maley was there as well and reports success - stay tuned for his report. Daniel (who will have the first grabbed video stills from the Sarape on the weekend)

From : "Crocker, Tony (FSA)" <Tony.Crocker@transamerica.com>

Glenn's "inverted chronology" was precisely what happened to me at San Clemente on 4 Jan. 1992. And so was the expected psychological reaction: definitely a disappointment. That was my first attempt at a central eclipse, but after reading all the PV reports I realize now that the glass was only half empty.

LIVE! ECLIPSE 2002 Annular

From : "Dale Ireland" <direland@drdale.com> To : <SOLARECLIPSES@AULA.COM> Date : Mon, 10 Jun 2002 18:21:53 -0700

I have it on my webcam right now Dale <http://www.drdale.com/cam>

From : Alejandra León-Castellá <leonale@racsa.co.cr>

Wonderful. I have been trying to follow it up and could only reach it through Olivier in Puerto Vallarta, with much cloud cover. Your images look very clear. Thanks for sharing the view. Alejandra

Puerto Vallarta Eclipse

From : rybrks1@cs.com To : SOLARECLIPSES@AULA.COM Date : Tue, 11 Jun

We got to see a unique eclipse on a ship that left at 4pm from PV.

Turned out to be the ship Jay Pasachoff setup.

Ship rocked and rolled all the way out for 3 hours. Dozens of of the 160 people got sick immediately.

But we saw the eclipse right at maximum thru a sliver...very cool. We had gotten inside the north limit but turned around after trying to stop.. it just got too rough standing still and he did not want to come about again because we rolled big time coming about. So we were just outside the limit at eclipse. The gift ship got 100% trashed..lot of life jackets being worn..quite an adventure. GOTTA CATCH MY FLIGHT RAY BROOKS



**An American Mexican from Monterey with Jay Friedland at the 9 June meeting in PV
Picture by PP**

Puerto Vallarta Eclipse

From : rybrks1@cs.com To : SOLARECLIPSES@AULA.COM Date : Tue, 11 Jun 2002 11:34:09 -0400

We got to see a unique eclipse on a ship that left at 4pm from PV.

Turned out to be the ship Jay Pasachoff setup.

Ship rocked and rolled all the way out for 3 hours. Dozens of of the 160 people got sick immediately.

But we saw the eclipse right at maximum thru a sliver...very cool. We had gotten inside the north limit but turned around after trying to stop.. it just got too rough standing still and he did not want to come about again because we rolled big time coming about. So we were just outside the limit at eclipse. The gift ship got 100% trashed..lot of life jackets being worn.. quite an adventure. GOTTA CATCH MY FLIGHT RAY BROOKS

PV eclipse report

From : Fred Bruenjes <fred@moonglow.net> To : SOLARECLIPSES@AULA.COM Date : Wed, 12 Jun 2002

Hello all, I just got back from Puerto Vallarta after traveling there to observe the annular eclipse. I was clouded out of annularity but I got to see an 89% partial on the road east of Cruz de Loreto. The full story with pictures, including a shot of the SEML meeting at the Hard Rock is here: <http://www.moonglow.net/eclipse/2002jun10/> Fred Bruenjes fred@moonglow.net

From : "Crocker, Tony (FSA)" <Tony.Crocker@transamerica.com>

The "two points" picture Fred took is EXACTLY what we saw from San Clemente on 4 Jan. 1992.

ASE 2002 "Cloud Scan" Photographs

From: Glenn Schneider To: SOLARECLIPSES@AULA.COM Date: Thu, 20 Jun 2002 20:24:07

Later than most, due to my extended stay in Mexico, I have now put a sequence of images from ASE 2002 on my web server at:

http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/ANNULAR02/ANNULAR_2002.html

This is not yet linked to my other pages, so you'll have to go there directly, and there is not much verbiage at this time - but the images probably speak for themselves. These were taken from the same centerline beach location which has been written about by several on the SEML list. If the clouds look familiar, yes, this was the same vantage point from which the images Joel Moskowitz posted earlier were taken. We were only about a meter apart, Joel to the South. I was the one on centerline ;-)

Note: These images and the QuickTime movie linked on that page were rendered for web display and look as I intended on my Mac. They look much darker and higher contrast on my Sun/Sparc and on Windoze boxes. This is because Macs use a default gamma for display of 1.8, whereas the windoze world uses 2.2. So, it it looks a bit dark and high contrasty to you you can adjust the brightness/contrast on the QuickTime viewer also pointed to on that page. Cheers, Glenn Schneider

From: Paul M. Rybski

Dear Glenn, Couldn't you output this in JPEG format to compress it down for us 56KB folks? 18 Mbytes at 24-52KB is a substantial amount of time! Paul Rybski, Physics, UW-Whitewater

From: Glenn Schneider

Hi Paul, To make the "movie" from the individual frames I tried several different compression formats and they ALL degrdaed the image quality more than I liked. Sorensen B worked pretty well, but I was not sure if that particular Codec was generally available

in the non-Mac world (is it?). JPEG compression was not particularly good. I'm open to suggestions if you have a specific idea in mind! I realized the "Movie" would be a bit large for limited bandwidth connections, which is why I put the mosaic of the frames from which the movie was made on the page AS a JPEG (re-rendered without loss by Photoshop 6), and is 1/20 the size (888Kbytes) of the movie. Cheers, Glenn Schneider <http://nicmosis.as.arizona.edu:8000/>

From: Glenn Schneider

FYI, If you reload (be sure to reload if cached):

http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/ANNULAR02/ANNULAR_2002.html

I've added "Part 2" of the eclipse as it re-emerged through a lower hole in the clouds. And, there is a very interesting rendering of the frames I posted earlier by Lonnie Pacheo into a composite. Cheers, Glenn Schneider

The All-important SE Report from Rochester NY

From : Madden <iluvex@netacc.net> To : SOLARECLIPSES@AULA.COM Date : Tue, 11 Jun 2002 12:04:18 -0400

I got the county Water Authority to allow me to climb the water tower (20 meters) down the road to set up on the relatively flat "summit" for an attempt at the 2 degree / 5% / 15 minute graze. At exactly 10 minutes before FC, the clouds moved in from the west and that was that.

At least I now have a good relationship with the Water Authority. madden

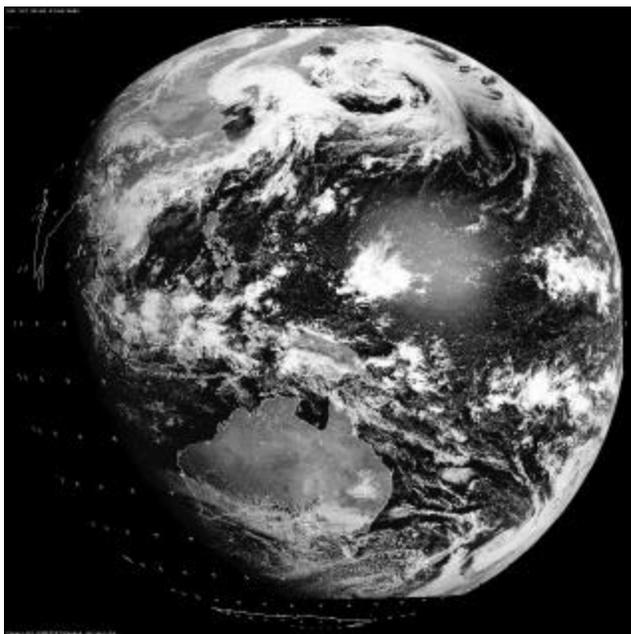
The Antumbra on June 11th/10th 2002

From : Michael Gill <eclipsechaser@yahoo.com> To : Patrick Poitevin <Patrick_Poitevin@Hotmail.Com> Date : Mon, 17 Jun 2002 08:58:31 -0700 (PDT)

Patrick, A satellite view of the antumbra over the mid-Pacific as seen from space can be seen here:

http://www.sat.dundee.ac.uk/pdus/JV/200206110000JV1_g.jpg

If you need to register, you can do it for free here: <http://www.sat.dundee.ac.uk/registerql.html> Cheers, Michael



A June 10th eclipse account...

From: Pierre Arpin To: SOLARECLIPSES@AULA.COM Date: Mon, 24 Jun 2002 23:15:19

... can be read if you go on this page. www.iq89.com/eng/astro/rapport-2002-eng.html enjoy !

How did everyone's pictures turn out?

From: Egan Mark To: SOLARECLIPSES@AULA.COM Date: Mon, 24 Jun 2002 07:30:22

Hey Everyone, It's been great to see the numerous fascinating pictures that were taken at June's eclipse.... especially the ones taken from in and around Puerto Vallarta.

For those of you who haven't shown us your pictures, how did they turn out?

I'm especially interested in finding out about pictures taken with long focal length lenses. Most of what I've seen (including my own) seem to have been taken with medium- focal length equipment (300-500 mm) But I talked to at least one person who was shooting at 1000mm focal length.

As for my results, I actually have something workable! I didn't think anything was going to come out, since I was shooting so fast.

The frames are a little dark, but I believe I can get a good result from them. I can't wait to see an enlarged print.

Unfortunately, my video is slightly out of focus right at the critical moment (ouch!) but the audio is classic.... myself and Pierre Arpin yelling with glee at the miracle clearing we were witnessing.

Had the eclipse been clear, my plan was to take pictures with a big lens zoomed in on the sun, then to take wide angle pictures with 2 cameras-- one facing east, and one facing west, to record any interesting lighting effects. Then I wanted to do some video, zoomed in on the sun.

A few minutes before annularity, I officially resorted to plan B: ignore the sun. No reason to zoom in on the clouds, I thought. So I put a wide- angle adapter on my camcorder and took more pictures with my 2 cameras with wide angle lenses on them.

What I didn't have was a plan C: what do do if a sudden clearing appeared! When Pierre Arpin yelled out "Oh!", alerting those in his vicinity to the appearance of the sun, right before the crucial moment, I started rushing around.... I needed to zoom in on the sun again, and there was not much time to do it! Hence the blurriness of my video-- and my pictures seem to have some vibration to them. Oh well. It was certainly exciting to experience!

By the way, some have commented on the picture taken by on "page 3" of the spaceweather.com eclipse gallery. When I first looked at that shot I thought "Whoa! Someone got more of the ring than we did!" (referring to the first of their 2 pictures.)

But there's a catch: it's a composite.

Here's part of their response to an e-mail I sent them:

WE SAW THE VERY SAME THING. IN OUR MAIL TO SPACEWEATHER WE DID MENTION THAT THE FIRST PICTURE IS A MULTIPLE EXPOSURE. THE SECOND PICTURE IS AN INDIVIDUAL FRAME. WE HAVE ABOUT 24 PICTURES OF THE SUN WHERE IT SHOWS AS A PARENTHESIS, BUT WHEN I MADE A ANIMATION SHOWING THE MOVEMENT OF THE CLOUDS OVER THE SUN IT WAS CLEAR THAT IN SOME WAY THE CLOUDS HELPED TO "SCAN" THE SUN, SO I ASEMBLED 11 IMAGES IN PHOTOSHOP, AND THE RESULT IS VERY PLEASING BUT IT DOESN'T REPRESENT WHAT WE SAW THAT DAY (SIGH!)

WERE YOU THE GUYS WITH 3 BUSSES AND A LOT OF TENTS? WE DROVE AROUND YOUR SPOT THE

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DAY BEFORE IN 2 CARS, INCLUDING A VW CONVERTIBLE. WE WERE ABOUT 2-3 KM TO THE NORTH, I SUPPOSE YOU WERE IN A BEACH CALLED PUNTA PENITAS.

It's too bad that SpaceWeather.com did not relay the fact that the first picture was a composite.... I really was under the impression that someone saw that much sun at annularity!

Anyway, lots of good memories from this one. And one of them is soon to be framed on my wall. Best Regards.

From: Glenn Schneider [save contact](#)

I see I had forgotten (in my haste) to note that the images I posted on my web server: http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/ANNULAR02/ANNULAR_2002.html were taken with a 400mm lens - right in the ballpark of your 300-500mm posting. I had chosen this format which gives an appx. 7-degree FOV to have allowed for a nice reflection of the eclipsed Sun off the water (compromise of field of view and resolution), but of course, the clouds had other ideas... Glenn Schneider <http://nicmosis.as.arizona.edu:8000/>

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June Solar Eclipse URLs

From: Michael Gill To: "SOLARECLIPSES@AULA.COM" <SOLARECLIPSES@AULA.COM> Date: Tue, 25 Jun

Paul Maley's account of his Tinian expedition:

<http://www.eclipsetours.com/June10.html>

Nice partial eclipse shots here by Joe Garlitz (in the U.S.):

http://www.oregonvos.net/~jgarlitz/part_ecl.htm Michael Gill

Solar eclipse from San Diego

From: Evan Zucker To: SOLARECLIPSES@AULA.COM Date: Sat, 29 Jun 2002 09:03:04

I have finally found a web page creation tool that works reasonably well and easily (Web Page Wizard in ThumbsPlus), and so I have belatedly put together a web page of a few photos of the June 10 partial eclipse as viewed from outside San Diego: <http://eclipse.evanzucker.com>.

This page includes two photos of Herb Koenig, who observed the eclipse with my family and me. He drove himself to our site, which was about 30 minutes from his home in central San Diego. Those of you who think you met Herb on previous eclipses may recognize him.

Our more immediate concern in San Diego is wild fires. We will have a very high danger of fire until the rainy season returns in November because this has been the driest one-year rain season in the recorded history of the city (3.02 inches of rain), and the previous 3 years were all below average too.

There was a very serious fire in my immediate neighborhood yesterday. There were roaring flames as close as 10 feet from some houses just a few blocks from my house. Fortunately, fire fighters arrived very quickly and were soon supported by several aerial tankers and a helicopter, and no houses were damaged. The fire was caused by several teenage boys playing with a cigarette lighter, one of whom was later arrested. A few links:

http://dailynews.yahoo.com/h/kgtv/20020628/lo/1242080_1.html

<http://www.kfmb.com/topstory.php?storyID=9540>

<http://www.nbcsandiego.com/news/1536728/detail.html>

<http://www.thesandiegochannel.com/sand/news/stories/news-153671820020628-170609.html>

<http://www.uniontrib.com/news/northcounty/20020628-9999-scrippsfire.html>

Evan H. Zucker San Diego, California

Los Playitos, Mexico

From: Jay Friedland To: "SOLARECLIPSES@AULA.COM" <SOLARECLIPSES@AULA.COM> Date: Sun, 23 Jun

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Hello all, Just wanted to let everyone know that they have added a fifth page of eclipse images at spaceweather.com and three of our photos made it in: http://science.nasa.gov/spaceweather/eclipses/gallery_10june02_page5.htm We are still trying to figure out if the small glint in the image means that we captured just a bit of annularity or just post third contact - its very hard to tell. The images were a surprise (thanks to an automated camera setup) since we really thought we had missed the hole in the clouds. We were about halfway between the centerline and northern limit, also about 50km down dirt roads on one of the nicest beaches I have ever seen. I have to agree with Joanne Poitevin that this eclipse will go down on record as one with high adventure - it was great and definitely half full! - Jay

Some video stills from the Sarape expedition ...

From: Daniel Fischer To: SOLARECLIPSES@AULA.COM Date: Mon, 24 Jun 2002 19:53:16

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... have been added to www.astro.uni-bonn.de/~dfischer/skyreports/mex2002 - while the chemical photographs I took during that critical interval were all either underexposed or blurred, many of the video (half-)frames came out o.k. but too bright (the video itself looks o.k., though; perhaps the settings of the grabber software need improvement) -> when working from a shaking boat, video is the medium of choice!

The resolution of chemical film is much better, of course, as demonstrated by www.williams.edu/astronomy/eclipse02annular/ann02_3.jpg which Jay Pasachoff shot one meter from me. But then again, this was the only picture by him that was not blurred ... I wonder how a modern multi-megapixel digital still camera would have worked under such dire circumstances!

Before we prepare some actual movie clips from the DV tape, I'd like to ask the experts on this list first: What data format is the preferred one for WWW use nowadays and how big can/should individual files be? Daniel

THE ROAD TO CHIMO

MEXICO: ANNULAR ECLIPSE 10TH JUNE 2002 by Joanne Poitevin

"The road to Chimo" may seem a strange title for this trip report, but it's what the trip was all about. Eclipse chasing again, annular this time, and a sunset annular with unpromising weather prospects, but still we go, with the hope that the weather god will bless us all.

Being English you would think I am well used to being frustrated with what's going on above the clouds, but it doesn't count when you know something spectacular is happening rather than normal sunrays. However, this trip was so worthwhile, so valuable in so many other ways, and I therefore learnt a valuable lesson. How to value an eclipse trip by other measures. Not just seeing the eclipse, of which we were lucky enough to see about seven minutes worth of partial phase, but also the amount of fun and effort getting there.



Annular Eclipse of 10 June 2002 by Joanne

After breakfast the day before the eclipse we headed out of town for Derryl's hotel, who had hired a 4 x 4 for the trip to Chimo. Most friends were heading for the centre line; we however, were going for the northern limit. El Tuito was 33 kilometres south of Puerto Vallarta, from there we headed west towards the coast, finding the road to Chimo wasn't straight forward, there were no sign post to speak off, Patrick's knowledge of Spanish helped with the locals giving directions.

The road to Chimo I will never forget, 55 kilometres of dusty, bumpy, mountain track, at places with sheer drops from the side of the road, at places no wider than the car, with blind bends, and rivers to be crossed, we kept telling ourselves, "it can not be that bad because the bus goes there", but it was. We felt like Indiana Jones on the last crusade. Four or five villages lined the road some-

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times with a small church and shop, and some small farms. Simple people living simple lives. The last village before

Chimo was Mal Paso, translated graciously by Patrick for me, means bad pass, I was happier in my ignorance. With still 19 kilometres of bad pass to be driven, sometimes my eyes were closed. When we reached Chimo we had not noticed the amount of dust which covered, our first view of Chimo was a small cluster of buildings by a glistening sea, we knew immediately we had found a perfect location.

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The weather that morning had been the best since we arrived in Mexico, but by lunch time when set out for the eclipse site it had clouded over. Chimo isn't much to write home about, could be described as off the beaten track, away from the tourist drag. There is no village square to speak of, two shops though, and the beer was only 7 pesos a bottle. From now everything would be compared to Chimo's prices, the houses are simple by our standard, chickens running around, donkeys outside the front door, and no glass in the windows.

The men were playing dominoes, and the kid's swimming, fishing looked like the main source of income, but the kids looked healthy enough, and happy.

The children gathered around us like the clouds. Derryl gave out shades to all the kids, and became instantly popular. We set up and wait.

First contact gone - clouded out. There's a shaft of light, we have a hole in the sky, then the eclipse appears, over half way the moon is covering the sun, 7 minutes of precious partial phase, and then its gone again. Only to re-appear during maximum but we can only see one side clearly.

We wrongly thought that when the sun came into our hole, we would have visibility until sunset, but the sun's rays obscured, the thick cloud behind down to the horizon. When the last beam of light came through during maximum 20.33.42 p.m., I was already dismantling the camcorder, so the last filming was very shaky by hand.

We packed up for the very tough ride back, everyone nervous, the road to Chimo was difficult enough but now it would be during dusk and into nightfall. At midnight we reached the hotel and had a well-deserved beer with Derryl, Pam, and Michele. We watched the video over and remembered the road to Chimo. The weather god may not have been with us all the way, but the god of adventure certainly had been, and we were thankful for that.

On our last day in Mexico we visited Teotihuacan, pyramids of the sun and the moon. Ancient cultures are always fascinating and this seems to round off the trip so neatly. Climbing up the pyramid del sol who is always there, if not always visible, followed by climbing the pyramid del la luna who predictably crosses the sun's path, and there we will all be again, see you in Africa.

Special thanks goes to Derryl Barr who allowed us to join him, the driving was incredibly tough, he was great. Joanne Poitevin

From: Egan Mark

This was indeed a charming report.... thanks for posting it.

I was one of the "many" :-) who went to the centerline site. Of course, the roads down there weren't great either.... but, after reading this report, it seems like they were in better shape than the one to Chimo. In fact, it wasn't too much worse than the road to my astronomy club's dark sky observing site.... EXCEPT that it was much longer, and EXCEPT for that part where we had to cross the river. (although that part wasn't as bad as I thought it was going to be.) Perhaps it didn't rain as much on that stretch of road.

I did as much research on the road conditions down there as I could.... joining various Puerto Vallarta- related mailing lists, read-



Annular Eclipse by Joanne Poitevin

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Derryl Barr driving at midnight, back to the Hotel, leaving Chimo. Picture by Joanne

times everyone observed in a different area. it was so exciting being in the company of so many people that shared a common interest. I hope to see some of you at future eclipses. Happy Chasing.

ing books, and e-mailing Puerto Vallarta- based websites. I didn't receive much help-- and I wasn't expecting much..... because very few people go down there. The few people that did help did a fairly accurate job.

My biggest fears before driving the roads were: river crossings (which we faced), roads that could turn to slush (which we didn't face), and the "crazy night drivers" that I had been warned about.

But it was really "my kind of road".... I'll never forget the 3 hour winding, dust filled adventure we had..... passing fields and villages where people live lives much simpler than we do. It's a shame that this eclipse was at such a low altitude... so many of those inland towns missed out on the best part!

But I like to get off the main highways and go to the smaller roads.... and when I can, get off of those roads and take the dirt ones. Lots of neat stuff to see.

Anyway, as memorable as the road was, it was finally good to see so many eclipse chasers in the same area. I had read so many reports about other eclipses but many had read so many reports about other eclipses but many times everyone observed in a different area. it was so exciting being in the company of so many people that shared a common interest. I hope to see some of you at future eclipses. Happy Chasing.



Pictures by Derryl Barr

Top Left: Annular Eclipse in CTX

Top: Chimo village and the mountains behind to cross in the 4x4



Left: Kids of Chimo with eclipse glasses, given by Derryl

South Aust eclipse unpreparedness

From : Fraser Farrell <fraser@trilobytes.com.au> To : "eclipses" <SOLARECLIPSES@AULA.COM> Date : Fri, 14 Jun 2002 18:43:18 +0930

To all, In case any of you have been alarmed by recent media reports such as this one: http://www.abc.net.au/news/scitech/2002/06/item20020613073745_1.htm

These comments are based on very old information; and I suspect the comments may have been taken out of context too. The Australian media love to run stories highlighting government ineptitude and/or bureaucratic stupidity. cheers, Fraser Farrell

Africlipse website

From : "Peter Tiedt" <rigel@stars.co.za> To : "Solar Eclipse Mailing List" <SOLARECLIPSES@AULA.COM> Date : Thu, 13 Jun 2002 21:51:00 +0200

There have been some additions to the Africlipse website.

Firstly - the tours pages have been separated by country, making your choice of a tour much simpler.

Also many additional tours have been added, including an eclipse cruise.

http://www.eclipse.za.net/html/2002_tours.html#Cruise - Special Eclipse Cruise

Visit the following pages for details of the tours.

http://www.eclipse.za.net/html/2002_tours_rsa.html - South Africa

http://www.eclipse.za.net/html/2002_tours_bots.html - Botswana & Namibia

http://www.eclipse.za.net/html/2002_tours_zim.html - Zimbabwe and Zambia

http://www.eclipse.za.net/html/2002_tours_moz.html - Mozambique

Peter Tiedt rigel@stars.co.za Visit my website at <http://www.eclipse.za.net>

...and with the passing of this annular....

From : Kidinv@s@aol.com To : SOLARECLIPSES@AULA.COM Date : Tue, 11 Jun 2002 15:52:37 EDT

It is only proper to note that the next eclipse is in 176 days. I am getting excited!!!! Eric Brown www.eclipsesafaris.com

Eclipse viewing within the Woomera Prohibited Area

From : Fraser Farrell <fraser@trilobytes.com.au> To : "ASSA-chat" <assa-chat@assa.org.au>, "eclipses" <SOLARECLIPSES@AULA.COM> Date : Thu, 13 Jun 2002 13:26:29 +0930

To all, Most of you have noted that the 2002 Dec 4 eclipse passes over the Woomera Prohibited Area and its network of roads; and many of you are going (or intending to go) to Woomera for the eclipse.

I have recently been notified by Woomera's official eclipse organiser, Linda Biddau, of their plans for eclipse visitors. What follows is basically cut-&-paste from Linda's email, with my comments inside [square brackets]:

> * Woomera is a town that was built for developing and testing military weapons and rockets. Up until 1982 the town was

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closed to the general public in accordance with the Secrecy Act.

[Nowadays anyone can visit the town.]

> Woomera is a township surrounded by the Woomera Prohibited Area (WPA) declared by the National Security (Munitions) Regulations. The WPA is 127,000 square kilometres making it the largest land-locked weapons testing range in the Southern Hemisphere. The WPA also provides the only rocket launching range in the Southern Hemisphere that allows for the recovery of payload over land.

[Several aerospace companies and organisations use the WPA for launches and test flights.]

> [Woomera has] Outstanding facilities and amenities suitable for a much larger community.

[The population peaked at about 10,000 during the late 1960's-early 1970's. Since then it has dwindled to a few hundred. However much of the town infrastructure eg: water tanks, parks/sportsgrounds, hospital, cinema, supermarket, swimming pool, etc is still there.]

> One of the best sites to experience this event is within the Woomera Prohibited Area (WPA). As the WPA is still an active testing range access is restricted and normally prohibited. .../...

[This is quite close to the former settlement of Koolymilka that is shown on Fred Espenak's maps. The local times (UT+10.5h) for Koolymilka itself, corrected for altitude and refraction (102 hPa 30deg C) are:

1st contact 18:42:13

2nd contact 19:40:53

mid-eclipse 19:41:06 (magnitude 1.003)

3rd contact 19:41:19

sunset at about 20:15

Local terrain there is treeless and almost flat. Altitude above sealevel approximately 170 metres. Incidentally, the road from Woomera to Koolymilka is now sealed.]

> Due to the small possibility of unexploded weapons being detonated, it is essential that everyone stays within the area designated as the viewing site.

[Remember that the Australian military, with some help from the British and American armies/airforces, have been bombing & shelling & shooting & generally Blowing Up Things in the region since the late 1940's. No doubt there's been some clandestine military tests happening out there too...]

> However there is a requirement to charge an admission fee to allow access to be gained to the WPA. Admission fee to get access to the viewing site is to be charged at .../...

[I think this is supposed to be "British Astronomical Association" ?]

> At the conclusion of the Total Solar Eclipse, there will be an Outback Aussie BBQ at Breen Park in the Woomera Village. There will also be some live musical entertainment.

[Breen Park is a grassed area surrounded by trees, formerly called the arboretum. The area is roughly half the size of a soccer pitch.]

> Admission to this function includes food and soft drinks. The cost for attendance is \$40.00 and bookings are essential and should be directed to the ELDO hotel on +61 8 8673 7867.

>

> To book accommodation and for tourist information on this one off event may be obtained from Linda Biddau on e-mail linda.biddau@baesystems.com or by telephoning +61 8 8673 7799.

[If telephoning from outside South Australia, note the timezone here is currently UT+9.5h, and "business hours" are typi-

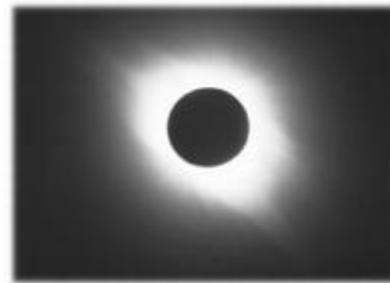
cally 09:00-17:00 Monday to Friday.

Although there's an admission fee involved, viewing inside the WPA means that you're at no risk of being hit by road trains or other passing traffic, and there's some basic amenities on hand.

I've already warned Linda that a lot of you will probably want to stay out at Koolymilka and look at the stars afterwards. That splendid swathe from Crux through Carina/Vela to Puppis will be ideally placed for viewing that evening.] cheers, Fraser Farrell

TSE 2002 by Sirius

From : "Alten, Vicky" <Alten.Victoria@tchden.org> To : "patrick_poitevin@hotmail.com" <patrick_poitevin@hotmail.com> Date : Tue, 25 Jun 2002 11:14:15 -0600



Dear Patrick, We at Sirius Travel are interested in getting the word out to the astronomical community about our upcoming eclipse tour to Australia. Sirius is owned and operated by professional astronomers and we are telescope friendly! We will be under the dark skies of the Australian Outback for three nights and we are planning to have star parties each night. It is the only place on the tour where we are confident that the skies will be dark and clear. Other times we will simply have to make do with snorkeling on the Great Barrier Reef and sightseeing in Sydney...

If you are amenable, I would like to request to post the following letter to your solar eclipse distribution list. It would be greatly appreciated!! Sincerely, Vicky Alten Sirius Travel

Have you ever wanted to see a total solar eclipse? Are you a veteran eclipse chaser? Whether a first-timer or a veteran, a total solar eclipse of the sun still has the power to awe anyone fortunate enough to be standing under the Moon's shadow as it races over the Earth.

Traveling round trip from Los Angeles, CA, Sirius Travel will lead up to 30 people to Australia's Outback on December 4 for this incredible event! If you have ever wanted to see one of nature's most spectacular shows - this could be your best opportunity for a long time to come. At the bottom of this note you will find a list of dates and locations for the next solar eclipses, up to the USA eclipse of 2017.

Total solar eclipses are rare and often difficult to see based on the location of their passage and the climate of the location. This year we are fortunate enough to have an eclipse fall on the continent of Australia, a unique destination on its own, and to view that eclipse from the Outback, where observing conditions are reliably dry and clear! Australia is an easy destination for English speaking travelers, with a stable government and an environment that will feel familiar to Americans, with more than a trace of frontier attitude.

Sirius Travel stands distinct from the other operations leading tours in that we are exclusively owned and operated by astronomers. We offer only astronomy related tours. All of our guides are astronomers and experienced travelers and an astronomer is involved in every stage of planning for our tours. This means that we have asked all of the questions and considered all of the astronomical pitfalls well in advance. We have studied the climate of the region and selected our viewing area based on historical climate data and accessibility by road. One of our guides worked in the Woomera area for five weeks in 1995 and is intimately familiar with what there is to do in the vicinity. Based on experience, we booked all of the actual hotel-style rooms at Woomera's only hotel, the Eldo, 2 years in advance (the remaining rooms are barracks style with the shared use of a coed bathroom). We have fully pre-paid for all of the rooms and other tour companies are, unfortunately, now forced to use the barracks.

We encourage all travelers to bring their portable telescopes. We will be under the dark Outback skies for 3 nights - warm, clear, and dry conditions will make for excellent star parties and a perfect time to explore the southern sky!

If you are contemplating traveling to see this eclipse we invite you to consider Sirius Travel. Please visit our website (www.siriustravel.com) for details about this tour or email us anytime at eclipse2002@siriustravel.com.

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Future total solar eclipses (landfalls):

November 23, 2003 - Antarctica (passes over Russian base of Mirny)

March 29, 2006 - Africa, Turkey, Russia

November 13, 2012 - Australia (rainforest region)

March 20, 2015 - skims Iceland

March 9, 2016 - Indonesia

August 21, 2017 - USA!!!

We hope to hear from you soon, Clear Skies! Sirius Travel

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December 4th Total Solar Eclipse in Africa

From : "Hole in the Sky Tours" <holeinthesky@earthlink.net> To : <patrick_poitevin@hotmail.com> Date : Wed, 19 Jun 2002 22:10:20 -0700

Dear Eclipse-o-phile, Time is running short to make your reservations to join us for the December 4, 2002 Total Solar Eclipse off of the eastern coast of Africa. We will view this eclipse from the deck of the Marco Polo (the same ship we used for the 1999 eclipse on the Black Sea!). This ship is just the right size to have the amenities you want on a cruise, but is not so big that you never see the same person twice!

Our itinerary begins with a safari in Kenya in Mt. Kilimanjaro area. We begin the cruise portion in Mombassa, Kenya and head south to the island of Zanzibar, Tanzania then on to Madagascar (to see black lemurs!). On December 4th the captain will place the Marco Polo in the clearest skies possible to view the total solar eclipse. We then continue our cruise, visiting 4 ports in South Africa, Richards Bay, Durbin, Port Elizabeth, and then beautiful Cape Town. There are so many magnificent things to do in Cape Town, we will stay for 3 days using the ship as our floating hotel!

There are still a few good cabins remaining, so if you have a desire to see the last 'accessible' total solar eclipse before 2006, call or email us today. For more information about our trip, visit the web site: www.holeinthesky.com. To make your reservation, call Georgia Shoemaker at 916-922-5545 (pacific daylight time). Don't let this eclipse pass you by, make plans to join us as we once again, 'stand in the shadow of the moon'! Clear Skies, Jerry Levy eclipse98@earthlink.net

From : "eclipse98" <eclipse98@earthlink.net> June 24, 2002

Dear Eclipse-o-phile, In my last email, I gave out the wrong phone number in my last email by blending the two numbers you can use to inquire about the December 4, 2002 Total Solar Eclipse Cruise on the Marco Polo. The correct numbers are toll free in the US: 800-782-5545 or outside the US: 916-922-5500. As I said last week, there are still a few good cabins remaining, so if you have a desire to see the last 'accessible' total solar eclipse before 2006, call or email us today. For more information about our trip, visit the web site: www.holeinthesky.com. Also, I would greatly appreciate it if you would forward the Hole in the Sky Tours web address to anyone who you think might be interested in joining us to 'stand in the shadow of the moon' and witness this fantastic spectacle for themselves! Clear Skies, Jerry Levy President Hole in the Sky Tours eclipse98@earthlink.net

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From : klipsi@bluewin.ch To : SOLARECLIPSES@AULA.COM Date : Fri, 14 Jun 2002 16:02:18 +0200

hola amigos, back from wonderful Mexico. Not 100% eclipse related, but of interest for those of us who plan on going there next year by ship: a German supplyship is currently blocked in ice and a rescue effort is underway. Note: the ship is an "ice strenghtened" ship, not an icebreaker. We, on the Kapitan Khlebnikov , will not have to face this kind of adventure (sadly ? ;-) read below Klipsi

Title: German ship rescue underway Subject: News Author: Brendon Grunewald Story: 70South has received an as yet unconfirmed report that there is rescue being mounted to save the crew of a German vessel that was supplying the Indian Base Maitri. Apparently the German ice strenghtened cargo vessel that was resupplying the Indian base and got stuck in the ice. The SA Agulhas (South Africa) will meet up with a Russian ice breaker and try to get within helicopter range of the stranded ship and then fly them off to the Agulhas then back to South Africa. The SA Agulhas apparently leaves on Sunday. If you have any more news on this please post it here...

Author: Brendon Grunewald Story: The South African Government's Antarctic Division has sent 70South a copy of an official report that has been released about the rescue of the crew of the Magdalena Oldendorff. Read the report by clickingRead Details...

A rescue attempt has been initiated to evacuate the personnel of the supply ship Magdalena Oldendorff which was chartered for their re-supply voyage by the Russian Antarctic Programme. She is beset in pack ice off Muskeg bukta some 300 or so kilometers from SANAE IV with 107 persons on board.

The South African research and supply vessel the mv SA Agulhas will set sail on Sunday with two Oryx helicopters specially fitted with long-range fuel tanks onboard and rendezvous with the Argentine icebreaker Almirante Irizar just outside the pack ice. The helicopters will be transferred onto the Almirante Irizar who will try to get at least within helicopter range of the Magdalena Oldendorff.

If she is able to reach the stricken vessel an attempt will be made to tow her into open water out of the pack ice. If not the personnel will be flown to the SA Agulhas for transport to Cape Town.

More: <http://www.70south.com/news/>

Eclipses During 2003

From: FRED ESPENAK To: SOLARECLIPSES@AULA.COM eclipse@hydra.carleton.ca Date: Fri, 28 Jun 2002 14:17:09

"Eclipses During 2003"

Two central solar and two total lunar eclipses occur in 2003 as follows:

2003 May 16: Total Lunar Eclipse
 2003 May 31: Annular Solar Eclipse
 2003 Nov 09: Total Lunar Eclipse
 2003 Nov 23: Total Solar Eclipse

I have recently completed my annual contribution on eclipses "Eclipses During 2003" for the Observer's Handbook 2003 of the Royal Astronomical Society of Canada. The article covers predictions for all eclipses which are summarized in a series of diagrams. World maps show the regions of visibility for each eclipse. The lunar eclipse diagrams also include the path of the Moon through Earth's shadows. Contact times for each principal phase are tabulated along with the magnitudes and geocentric coordinates of the Sun and Moon at greatest eclipse. Path coordinates and local circumstances from major cities are listed for the two solar eclipses. Finally, prediction timings for major lunar craters are presented for each lunar eclipse.

Note that both of the total lunar eclipses are visible from Europe and North America.

Of special interest is a detailed map of Greenland, Iceland, Scotland and all of Europe showing the path of the annular eclipse on

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2003 May 31:

<http://sunearth.gsfc.nasa.gov/eclipse/OH/image/SE2003Fig3.gif>

Another detailed map of Antarctica shows the path of the total eclipse on 2003 Nov 23 and the location of major research stations there:

<http://sunearth.gsfc.nasa.gov/eclipse/OH/image/SE2003Fig6.gif>

Although the article will not be published until fall 2002, it is now available from my NASA eclipse web site. The URL is:

<http://sunearth.gsfc.nasa.gov/eclipse/OH/OH2003.html>

Please let me know if you find any errors or broken links. - Fred Espenak

Antarctic Eclipse

From : "John McElroy" <jmac@rsc.co.uk> To : "Eclipse Group" <eclipse@hydra.carleton.ca> Sat, 22 Jun 2002 12:19:38 +0100

Anyone know of any company or cruise-line organising a cruise to Antarctica to include the Total Solar Eclipse on Nov. 23rd 2003? John McElroy

From : "Patrick Poitevin" <patrick_poitevin@hotmail.com>

Please have a look in our webpages which has links to all future solar eclipses, including the total solar eclipse of 23 November 2003. The Solar Eclipse Newsletter, also provides many details about those cruises or flights. See the same webpages:

<http://www.j.w.edmonds.btinternet.co.uk> Best regards, Patrick

From : Jay.M.Pasachoff@williams.edu

Stewart_Campbell@adventureassociates.com has booked about 1/3 of the cruise ship for the Antarctic total eclipse. Vic and Jen Winter at icstars.com have booked some berths from the US. Berths are about \$24,000 each in a double for this month-long cruise. Jay Pasachoff

From : "eclipse98" <eclipse98@earthlink.net>

we are putting people on the Kapitan Khlebnikov for a spectacular sailing from November 5th thru December 3rd. The ship departs Port Elizabeth, SA and sails to Crozet Island, Kerguelen Island, Heard Island then Antarctica for the eclipse and general exploration before concluding in Hobart, Australia. For more information please go to my page: www.holeinthesky.com



**ECLIPSE shop in Puerta Vallarta, Mexico
Picture by PP June 2002**



Joanne & Patrick

The sole Newsletter dedicated to Solar Eclipses



THE SOLAR ECLIPSE NEWSLETTER IS A MONTHLY NEWSLETTER ABOUT SOLAR ECLIPSES EDITED BY PATRICK POITEVIN & JOANNE EDMONDS. FINANCIAL SUPPORT FROM THE RAINBOW SYMPHONY.



THE ELECTRONIC VERSION OF THE SOLAR ECLIPSE NEWSLETTER IS AVAILABLE ON THE WEB PAGE OF FRED ESPENAK.



THE SOLAR ECLIPSE NEWSLETTER IS FREE OF CHARGE, BUT IS NOT AVAILABLE IN HARD COPY.

Press News

Rising star can eclipse his rivals

Metro 3 July 2002



CHRIS CATLIN, the boy from Barnet who is tipped to go right to the top of the tree as a jockey, will have his first ever Group One ride when partnering the Mick Channon-trained Imperial Dancer in Saturday's Coral Eurobet Eclipse Stakes at Sandown, writes Colin Fleetwood-Jones. Imperial Dancer was confirmed, along with six rivals, as a runner in the Esher track's showpiece, at today's final declaration stage. The withdrawals from the race, for which Vodafone Derby runner-up Hawk Wing is an odds-on favourite, included the Godolphin-



Chris Catlin and his Eclipse Stakes mount Imperial Dancer (right) in winning form at Goodwood in May

"No Excuse Needed has been campaign. The son of a delivery likely to be around the 50-1 m



Evening Standard 4 July 2002

SAY HALO, WAVE GOODBYE: Those who missed out on the total eclipse of the sun three years ago have a chance to catch the next one in the Australian outback in December. Explorers Tours has chartered a train from Adelaide to Woomera for the 19-day tour which sets off on November 30 from London. Air fares, hotel accommodation, rail and ground arrangements start from £2,085. A ground-only programme is available from £1,436. Visit www.explorers.co.uk/astro/astro_home.htm for more information.



travel@ukmetro.co.uk