

## SETalk

SENLinde.htm (One month delay) May be other sources exist... Cordialement, Martine & Jean-Paul

From: solareclipsewebpages@btopenworld.com

Dear Mick, There is no need to pose your question to the entire SEML. Though, for everybody this: The Solar Eclipse Newsletter (SENL) covers all Solar Eclipse Mailing List messages. The December and January (and the Special edition) are at our webpages.

<http://solareclipsewebpages.users.btopenworld.com>

Example: [http://solareclipsewebpages.users.btopenworld.com/SENL\\_files/Senl200212.PDF](http://solareclipsewebpages.users.btopenworld.com/SENL_files/Senl200212.PDF)

Though archived versions are available as well. The SENL (since November 1996) is available on the internet and can be downloaded free of charge.

See: <http://www.MrEclipse.com/SENL/SENLinde.htm>

SENL: <http://sunearth.gsfc.nasa.gov/eclipse/SENL/>

Index: <http://www.mreclipse.com/SENL/SENLinde.htm>

Example: <http://sunearth.gsfc.nasa.gov/eclipse/SENL/SENL0011.pdf>

Do you want to retrieve single messages of the SEML. Have a look at: [www.astroarchive.com](http://www.astroarchive.com)

I hope this helpt. Please ask info off line and not on the entire list. Thank you. Best regards, Patrick



**Picture of 4 December 2002 eclipse by David Forshaw**



The Moon's shadow -Totality at Woomera 4.12.02

**New Photos / Report of 2002-12-04 TSE from Ceduna (finally)**

From: Geoff To: SOLARECLIPSES@AULA.COM Date: Sun, 05 Jan 2003 09:40:45

Hey, I have finally got all my (and others in my group) photos together, and have added them to my website. Sorry for the HUGE delay! There are still quite a few more I would like to add, but I am yet to get access to them, and don't want to wait any longer before showing people (they were mostly people shots during/after the eclipse - nothing special). All the main ones are up, I hope you enjoy them. I sure enjoyed taking them, and they bring back a lot of awesome memories.

Whilst there is not a formal report, I have made a commentry to go with each photo, as well as a small introduction.

Anyway, please check them out at: <http://home.iprimus.com.au/rsims/seclipse.htm>

And PLEASE let me know what you think - as my first total solar eclipse, and first attempt at TSE photography I would very much like to know what people think of these photos, and would appreciate both positive/negative feedback. Thanks, Geoff.

From: Dave Schmahl

Geoff, You should be very proud of the work you presented on your website. It really is a fine job. I especially liked your wide-angle photos showing the eclipse, clouds and reflection on the ocean. Dave Schmahl Vista, CA

From: David Makepeace

I agree with Dave. Great stuff, Geoff!

>I would very much like to know what people think of these photos, and would appreciate both positive/negative feedback.

I agree with Dave. Nice work, Geoff!

You should be very pleased. I especially like the diamond ring Puff shot! You don't often see a 500mm shot of totality with clouds artistically placed! Nicely done. David Makepeace Toronto, Canada UmbraLog 1281 <http://www.eclipseguy.com>

**TSE 2002 Images from Lindon Station SW Australia**

From: Glenn Schneider To: SOLARECLIPSES@AULA.COM Date: Sun, 05 Jan 2003 08:01:27

I have placed a preliminary photographic report (with images, of course) from TSE 2002 taken from Lindon Station SW Australia: Latitude: -029° 07' 53.0", Longitude: +140° 53' 50.0" at: [http://nicmosis.as.arizona.edu:8000/ECLIPSE\\_WEB/ECLIPSE\\_02/TSE2002\\_IMAGES.html](http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/ECLIPSE_02/TSE2002_IMAGES.html) Cheers, Glenn Schneider

From: Harvey Wasserman

Glenn, What a beautiful sequence of high-res photos - [http://nicmosis.as.arizona.edu:8000/DETCAL/TSE2002\\_HIRES\\_GALARY/TSE2002\\_HIRES\\_GALLERY.htm](http://nicmosis.as.arizona.edu:8000/DETCAL/TSE2002_HIRES_GALARY/TSE2002_HIRES_GALLERY.htm) Congratulations. These look like they would make a great movie strung together. FYI Images H23\_25 and H10\_25 are not displayed. Harvey Wasserman

From: Glenn Schneider

Thanks. Actually, they have been (strung together) already: [http://nicmosis.as.arizona.edu:8000/DETCAL/TSE2002\\_REALTIME\\_1FPS.mov](http://nicmosis.as.arizona.edu:8000/DETCAL/TSE2002_REALTIME_1FPS.mov) (a 32 Mbyte dowbload - sorry for the size).

Oops. File name error(s) on those two gallery frames. You can display them by listing the directory and clicking on their names. - GS-

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2**2002 eclipse viewing sites**

From: Sheridan Williams To: SOLARECLIPSES@AULA.COM Date: Sun, 05 Jan 2003 13:29:19

These are available for download as pushpins for Encarta World Atlas 2001. They have smiley faces if successful, sad faces if clouded out, and mediocre faces if partially cloudy. Download from: [www.clock-tower.com/eclipse.htm](http://www.clock-tower.com/eclipse.htm)

**Eclipse images from Purple Downs, South Australia**

From: Timo Karhula To: SOLARECLIPSES@AULA.COM Date: Wed, 15 Jan 2003 14:16:51

Hi all, Here is a link to some images of the solar eclipse as seen from Purple Downs, South Australia. I recorded them with my Sony CCD TRV65E analog videocamera. Now, I copied the short movie to a friend's digital camcorder, downloaded it as an mpeg movie and grabbed images from it with the freeware Irfanview. The last five photos show the birth of a Green(ish?) flash. These are taken with 72x digital magnification and no filters.

Click on each thumbnail to get larger pix. [http://www.imira.com/Album/GuestView.asp?AID=729960&BackURL %20Falbum%20FMemberListAlbum%20Easp%30FCPIIndex%30D0 /Timo Karhula](http://www.imira.com/Album/GuestView.asp?AID=729960&BackURL%20Falbum%20FMemberListAlbum%20Easp%30FCPIIndex%30D0/Timo%20Karhula)

**Eclipse tour pictures now posted**

From: eclipse98 TTo: SOLARECLIPSES@AULA.COM Date: Fri, 17 Jan 2003 08:23:14

The Hole in the Sky Photo and Writing contest has now closed.

I have uploaded dozens of pictures from this years TSE from Zimbabwe, East Coast of Africa, and Australia. In addition, there are 4 pages of "fun" pictures of some of the animals that were seen, and some of the places that this year's eclipse hunters visited. You can view the contest entries at [www.holeinthesky.com](http://www.holeinthesky.com).

I would be happy to post additional work, for those of you who would like to share your work with a wider audience. I am particularly interested in the eclipse pictures from other sites, and those which show a sense of "place", that allows the viewer to identify the location of the shot. Clear Skies, Jerry [www.holeinthesky.com](http://www.holeinthesky.com) eclipse98@earthlink.net

**Baobab Eclipse - Report of 4-Dec-2002 eclipse, South Africa**

From: Katherine Low To: "SOLARECLIPSES@AULA.COM" <SOLARECLIPSES@aula.com> Date: Tue, 14 Jan 2003

Dear friends, Finally I managed to get my report of the last 4-Dec eclipse ready. Please find the text below (copied from a Word document). If your are interested in the Word document (35 KB) or the Word document with pictures included (8 MB), please mail me privately.

I also created a new online album called 'South Africa 2002' at: [www.picturetrail.com/krisdelcourte](http://www.picturetrail.com/krisdelcourte) with more pictures on the eclipse.

Baobab Eclipse Wednesday, 04 December 2002

03:30 I suddenly wake up in my tent at the campsite of the Tshipise Aventura Resort. Katherine is already up and anxiously monitoring the activities of other campers noisily moving around the fully packed campsite. "Many people already speeding off!", she screams. When I crawled out of the tent a few minutes later, still half asleep, I look desperately at a partially clouded sky. It is still dark, some stars are twinkling through a few clear patches. It is especially this type of clouds that's worrying me. Not the occasional cumulus type that easily dissolves under a heating sun, but rather the structured type announcing, at least in West-Europe, an approaching 'cold front'. And saying that, around midnight I was still admiring the stars brightly shining from the dark, transparent sky, as dark as African skies can be. Let's pray and hope for the best!

04:15 We are ready to leave the Tshipise campsite. Daylight is coming through. Many cars are leaving the Tshipise resort

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now and all heading in the direction of Pafuri. There is a big observation site in that direction prepared by 'African Itch' and hosting various local and overseas parties. Whereas we head off the opposite direction along the road leading to Messina. Looks like we are the only one driving in this direction. Are we sure we are right?

I am driving rather slowly since it is still twilight, at the same time monitoring the evolution of the clouds. Moving away from Tshipise, it appears for a moment that I am heading towards a clear blue sky, leaving all the clouds behind me. I notice a tendency for the clouds to stay over the mountain range of the Southpansberg.

Approaching the baobab reserve near Messina we are in for a surprise. All the nice baobab trees still looking so attractive and unspoilt few days ago have now been 'occupied'. People seem to spend the night under the baobabs, either put up tents overnight or sleeping in the car or snuggling in their sleeping bags outside. They are barely waking up and preparing for the big event.

05:00 Just before the town of Messina, we turn right into the Malala Drift. We witness a beautiful red sun rising from behind a baobab-filled horizon. This road joins the Limpopo River a bit further and leads to the central line. We see people everywhere along the roadside now: under baobabs, on koppies, rocks or any possible elevated grounds. Some people climb over the high fences and manage to reach the top of the rocky hills. After 8km the tarmac ends and turns into a dirt road. "Our baobab" tree is situated at km 21. We "discovered" this tree 2 days ago during our recky trip. The tree has magnificent branches and impressive proportions. There are no fences on the adjacent agricultural land. In the direction towards the West, there's a good view over the almost dried-up Limpopo River which would allow us to see the shadow of the moon approaching from over the sandy bedding. Great spot, it is booked!

As I drive further along this road, my fears have been confirmed. From far I could see a VW combi parked under our "booked" baobab tree. A girl standing next to it while a bloke sleeps nearby. Weak smoke is still coming out from a leftover campfire. Two empty bottles explain the rest. I talk to the woman to tell her we intend to observe from here (if she doesn't mind), she makes the 'ssssssh' finger sign, then pointing to 2 others still sleeping in the van.

06:00 The sun is getting brighter. Half disappointed that some "aliens" have occupied my spot, I slowly unpack my simple equipment, set up the tripod and mount my conventional 35 mm camera equipped with a manual 28 mm f 2.8 lens and with a remote trigger release. The day before, I performed the last rehearsal: it takes slightly more than 1 minute to walk through the different shutter speeds of my program. This leaves less than 20 seconds to have a visual view with the binoculars and to enjoy the details of corona and prominences. Before first contact, I observe suspiciously the cloud patterns. The higher, thinner cumulus clouds are not a real threat, but more and more lower cumulus clouds are moving in the direction of the sun. They are coming from the south-east direction, from over the Southpansberg. Soon the first cloud will reach the sun..... initially, not for very long, but more clouds seem approaching and the white colour is turning into a dark grey. In the direction of Messina and Zimbabwe, the sky still looks blue. Although the clouds are heading into that direction and will eventually also reach Messina, it is my opinion that the chances of having a break-open will be bigger in the direct environment of Messina. At that moment I am starting to think of making a move into the direction of Messina.

07:12. First contact is very well visible but soon afterwards, the darker clouds are reaching the sun. The clouds appear so numerous, that we decide to pack up and move on to our contingency location. I quickly fold the legs of the tripod together, leaving the camera mounted on it. Katherine takes over the wheels and head in the direction of the sky openings. We decide to move to the Arton Villa. The Arton Villa is another possible observation site we prospected 2 days ago. It is nicely located at the top of a hill with some baobab trees and bush-land freely accessible. We seem to be the only ones making this move. People stare strangely at us as we drive off during the partial phase of the eclipse, leaving them behind in a big cloud of dust. After a drive of about 13 kms we reach the tarmac road again and we turn towards Arton Villa. The place is almost deserted. There is only 1 family with a pick-up vehicle when we arrive and another bakkie is coming soon after us. The nice big baobab tree is still unoccupied, waiting for me! I quickly put the tripod in position.

07:45 Since first contact, the sun has been hiding behind the clouds most of the time. Suddenly it appears again in a blue patch, and yet another blue patch. At some moments we can see with the naked eye, filtered through the clouds, the big dark bite the moon ate from the solar disk.

08:00 There is a bigger clearing coming up, then the sun disappears again. The tension is rising: still 18 minutes to go before totality and there are still 3 dark clouds that have to pass the sun. After that, we see a huge blue clearing! 'It will just be fine!' shouts Katherine, 'because the wind is very strong'.

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08:12 It is still 6 minutes before totality as the miracle happens. God has answered our prayers! The sun is all in the clear and the spectacle can start in all its glory! Colours are fading to grey, shadows are getting sharper, birds are singing very loud. The European swallows, currently also on eclipse expedition in Africa, are madly flying around. The eerie feeling, the cool breeze: all the sensations that make an eclipse experience so unique and unforgettable are present.

08:15 A bird comes to sit on my baobab.

08:18 Totality starts with a magnificent series of Bailey beads at the southern edge of the sun. Prominences are visible at 5 and 6 o'clock. The corona is quite symmetric, nevertheless, it has some pronounced streamers in the 3 o'clock direction. The horizon has a dark yellow-orange like colour. The sky does not look that very dark to me. After my photo program, I have a peep through the binos. Oops, the ocular is out of focus, must have been during the action. Several prominences appear at the northern limit of the sun which is now getting brighter and announcing quickly the end of totality. We witness another beautiful, long diamond ring. A sudden increase in light intensity is apparent. It is as if somebody has switched on the light again. Needless to say that these 80 seconds have passed far too fast.

Suddenly, loud music is playing from a car radio. A young African couple is standing, hugging, kissing and dancing in the open back of their pick-up while Katherine is taking pictures of them.

The eclipse is over and once again it's been a great success. We are relieved that everything turned out so well. Later on, we meet people who stayed at the Tshipise resort. They have been completely clouded out. Also most of the observers along the R525 road to Pafuri including the African Itch observation site had no choice but to experience the eclipse from behind the clouds. We have learned the importance of being mobile and to invest time into surveying around looking for contingency locations.

The classical way to end an eclipse story is to look ahead at the next one. Since the Antarctic 2003 and the Pacific 2005 eclipse are probably out of our reach, it looks like we will go for another African one: Niger or Libya. While waiting till 2006, we will fill up the time with some annular ones and some other destinations that figure since long time on my wish list. Kris Delcourte

From: Cliff Turk

Kris, The mountains in your email are the Soutpansberg, without the "h" which you so generously give them. They have nothing to do with "south" as the meaning of "sout" is salt! Incidentally, your "Bailey's" beads could also be "Baily's" Cliff Turk

From: Katherine Low

Hi Cliff, Thanks for your corrections. Indeed as a Flemish speaking I should have known that "sout" is "zout" (salt) and the Bailey's must have been the influence of the Irish Cream.

By the way, referring to the Kruger leaflet, the shadow of totality is traveling at a speed of 3000 km/h instead of 300 km/h. A typo error I guess. Kris

#### Wirraminna pictures at last

From: Chris Malicki To: SOLARECLIPSES@AULA.COM  
Date: Sun, 19 Jan 2003 00:53:05

I have finally posted a few pictures together with my article at <http://webhome.idirect.com/~kmalicki/Australia%20eclipse.htm> Please note that the flag which Jim Low mentions in this article is visible on two of my pictures. The train in the background hooted its horn when Amy and Liz paraded around with their flags on the morning after the eclipse. Chris Malicki

#### Pictures of the 2002 TSE from Ceduna

From: Sheridan Williams To: SOLARECLIPSES@AULA.COM  
Date: Thu, 23 Jan 2003 17:39:18

I have been asked by Charlie Britten (charlie@gerkin.freemove.co.uk) who is not a member of the SEML for web sites with pictures of the eclipse from Ceduna. If you can help please email the URL's directly to him. Thank-you to anyone who can help. Best wishes Sheridan Williams



**More images of the December 4th TSE from Koolymilka, Australia**

From: Arne Danielsen To: SOLARECLIPSES@AULA.COM Date: Wed, 15 Jan 2003 19:12:41

Dear friends, I have finally found time process and upload a few more images of the December 4th total Solar eclipse.

The first two images are close-ups of the prominences;

<http://home.online.no/~arnedani/astronomy/astrophoto/eclipse/20021204/D60-0927prot9.htm>

<http://home.online.no/~arnedani/astronomy/astrophoto/eclipse/20021204/D60-0927prot4.htm>

Then there are 3 composite images;

<http://home.online.no/~arnedani/astronomy/astrophoto/eclipse/20021204/D60-0927to0934m.htm>

<http://home.online.no/~arnedani/astronomy/astrophoto/eclipse/20021204/D60-0927to0934.htm>

<http://home.online.no/~arnedani/astronomy/astrophoto/eclipse/20021204/D60-0927to0934and0914.htm>

These images were made from combining 8 exposures with different exposure length. I'm very grateful to Mikkel Steine (<http://www.messier45.com>) for helping me process these images!!

Feedback on the images, especially the composite images, are most welcome! Best regards, Arne

From: Klipsi

AWESOME ! the more composite images from various artists ('cause this is advanced art, no more simple photo) I see of that december 4 outer corona, the more I am stunned, fascinated by its weird shape. I try to find a known form or animal or anything to compare it with. It keeps telling me I have seen this shape before, but where, when ? What is it ? What does it look like ? It is not symmetrical like a butterfly. It is not an angel. It is wild but has beauty. It is disorganized like the 1991 corona but much more. It has long elegant feathers. It flies. It is close to heaven. It looks like .... a flying paradise bird !!! <http://images.google.ch/images?q=Paradise+bird&ie=UTF-8&oe=UTF-8&hl=de> Klipsi

From: Stig Linander

Arne, Congratulations! I love D60-0927to0934.htm - IMHO the best composite so far. Well - I was clouded out (KNP) - so I compare with my memory of the 1999 and 2001 TSE's ... Best regards, Stig.

From: rybrks1@cs.com

The images by Arne Danielsen were excellent.

The image <http://home.online.no/~arnedani/astronomy/astrophoto/eclipse/20021204/D60-0927prot9.htm> showed extremely well the hydrogen reflection of photosphere brightness I mentioned recently at the base of the chromosphere and prominences. Raymond Brooks

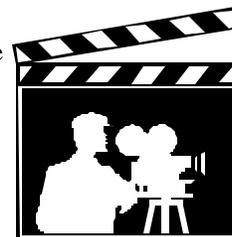
From: solareclipsewebpages@bopenworld.com

Why is the inner corona, at the very inside, slightly pink tinted? We saw the corona once, in 1999 quite pinkish, at the insides. best regards, Patrick

From: JohnLX200@aol.com

That is a really nice photo for only 60mm of aperture.

You seem to be right about there being reflections of photosphere, especially at the prominences. I'd always sort of noticed the uneven nature of chromosphere brightness, and its ability to predict bead locations at C3, and to confuse the issue of when totality exactly started/ended, especially on video...but I never gave it any detailed thought or analysis. I think it will be a useful exercise for me to review my photos and videos of previous eclipses with this in mind, to see how good a correlation I can find.



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My 1999 video of grazing totality shows conclusively that it can be difficult to tell a photospheric bead from a photospheric bead reflection, to an extent where the duration of totality is affected by up to 6 seconds. All just from differences of opinion about whether any photosphere is there yet, when viewing the same tape many times. When viewing another expedition member's tape taken with an identical camcorder but different zoom setting and hence physical aperture and perhaps exposure setting, the issue gets even more confused.

The reflections are quite bright in the 2002 photo Ray referred to, especially considering that the exposure is shorter to get properly exposed chromosphere, than the exposure would be in typical photos of inner corona, which itself is quite bright. On the other hand, it is a longer exposure than is typical for (large) beads.

I'd be interested to find out how many square arcseconds of photosphere would be required to make a bead of equal brightness to these reflection spots seen during totality. Then we could set about figuring out whether the 2005 "small island" near-totality view would have photospheric beads brighter, dimmer, or about the same as these "photospheric reflection beads" associated with the prominences seen in 2002. Then, for many seconds the near-totality view would be within some reasonable factor in brightness, of a brighter-than-average totality view.

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The whole assumption that in 1925, 97th Street and Riverside Drive (my mother's location, as well as some of the "official observers") was "THE limit of totality", must also be put into context. The observers south of there could detect via naked eye, a bead which never was extinguished, while those north of there, could not see it at the "moment" of totality. Could they have seen an object the brightness of Venus, or Sirius, or something dimmer, as making the eclipse partial, had such an object been next to the limb of the moon? What "star magnitude" is required of a bead so as not to just blend into the inner corona, or chromosphere, or (as Ray suggests) the bright reflections of photosphere off a prominence? As a function of bead shape and brightness, you could calculate how far north the "true limit" of photospheric visibility through a very large telescope would have been displaced from the naked-eye limit.

I hope nobody has taken the 1925 naked-eye limit data as the absolute limit and plugged it in alongside more accurate electronic occultation-timing measurements, to extrapolate anything backward in time. One should first calculate the lunar-valley area required for naked-eye visibility at C2/C3 of a zero-length eclipse by semi-untrained observers, then examine the limb profile and determine the required offset distance to give that area of photosphere showing, rather than zero. Regards, John Hopper

From: Robert B Slobins

Patrick, Joanne, here goes: The colour of the chromosphere is a complex colour. We take a whole lot of H-alpha red, H-beta blue, and H-the rest violet. This ought to make Magenta. Then add in Ca-violet and He-yellow and there you have it, wierd hot pink. I wonder what the Pantone colour number is.

If anyone can direct me to software that one can use to combine colour, or produce the wave form that adds these lines, I would appreciate it. I sort of forget my Fourier analysis :-)

I guess that the dust in the inner corona is reflecting chromospheric light. In 1999, solar max, there is more chromosphere up at altitude than at solar minimum.

My question: Was this a naked-eye sighting or photographic/video sighting.

What were atmospheric conditions like?

I have never seen this effect in the 11 totals I have seen. Indeed, I have an image of the 1995 eclipse that shows a bright white band above the chromosphere. I guess that this is where the million degree temperature occurs. I have postcards made up showing this image, in addition to having the image published in Sky News and Sterne und Weltraum. cheers/rbs

From: Jay.M.Pasachoff@williams.edu

I agree with Mr. Slobins. The very nice picture from Koolymilka seems to me to show a band of chromosphere, which appears pinkish, mixed in with some white from either overexposure or the top of the photosphere. Mr. Slobins's explanation of the color

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of the chromosphere is correct.

**T** So this is a great chromospheric picture. There is some faint white above it that could be the inner corona, but I don't see any reddish in it. I don't see any or hardly any structure in that white haze, so it could be reflections or scattering in the Earth's atmosphere. Jay Pasachoff

**S** From: solareclipsewebpages@btopenworld.com

**E** We observed the 1999 total solar eclipse in excellent conditions (very transparent) in Iran. Of course, the observations were visual. I never make observational statements on pictures or video shots.

**2** Of all solar eclipses I have observed (have a look on our webpages but I think it is 15 total), we did not observe these kind of corona tints earlier or after the 1999 TSE. Best regards, patrick

**0** From: Robert B Slobins

**0** I have several images from different eclipses taken near 2nd/3rd contact that shows the chromosphere 'bleeding' into the rest of the image. I like the effect and try for it at each eclipse. cheers/rbs

#### Another 2002 web site (or two)

From: Stephen Russell To: SOLARECLIPSES@AULA.COM Date: Sat, 01 Feb 2003 01:39:28

Hi everyone. I've finally managed to create two web sites with photos and stories from the 2002 eclipse. The first is on my personal web site <http://users.bigpond.net.au/smr/ecl02.html>

The other is for my local astronomy club, the IAS. Follow the Eclipse 2002 links from the home page. <http://members.optusnet.com.au/~smr/>

I expect to put some higher res and composite shots on my site in the near future. Cheers, Steve.

#### Eclipse of 2002 Dec 4

From: Jim Low To: Solar Eclipse <SOLARECLIPSES@AULA.COM> Date: Thu, 16 Jan 2003 00:52:32

Okay, here's my maiden post to this group. Let's hope I got it right. I toured Australia for two months, timing it for the eclipse on December

4. It was my 11th eclipse. Looking forward to 2006.

My report, along with a few pictures, are at my web site: <http://members.rogers.com/jimlow/ec2002.html> and I'll add more when I get time. - Jim Low Toronto Centre, Royal Astronomical Society of Canada [vrania@rogers.com](mailto:vrania@rogers.com)

From: Chris Malicki

Jim Low states in his report: "Although I didn't meet anyone else from Canada, some told me they saw a group flying the Canadian flag about two kilometres down the road. As I had already started my regular eclipse observation program of making temperature observations when I heard about the other Canadians, I couldn't search for them. Okay: who else from the RASC came that I don't know about?"

As I wrote to the RASC list, and to the SE list, I was flying a large Canadian flag 2 1/2 km from the centreline very close to Jim's site. I am very delayed in posting photos on my web site but will do so soon, including a photo of my site with the Canadian flag. Chris Malicki "Carrying us away, Oh ever more away, Time" (1967) <http://webhome.idirect.com/~kmalicki>

**Wendy's Done it again (outdone herself, actually)...**

From: Glenn Schneider To: SOLARECLIPSES@AULA.COM Date: Sat, 01 Feb 2003 08:51:46

**TSE  
2002**

If you haven't seen Wendy's recently posted work on TSE 2002, don't delay for another second. You are in for a treat: <http://www.wendycarlos.com/eclipse/02eclipse.html> -GS-

**TSE 2002 Golden Totality**

From: Glenn Schneider To: SOLARECLIPSES@AULA.COM Date: Fri, 31 Jan 2003 07:33:38

For once I'll be brief: [http://nicmosis.as.arizona.edu:8000/ECLIPSE\\_WEB/ECLIPSE\\_02/TSE2002\\_TOTALITY\\_IMAGES.html](http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/ECLIPSE_02/TSE2002_TOTALITY_IMAGES.html) I believe this implicitly speaks to three questions/issues which were discussed in this forum before this eclipse

1. Will a solar elevation of only 1.5 degrees significantly degrade an eclipse observation (due to the very large air mass)?
2. How "bad" will eclipse photography be at ISO 3200.

I'll let the images speak for themselves, and you decide... FYI - If the lunar disk looks elliptical, don't bother adjusting your monitor... that is indeed refraction. Glenn Schneider

From: Vic & Jen Winter

Glenn, I really like your contact sheet file. It was disappointing to be teased by all the beautiful thumbnails and not have the chance to zoom in closely on the interesting ones. In particular, I'm very interested in looking at your frame entitled, "H23\_50". I've heard so many things said about the near full-disk chromosphere view of this eclipse as seen from Australia; but thus far not seen any great photo representation of this. Do you have any scans of the file? I looked in the "high res image gallery" and it was missing for some reason in the directory listing. Looks pretty GOLDEN to me! Clear Skies, jen

From: Harvey Wasserman Great photos, Glenn. Thanks. What is the band of red at the top? Is this 'real' or an artifact? Harvey

From: Joel Moskowitz

The most that the chromosphere could be seen was about 1/3 around the disk, The rest of it were prominences and probably a reflection of the non-visible part of the chromosphere by the corona. I uploaded a frame from my video that illustrates this: <http://homepage.mac.com/joelmoskowitz/ECLIPSE/PhotoAlbum9.html> Joel M. Moskowitz, M.D.

From: Glenn Schneider

I have posted additional images from TSE 2002 to my web server at: [http://nicmosis.as.arizona.edu:8000/ECLIPSE\\_WEB/ECLIPSE\\_02/TSE2002.html](http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/ECLIPSE_02/TSE2002.html) Which is the URL from which all future images and information will also be linked. I will continue to work on this over the next several days, so check back occasionally. Sorry for the earlier omission. You can find this "missing" frame on the above page. See: CHROMOSPHERE: PRELUDE TO CONTACT III (There is a story behind this one particular image, but I'll put that together on my server as this continues to evolve. In the mean time the image will have to speak for itself). That IS an image artifact, due light scatter/diffusion within the red-sensitive layer of the film itself from these rather deeply exposed images in the inner corona. I had thought to "edit it out" but didn't at this point. More to come. Cheers, -GS-

From: Glenn Schneider

Actually, just before third contact, the chromospheric arc extended more than a full hemisphere. [http://nicmosis.as.arizona.edu:8000/ECLIPSE\\_WEB/ECLIPSE\\_02/DECON\\_FRAME\\_23\\_50.jpg](http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/ECLIPSE_02/DECON_FRAME_23_50.jpg) That frame (unfortunately) was affected by some "jitter", but I think the extent of the chromospheric arc is unambiguous. Glenn Schneider

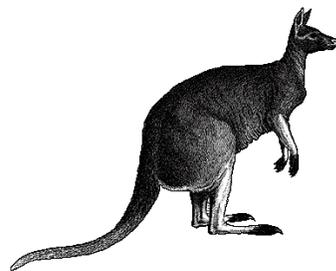
From: Joel Moskowitz

I would have to agree with Glenn. By now everyone has heard about the Shuttle disaster. How terrible.



Ellen Bruijns, 2002

Picture of TSE2002 by Ellen Bruijns



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**NASA Web Site for ASE 2003**

From: Fred Espenak To: SOLARECLIPSES@AULA.COM Date: Tue, 07 Jan 2003 15:11:09

**NASA Web Site for ASE 2003**

I've just created a new web site on the Annular Solar Eclipse of 2003 May 31. The web site includes high and low resolution versions of maps appearing in the NASA publication TP 2002-211618 "Annular and Total Solar Eclipses of 2003".

The site also includes tables of Besselian elements, geographic coordinates of the path of antumbral shadow, physical ephemeris of the antumbra, topocentric limb profile corrections, and local circumstances for several hundred cities. Most of these tables are taken directly out of the NASA 2003 eclipse publication.

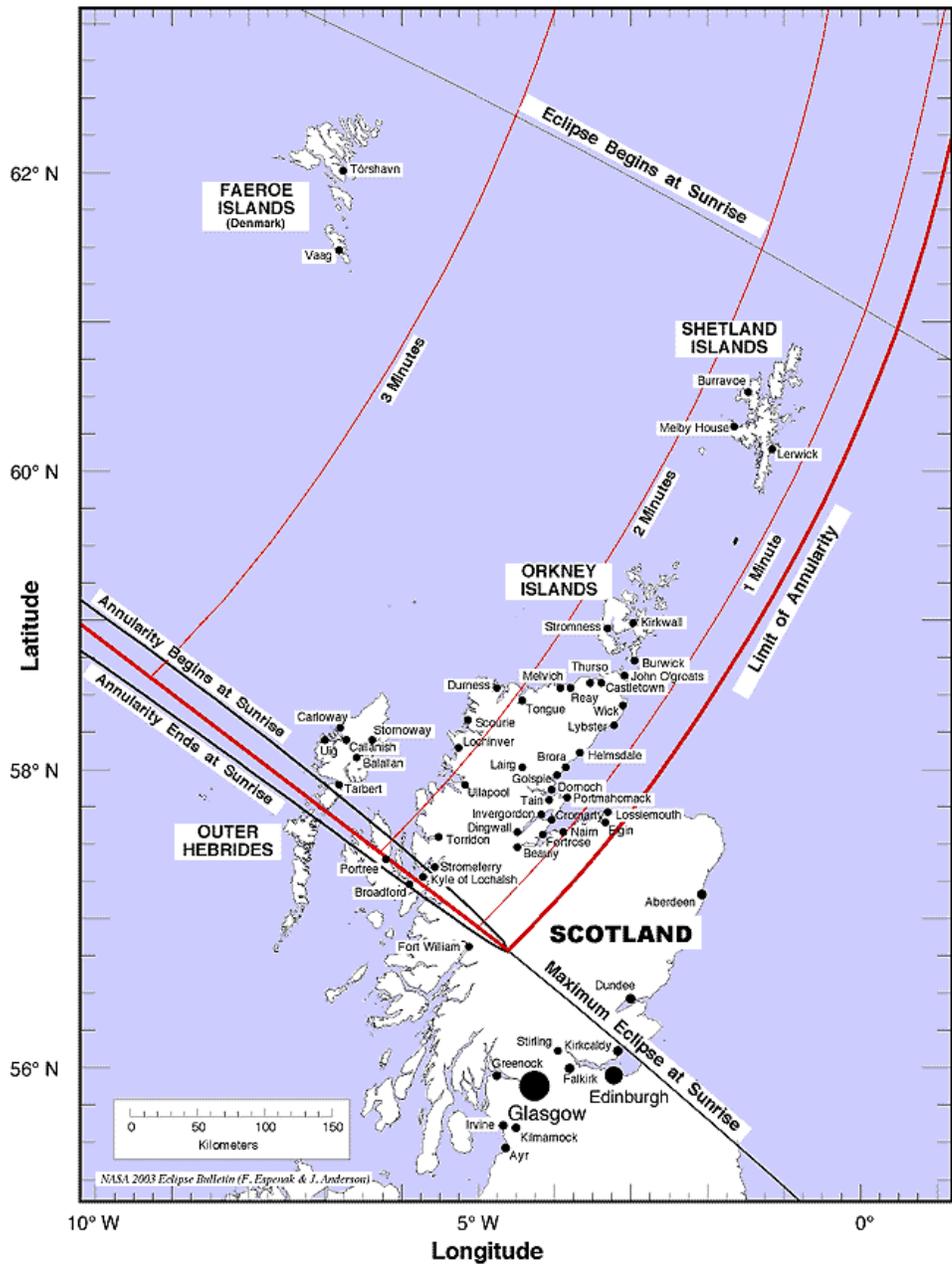
The address of the 2003 Annular Solar Eclipse web site is:

<http://sunearth.gsfc.nasa.gov/eclipse/ASE2003/ASE2003.html>

In the coming weeks, I will add weather prospects, the lunar limb

**Annular Solar Eclipse of 2003 May 31**

**FIGURE 1.5 - THE PATH THROUGH SCOTLAND AND FAEROE ISLANDS**



profiles and and other relevant data.

Please contact me about any typos, corrections or suggestions.

I'd also like to thank Michael Gill <[eclipsechaser@yahoo.com](mailto:eclipsechaser@yahoo.com)> for kindly reviewing the content of this web site before making it public. - Fred Espenak



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**31 May, 2003 - Any plans?**

From: klipsi@bluewin.ch To: SOLARECLIPSES@AULA.COM Date: Fri, 10 Jan 2003 14:36:38

>Klipsi - Yes, I looked at that flight after your first posting. This sounds like a plan with excellent prospects, but I would need to get back and forth from Florida to Seattle to make it happen - just not in the budget, unfortunately.

not necessarily, I would think. You can try to get an openjaw roudtrip ticket. First Florida to Amsterdam, via Seattle and NW34, and return Amsterdam to Florida directly . If compare rates with KLM, as they are codeshare partners with NW. NW34 is same as KLM6034.

this kind of openjaw combination may be difficult to get over a website. Best ask a travel agent, or KLM / NW tollfree numbers, and explain what you want to do: fly to Amsterdam from Florida via Seattle NW34 /KLM6034 on May 30, and return straight to Florida. KLM sometimes has amazing good deals. I once got a flight Geneva Switzerland to Dallas TX , roundtrip for about 290 US\$ . Of course, the cheapest tickets imply usually a minimum stay at destination (Amsterdam) of 7 nights, or at least the night of Saturday to Sunday.

>I love that this eclipse happens on the "far" side of the earth, if you will. How rare is that?

It is unusual, but not extremely rare. The 2000 July 30/31 partial eclipse I saw in Canada's High Arctic, on Baffin Island, a few hours before local midnight July 30, while it was "on the other side" daytime in arctic Sibiria July 31. Klipsi

**Trip to ASE in Island**

From: Gernot Meiser To: SOLARECLIPSES@AULA.COM Date: Tue, 14 Jan 2003 15:35:25

Any interest for a short organized tour to the ASE at 31 May in Island?! We can warmly recommend the small agency ICE-ZEIT, running by Michi Arnold and Antonia who are Island specialists since years...

Informations about the trip at [www.ice.zeit.de](http://www.ice.zeit.de) or in a summary hereunder:

Best regards Pascale Demy & Gernot Meiser

I C E L A N D Solar Eclipse Tour Trip to the annular solar eclipse / 5 days 29.5. - 2.6.2003

Trip through a fantastic landscape and a geologically young land. We discover active Geysirs, explore vulcanos and black lava deserts, rugged canyons, impressive waterfalls and glaciers. We enjoy the often changing light with its arctic atmosphere, inmittle of the impressive icelandic landscape.

**S c h e d u l e**

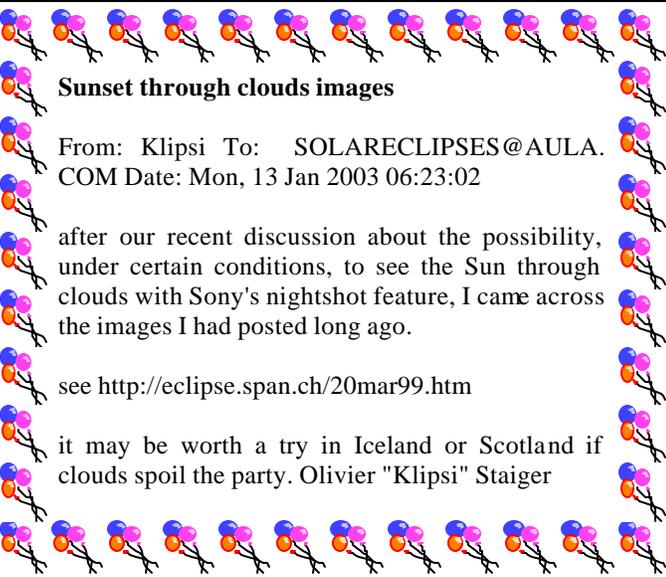
1. Day  
flight with Icelandair from Frankfurt to Keflavik/Iceland ride from Keflavik via peninsula Reykjanes to Fludir (accomodation for 3 nights in the Farmhotel Sydra Langholt, with hot pot beside the house)

2. Day  
- Thingvellir National Park: Geologically very interesting because of a tectonic set due to the continental drift. The impressive National Park is a historically very important place, as we can find the roots of the Icelandic democracy here.

- Area of Geysir: one of the high temperature areas of the country. All the hot springs in the world are named like the "Geysir", which is to be found in this area. We will also discover his "little brother" "Strokkur" with eruptions every 10 minutes: 20 meters high are the hot water fontains - a very beautiful spectacle! Gullfoss: The Golden Waterfall. Many people think, it's the most beautifull waterfall in Iceland.

3. Day  
ANNULAR SOLAR ECLIPSE: 04.08. am  
- Háifoss: wonderful waterfall, 122 m high (!!) in a fantastic canyon  
- Hékla: one of the most active vulcanos of Iceland (last eruption 02/2000).  
Black deserts of lava sand, young and rugged lavafields without vegetation are fascinating everybody.

4. Day  
- Seljalandsfoss: Waterfall at the southcoast, where we can walk behind. This is a really unusual feeling  
- Skogafoss: Impressive waterfall with a hight of 60 m. late after-



**Sunset through clouds images**

From: Klipsi To: SOLARECLIPSES@AULA.COM Date: Mon, 13 Jan 2003 06:23:02

after our recent discussion about the possibility, under certain conditions, to see the Sun through clouds with Sony's nightshot feature, I came across the images I had posted long ago.

see <http://eclipse.span.ch/20mar99.htm>

it may be worth a try in Iceland or Scotland if clouds spoil the party. Olivier "Klipsi" Staiger

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noon: Reykjavik. The rest of the day is free for own explorations. Pubs, Cafés, Culture, etc... accomodation in Hotel Gardur, Reykjavik

5. Day

- ride to Keflavik airport, Flight to Frankfurt

This trip will be accompanied by Gernot Meiser & Pascale Demy

Pascale & Gernot: two very nice specialists in sun eclipses and astronomical photography. In preparation for the total sun eclipse in 1999 Gernot was often interviewpartner at the most famous German TV-news like Tagesschau, heute journal, Tagesthemen etc. They also give lectures at Universities and observatories. Moreover they made TV and movie productions. They normally only spend little time in Germany, they are mostly on expeditions all over the world to discover the "Darkness".

Price & benefits

Minimum: 15 persons /// Maximum: 20 persons

Price : 1180,00 €per person in double rooms

Single room additional charge: 96 €per person. (Single rooms are only available in a certain quantity and are given out in the order of bookingdates.)

Included

- flight with Icelandair Frankfurt/Keflavik, and retour
- 4 nights accomodation in double rooms without private facilities
- demi-pension (rich breakfast and diner, except last day in Reykjavik because evening free for own activities)
- roundtrip in an icelandic coach
- special guides: Pascale Demy & Gernot Meiser
- leading tourguides: Antonia Hüning and/or Michael Arnold

Not Included Airport tax (at present about 43 €), extra trips like horse riding, snowmobile riding etc.

Please don't forget to take along: bathing clothes, towels, slippers!!!

contact: Ice-zeit Michael Arnold & Antonia Hüning Schormühlstrasse 25 D- 95349 Thurnau Tel. +49(0)9228-99139  
Fax +49(0)9228-5446 michael@ice-zeit.de antonia@ice-zeit.de

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From: Evan Zucker

I was stationed in Iceland for 13 months with the U.S. Air Force from 1984-85, and so I know how beautiful the island is. Of course, it's not known for its clear weather, but even if it's cloudy there are a lot of unique attractions to see there. Some of my fellow pilots and I circumnavigated the island by car on the weekend of the summer solstice, which is easier said than done because, at least at that time, none of the inter-city roads in the country were paved outside of the Reykjavik area.

For those of you who may have been confused, "Island" is the Icelandic word for Iceland. That's why Icelandic cards have an IS decal and the fighter jets that were stationed there had an IS tail flash. -- EVAN

### ASE 2003 Trip - Iceland - Urania

From: hilde & werner To: SOLARECLIPSES@AULA.COM Date: Wed, 15 Jan 2003 20:05:38

Urania, the public observatory of Antwerp, announces a 2-weeks trip to Iceland to observe the annular eclips of 31 Mai 2003, from 29/05/03 untill 12/06/03. We will observe the eclips from the Myvatn region, in the northern part of Iceland, and will then continue for an exploration of the geological highlights of the island, following mainly the Ring Road, ending our tour in Reykjavik. A more detailed description of this trip (in Dutch) can be found on <http://www.uranial.be/php-txt/dynpage/ijland.php>.

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3**Updates to NASA Web Site for ASE 2003**

From: Fred Espenak To: SOLARECLIPSES@AULA.COM Date: Mon, 27 Jan 2003 16:16:31

Updates to NASA Web Site for ASE 2003

I've just added some new material to the NASA web site on the Annular Solar Eclipse of 2003 May 31.

New material includes:

1) Section's 1.01 through 1.08 from the NASA bulletin "Annular and Total Solar Eclipses of 2003"  
(<http://sunearth.gsfc.nasa.gov/eclipse/ASE2003/ASE2003.html#text>)

2) Figure 1.7: Lunar Limb Profile for the Eclipse  
(<http://sunearth.gsfc.nasa.gov/eclipse/ASE2003/ASE2003gif/ASE2003-7b.GIF>)

3) Local Circumstances Eclipse Calculator for the eclipse. This allows you to calculate the circumstances for any geographic location and it includes the effects of the lunar limb profile. Special thanks to Chris O'Byrne for making this Java application available.  
(<http://sunearth.gsfc.nasa.gov/eclipse/ASE2003/ASE2003txt/ASE2003-calc.html>)

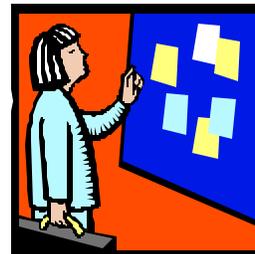
4) The complete NASA publication TP 2002-211618 "Annular and Total Solar Eclipses of 2003" is now available as an PDF file of 2.4 MB.  
(<http://sunearth.gsfc.nasa.gov/eclipse/SEpubs/TP211618.html>)

The web site also includes high and low resolution eclipse path maps, tables of Besselian elements, geographic coordinates of the path of antumbral shadow, physical ephemeris of the antumbra, topocentric limb profile corrections, and local circumstances for several hundred cities. Most of these tables are taken directly out of the NASA 2003 eclipse publication.

The address of the 2003 Annular Solar Eclipse web site is:

<http://sunearth.gsfc.nasa.gov/eclipse/ASE2003/ASE2003.html>

In the coming weeks, I will add weather prospects and and other relevant data.



Please contact me about any typos, corrections or suggestions.

I'd also like to thank Michael Gill <[eclipsechaser@yahoo.com](mailto:eclipsechaser@yahoo.com)> for kindly reviewing the some of the new material before making it public. - Fred Espenak

**Info wanted on trips to see 2003 total eclipse**

From: Sheridan Williams To: SOLARECLIPSES@AULA.COM Date: Sat, 01 Feb 2003 16:04:13

Would readers please send Alfred Burns info on trips to see the 2003 total eclipse. Send them to: [albert.burns@btinternet.com](mailto:albert.burns@btinternet.com)

From: "Albert Burns" <[albert.burns@btinternet.com](mailto:albert.burns@btinternet.com)> To: <[chasers@clock-tower.com](mailto:chasers@clock-tower.com)> I have seen the last three eclipses and am interested in the 2003 eclipse in Antarctica . Any information about trips? A . burns

**Weather Prospects added to NASA ASE 2003 web site**

From: Fred Espenak To: SOLARECLIPSES@AULA.COM Date: Wed, 29

I've just added weather prospects information to the NASA web site for the Annular Solar Eclipse of 2003 May 31. New material includes:

1) Section's 1.09 through 1.14 from the NASA bulletin "Annular and Total Solar Eclipses of 2003"  
(<http://sunearth.gsfc.nasa.gov/eclipse/ASE2003/ASE2003.html#weather>)

2) Table 1.16: Weather Statistics for the 2003 Annular Eclipse  
(<http://sunearth.gsfc.nasa.gov/eclipse/ASE2003/ASE2003tab/ASE2003-Tab16.html>)

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3) Key to Table 1.16  
(<http://sunearth.gsfc.nasa.gov/eclipse/ASE2003/ASE2003tab/ASE2003-Key16.html>)

4) Errata for the 2003 NASA Bulletin  
(<http://sunearth.gsfc.nasa.gov/eclipse/SEpubs/TP211618errata.html>)

The web site also includes high and low resolution eclipse path maps, tables of Besselian elements, geographic coordinates of the path of antumbral shadow, physical ephemeris of the antumbra, topocentric limb profile corrections, and local circumstances for several hundred cities. Most of these tables are taken directly out of the NASA 2003 eclipse publication.

The address of the 2003 Annular Solar Eclipse web site is:

<http://sunearth.gsfc.nasa.gov/eclipse/ASE2003/ASE2003.html>

Please contact me about any typos, corrections or suggestions.

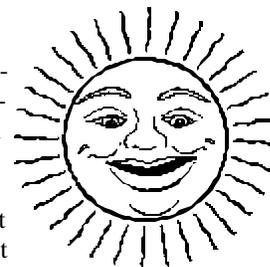
I'd also like to thank Michael Gill <[eclipsechaser@yahoo.com](mailto:eclipsechaser@yahoo.com)> for kindly reviewing the some of the new material before making it public. - Fred Espenak



## TSE 2003

### NEW 2003 ECLIPSE EXPEDITION!

From: Vic & Jen Winter - ICSTARS Astronomy To: SOLARECLIPSES@AULA.COM Date: Fri, 10 Jan 2003 19:22:28



It's with great pride and excitement that we make the first public announcement of a NEW expedition for the 2003 Total Solar Eclipse.

**LAND OF THE MIDNIGHT ECLIPSE!** Novolazarevskaya - Antarctica

Due to recent treaties signed in late 2002, Antarctica will, for the first time allow tourism to the Russian Science Station, Novolazarevskaya. Per this treaty, the operations corporation, ALCI who gained attention after coordinating the rescue effort of ice-bound fishermen in 2002; will lead operations to the base.

Observing will be from the ground at the Novo science station. 6-hour (pressurized) flight will depart from Cape Town directly to Novo.

The expedition will run 11 days, as it is necessary to arrive several days in advance of the scheduled flight to be prepared for inclement weather. It is a bit shorter and less expensive than some other expeditions.

Weather at Novo / Maitri is reservedly reported between 44% and 55% chance of clear skies.

The Eclipse will be total just 16 minutes after local midnight. The eclipse geometry will be very unusual, with the sun moving in the South from west to east, lowering to nearly the lowest point in the sky at approx. 12:16am. Just above the horizon, the eclipse is total for an estimated 1:20. Then, after totality is past, the sun will rise again as it reaches 4th contact.

Further information concerning itinerary, details and terms can be found at: <http://www.icstars.com/AstronomicalTours/Antarctica2/Index.html>

Information about the Novo station and the aircraft can be found at: <http://www.icstars.com/AstronomicalTours/Antarctica2/Novo.html>

Anyone with further questions can contact me directly or request information from the website. Clear Skies, Jen Winter - Owner

From: Mark Alsip

Wow. My favorite tour company does it again. Incredible.

**Antarctica Flight 2003**

From: klipsi@bluewin.ch To: SOLARECLIPSES@AULA.COM Date: Fri, 03 Jan 2003 14:46:16

I see that there are greatly reduced prices on seats next to window. I highly recommend them. They are very affordable and you will see the eclipse, guaranteed. If I would go for that flight, I would definitely take a business class seat next to the window, or even firstclass, but still next to the window. I flew a B747-400 on upper deck (QF64 ) last November and know what they look like. If you are on a tight budget, I recommend you take the seat next to window, at reduced cost, and use the saved money for a bottle of great Champagne or better even a bottle of Penfolds Grange, best wine of Australia and among the best in the world ! -) Klipsi

From: Mark Alsip

The pricing text has been posted by others, so I won't repeat it. Just a comment about them not answering your email, Joerg...

I exchanged several emails with them to clarify the seating arrangements and though the responses were a little slow in coming, I felt they were very well thought-out replies and somebody on the other end was obviously paying a lot of attention to my questions and concerns.

Unfortunately, I didn't feel the seating arrangements were really going to work out for what I was looking for, so I had to pass on this one. However, the people did seem very dedicated to answering my questions, so I'd encourage you to email them again if you have concerns. The replies were slow in coming, but they did come! -- Mark

From: Dave Balch, The Stay-at-Home CEO

I just received my confirmation for that flight yesterday. I'm not sure what my plans will be, but put me on the list and I'll try to make it! Dave

From: KCStarguy@aol.com

Just curious , is there a website with info about cost and itinerary? what is the cost? why would anyone book a chair on the non eclipse window?

From: Klipsi

Carter Roberts just did post a long message with full detail. Did you not receive it ? I can resend it to you if needed. Here is in short :

### Total Eclipse Flight 23-24 November 2003

#### Reduced prices USD

Eclipse First Class \$6,000

Eclipse Business Class \$5,500

Eclipse Business Class restricted viewing(16A&30A) \$5,000

Eclipse Business ñ row of two \$7,000 REDUCED

Eclipse Business ñ restricted viewing row of two \$6,300 REDUCED

Eclipse Business Class adjacent to window seat \$2,200 REDUCED

Eclipse Business adjacent to Window seat (restricted view) \$1,600

Eclipse Premium Economy Window \$4,000

Eclipse Economy adjacent to Premium window seat \$1,200 REDUCED

Eclipse Premium Economy aisle seat \$ 800 REDUCED

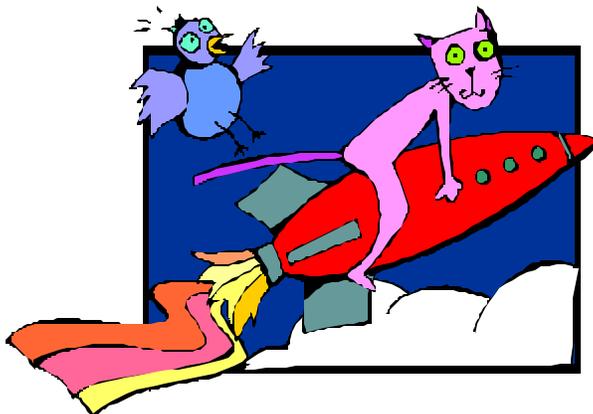
Eclipse Premium Economy ñ row of three \$5,500 REDUCED

Eclipse Premium rows of two (70-73) \$5,200 REDUCED

Eclipse Standard Window (over or near wing) \$3,500

Eclipse Standard Adjacent to Window seat (over or near wing) \$ 820

Eclipse Standard Aisle seat same row (over or near wing) \$ 650



(Continued on page 57)

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Eclipse Standard ñ complete row \$4,500 REDUCED

> why would anyone book a chair on the non eclipse window?

because the flight is also, and mainly, one of their normal Antarctic flights. You usually take that flight to see Antarctica. Most of times they do it from Melbourne or Sydney. Classic 12 hours tour, 4 hours down, 4 hours Antarctica, 4 hours back. The eclipse is bonus. Doing that flight out of Perth allows them to reach the path of totality safely. Klipsi

From: Geoff

Klipsi - If you bought a seat next to the window, you basically wouldn't have any right to look through the window. Whoever bought the window seat would have full and unrestricted access to it, if they so desire. If they buy business class window seat, they are entitled to use the two windows all to themselves. If they let you use a window, thats nice, but they definitely don't have to. --Geoff

From: Klipsi

from Croydon travel's message : A camera mounted on the flight deck will show take off and landing, the view of Antarctica and of the Eclipse on screens throughout the aircraft.

this is what I call an interesting Intranet ;-)

now THAT is question : will they do a live broadcast / webcast via satellite ?

it is most likely a wide angle camera. Does it allow zooming somewhat to the eclipsed Sun ? Even if not, broadcasting wide angle view of the eclipsed sky over Antarctica should be spectacular. Klipsi

From: Glenn Schneider

All, There has been a recent surge of SEML emails regarding the CROYDON 2003 eclipse flight. I wish to say/add a couple of things. I am working with QANTAS and CROYDON to define the eclipse intercept itself, and very happily I will be on the flight deck assisting with the navigation for the eclipse. This freed up the seat I had booked, so one more window should be available - if it is not gone already. That said, I am working strictly on the technical aspects of the eclipse portion of the flight, and I have no commercial affiliation with Croydon travel (though I believe I have developed a very good working/consultative relation with them)- so any questions regarding bookings, costs, etc. should go to Phil Asker or Gayle Brown at Croydon. (Pat P: Please forgive me, this is NOT intended as a commercial endorsement - but I know interest is running high). I understand from my last correspondence with Phil Asker that subside window seats are going fast.

The final details of the eclipse intercept have not yet been worked out. I have a meeting planned with Cpt. John Dennis (who will be piloting the flight) in March to iron out many details. However, the two variants under study are summarized at:

[http://nicmosis.as.arizona.edu:8000/ECLIPSE\\_WEB/ECLIPSE\\_03/CROYDON\\_ECLIPSE.html](http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/ECLIPSE_03/CROYDON_ECLIPSE.html)

Please note this is preliminary and subject to alteration - but should give you the basic idea.

Window sharing: Crydon is charging a significant premium for exclusive use of the sun-side window seats by eclipse viewers. Do NOT count on booking an adjacent seat and seeing the eclipse, unless you arrange with a "partner" to share. Biz class seats have two or 3 windows. On the QANTAS B747-400 it is quite possible for one person to use a Biz class window seated and one on the floor in front of the seat with a second (or third windows). Contact Phil about 2 vs 3 window biz (or first) class seats. Sharing a row (not seat) in this manner may be as cost effective as a coach window/row used exclusively. THIS IS MY OPINION and not a statement from Croydon.

Very soon Phil will be sending out a clarification/revision on the exclusive use of sun-side windows for eclipse viewers. He has allowed me a preview of that, and I think all will fins it very comforting, but I must defer to him to present it.

I will be on work related travel, and tied up with non-eclipse work through 24 January, so any replies on or off SEML may go unan-

(Continued on page 58)

swered for a few weeks. For that I apologize in advance. Sincerely, Glenn Schneider

From: Michael Gill

<<Just curious , is there a website with info about cost and itinerary? what is the cost? why would anyone book a chair on the non eclipse window? Dr.Eric Flescher >>

Croydon Travel's website has a page about this flight.

Go to <http://www.antarcticaflights.com.au> and click the "JUST RELEASED - SOLAR ECLIPSE FLIGHT 24 NOV 2003" link.

I'd recommend that participants bookmark the page for future updates.

Note, that maximum eclipse occurs at 22:49UT on November 23, but Perth (from where the flight departs) is 8 hours ahead of UT. Michael Gill

From: Michael Gill

Sorry to sound so selfish here, but the person in the seat next to me is guaranteed NOT to see the eclipse. We eclipse-chasers are paying a substantial premium for the exclusive use of the windows during the eclipse intercept.

In return, the person next to me can have 100% of the viewing time over Antarctica as I have zero interest in that.

I would only recommend these non-window seats to spouses or friends of eclipse-chasers who are willing to share or to Antarctica buffs.

People turning up at Perth airport hoping that they might look over the shoulder of an eclipse-chaser during totality may find themselves in for a disappointment. Several people who have booked places on this flight feel the same way as me. Michael Gill

From: Mark Alsip

I would make the opposite guarantee: Anyone booking a middle seat next to an eclipse chaser will be guaranteed to NOT see the eclipse. It's not a question of selfishness -- I can't think of another hobby where sharing the joy is so prevalent -- but of practicality. We're not talking about sharing the sky, but a small window. A very expensive small window. And a very short totality.

I didn't book this trip out of fear of the conflict that would arise if the person sitting in the middle seat had shown up with any expectation of seeing the eclipse. The organizer emailed me to say people with "exclusive" window seat access would only be expected to share during the sight-seeing portion of the flight.

"exclusive" and "share" are mutually exclusive.

Having been stuck in a middle seat on many commercial flights, I know from experience that sight-seeing is next to impossible from that position. True, the sight-seeing portion is supposed to be 1 or 2 hours, plenty of time to share \*before totality\*. But what if it's cloudy? What if the flight is delayed? I tried to share a seat during an overflight of Greenland a few years ago, and as far as photography and sightseeing went, it was a disaster -- when the clouds \*did\* break, I was always looking at somebody's back, listening to them say "OOOH! How beautiful..."

From: gsims@iprimus.com.au

I agree, It's not being selfish. If you pay for a window, you get one! If you pay 1/4 the price for an isle, you get an isle. --Geoff

From: Matthew Poulton

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I have been following comments regarding the Antarctic eclipse flight with interest, as I would very much like to be on the passenger list come November. However, given that I am still paying off PhD debts, the minimum price window seat at US\$3500 is still a little above my budget. Whilst I concur with previous comments that those paying the premium for window seats should be entitled to exclusive use of that window, (I envisage improvised curtains to block out unwanted cabin lighting, camera flashes, nosy neighbours etc) I believe that for those passengers with little or no photographic equipment, it is perfectly possible for two people to share one window. Indeed, on regular flights whilst flying over mountain ranges etc, I have often enjoyed views (comfortably!) together with my flying neighbour.

I gather that all the sun-side window seats have now been sold and that a short waiting list exists. I am considering joining this list for a block of 2 or 3 seats, assuming that I can find someone willing to enter into a 50/50 window/cost sharing agreement. Whilst I realise that the majority of people going from this list will have plenty of equipment and barely enough room for themselves to view, I would be interested to hear from anyone else who would be interested in economising a little by sharing a window – particularly if they have already made a reservation.

One separate point: For those starting from Sydney, it would be advisable to book accommodation for the days leading up to the flight, as soon as possible, as the final of the rugby world cup is being held in the city on Saturday 22nd November and beds may be at a premium (just like any other eclipse then!) Regards, Matthew Poulton

From: Jean-Luc L. J. DIGHAYE

I booked two first class seats by Croydon on behalf of the EurAstro Association. So, we are likely to meet in Sydney just before we go for the eclipse. Thank you for the invitation - and stay in touch with me. Jean-Luc <http://www.eurastro.de>

### 2003 Antarctica TSE Site Inspection

From: Vic & Jen Winter - ICSTARS Astronomy To: SOLARECLIPSES@AULA.COM Date: Mon, 20 Jan 2003 01:12:22

On February 2, 2003 I depart for my site inspection of the Novo station in Antarctica for the TSE in November. This is where we will be flying our aircraft and from where our new ground-based team will observe.

I will conduct a series of light surveys and tests. I will be photographing the environment and facilities, and making more precise GPS coordinate measurements of various observation sites. While I'm there I also hope to speak with the staff at the science station to learn what they know about their own weather via data collection. I should be able to get a firm answer on the viability of a back-up flight plan to observe from the air with our pressurized planes. Additionally, I will perform a small number of battery-life tests and function tests for a number of common cameras. I will take our Nikon D-100, an N90S, a Sony camcorder, a late-model P/III HP laptop. I may perform some other battery-life tests, but will determine those in coming weeks, and when I decide how much weight I have compiled. I also hope to learn what electrical power capabilities are present, and perhaps discern iridium phone coverage at the base.

As my time at Novolasarevskaya will include some time with the sun below the horizon, I am naturally, hoping for the rare chance to glimpse Aurora Australis from 70 degrees south.

Once again, I am asking if any list member has any special requests. If you have any non-intrusive tests you would like me to conduct or information you would like me to gather, please let me know so I can try to help.

Also, as I may be the only representative from our community to perform one of these inspections in Antarctica - I may be our only voice in expressing our collective wishes in planning. I would like to be representative of the preferences and needs of a broad range of umbraphiles.

I hope you will all share your thoughts and ideas with me before I make this journey on your behalf. I leave pre-dawn on February 2nd. Details of the planned expedition so far can be found at: <http://www.icstars.com/AstronomicalTours/Antarctica2/Index.html> with base information at: <http://www.icstars.com/AstronomicalTours/Antarctica2/Novo.html> Clear Skies, Jen Winter - Owner, ICSTARS Astronomy & Astronomical Tours



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5**2005 - Close to islands**

From: Geoff To: SOLARECLIPSES@AULA.COM Date: Sat, 04 Jan 2003 08:59:59

Hi there, I have been looking at Emapwin, and it appears that the total part of the eclipse does pass VERY close to land. At 23.93°S, 130.73°W is the Oeno Island - part of the Pitcairn Islands, and lies almost exactly on the southern limit of totality (none of the island appears to lie within the path though). From the small amount of research I did in about 10 mins on the Pitcairn islands (having no prior knowledge of them), it appears they are a group of tiny, virtually unpopulated tropical islands (the Pitcairn Island itself, not far from Oeno, has a population of 50).

Permission by the New Zealand government is required to go to both these islands, and arrangements have to be made to stay with locals. Apparently Oeno Island is a "holiday destination" for the locals who live on the Pitcairn Island. As far as tourism go, it seems as though it is possible to get there, but far from easy.

I am not sure if this information is of any use to anyone, however I thought I would let you know. The centre line would be around 12km (I think) from the Oeno island, to receive a duration of about 30s. --Geoff

From: Jean Meeus

Concerning the mail of Geoff: Recently I received from Daniel Crussaire (a French astronomer) his map of the eclipse track near Oeno. According to that map (which I didn't check), the path of totality just misses Oeno.

If somebody is interested, I can send him that map. It is a "jpg" file, size 116 KB. Jean Meeus

From: Geoff

Yes it does miss Oeno, but as I said, only JUST.

From: Glenn Schneider

Indeed, the altitude of the Sun is too high. A ship will definately be in order for 2005. Glenn Schneider

From: Klipsi

in 1996 when I was on the Easter Island for the partial solar eclipse, I saw a submarine of the Chilean Navy. took several photos, one is posted here : <http://eclipse.span.ch/submarine.jpg> so I was thinking : has anybody ever chased to an eclipse zone in a sub ? Could be great with the August 1st 2008 TSE, for example, in the Arctic. Klipsi

From: Glenn Schneider

I had looked into Oneo some time ago, along with Michael Gill. Jean is, of course, quite correct. Oneo is entirely out of the path of totality, even on the NW end.

Also, before anyone else chases a dead end "Sand" or "Sandy" island, as it appears on some "maps" is actually part of Oneo, and also falls out of the path of totality. Glenn Schneider

From: Peter Tiedt

There is an excellent map pn the BDL site.

[http://www.bdl.fr/ephem/eclipses/soleil/avril2005\\_oeno.jpg](http://www.bdl.fr/ephem/eclipses/soleil/avril2005_oeno.jpg) Peter Tiedt

From: Vic & Jen Winter - ICSTARS Astronomy

We just referenced the coordinates of the island of Oeno and the vicinity in the latest version of WinOccult. This is the software the Lunar-Occultations folks use to predict bright star and asteroid occultation timings, so the lunar limb profile information is ex-



(Continued on page 61)

tremely accurate. As the timings are so crucial, we thought it would be the most accurate software for honing in on a Willcox point.

So, what we've found is that:

Oeno occupies

130deg 44' - 130deg 47' W

23deg 54' 50" - 23deg 57' S

Oeno is outside of the range of totality by perhaps 2 miles.

Calculations in WinOccult show that the eclipse from several .5 degree variations in each direction of the point of maximum will offer a duration of totality ranging approximately 30-31 seconds.

30-31 seconds? Wow!

The point at which the software located to be the centermost Long/Lat is:

130 51.00 W

23 50.00 S

First contact: 18:22:04

Second contact: 19:47:18

Third contact: 19:47:49

Fourth contact: 21:18:36

Magnitude of Maximum Eclipse: 1.006

Altitude at Maximum eclipse: 56 degrees

Distance from Center of Eclipse: .000369

Shadow Radius L2 = -.001586

Shadow movement n = +.366928



I would like to point out that other mainstream software with Eclipse Finder features that doesn't include lunar-limb profile data actually showed this L/L to be outside the path of totality.

I think if we all pitch-in, we could build a very long pier out from Oeno island to stand on the dock of the bay. We have over 2 years to do it, right? Clear Skies, jen

From: Joseph Cali

Sorry Jen, I am not sure what the current situation is re-commercial flights but I can tell you what facilities and infrastructure is there. You can fly to the Galapagos Islands. I've did it when I visited the Galapagos Islands in Dec 1994, I flew there from Equador. The flight departed Quito, set down in Guayaquil to pick up/set down passengers then continued on to Galapagos. There are sizeable airports on San Cristobal and Santa Cruz islands. The airstrips are capable of landing passenger jets. I think we were in a 727. >From San Cristobal, we transfered to our charter boat. A 60 ft 5 cabin 10 berth yacht. The cruise ships may well have come from the mainland. I couldn't tell. They can certainly load/unload passengers on the islands and the airports were quite new and would still be there even if flights are not going there now. Any travel agent could tell you in a flash. The airline was the Equador national carrier Saeta.

One thing that the people organising cruises might consider. You wouldn't want to waste your time visiting the galapagos islands in those large ships. The cruise ship passengers I spoke to spent most of their week either waiting to get a ride to the island or waiting on shore for their ride back. People I spoke to were not happy after we compared notes about how much wildlife viewing time we each had especially since we paid 1/4 what they paid. Mind you we missed out on the fancy dress ball and didn't get to dress up as penguins or boobys. Instead we made do with cocktails on the deck each evening and lobster and fish meals freshly caught each morning by our crew and 6-9 hrs per day of viewing/snorkelling.

If the big cruise doesn't work out, smaller independent groups could fly to Galapagos and charter smaller boats to go to the path providing the yachts have sufficient fuel range. The 60 ft yacht I was on would not make a very stable platform for telescopic viewing but fine for naked eye hand held binos. Joe Cali

(Continued on page 62)



From: Michael Gill

This is in good agreement with the figures posted by Fred on the following web page:

<http://sunearth.gsfc.nasa.gov/eclipse/SEpath/SEpath2001/SE2005Apr08H.html>

(see 19:48UT) Michael Gill

From: Peter Tiedt

I think there is a booboo on the part of the BDL ... Perhaps someone should tell them??? Peter Tiedt

From: JohnLX200@aol.com

Two last thoughts about pinning down eclipse limits. Most importantly, atmospheric refraction, and a second consideration, bead brightness.

I'll deal with bead brightness first. Certainly the folks using detailed limb corrections are on the right track, and their efforts to date will make it easy for them to calculate bead brightness at land's end.

If by chance the full 3km "miss distance" is just a V-shaped valley traveling tangentially across the sun's edge, then there is about 1 square arcsec of exposed photosphere. About the same as 2 seconds after true 3rd contact on a "single-bead contact" centerline.

Or if by chance it's a smooth as a billiard ball, then it's a larger area of photosphere, and about the same as 2 seconds after true 3rd contact on an "arc contact" centerline. I suspect this is not true, or the difference between the general libration solution and the occultation-detail solution would not be so significant.

Then we have to quibble about how long it takes the naked eye to detect 3rd contact in each of those circumstances anyway. No, it's not instantaneous! My own personal method of estimating detection of 3rd contact is as follows:

1. There are already areas of different brightness in different parts of the inner corona, etc.
2. The innermost corona is quite bright.
3. At 3rd contact, the eye is already distracted by prominences and chromosphere appearing.
4. Naked-eye resolution is approximately equivalent to one square arcminute pixels, of area  $3600 \text{ arcsec}^2$ . In 10x binoculars, it would be  $36 \text{ arcsec}^2$ .
5. Enough is going on that the "bead pixel" must reach 4x the average brightness of the dozens of neighboring "inner corona/chromosphere" pixels for detection of contact. It must then reach a brightness equal to the whole corona (approximately 1/10,000 the brightness, or 10 magnitudes dimmer than the whole sun) before beginning to spoil the coronal view, and midway in (logarithmic) magnitude between totality and sun before being hopelessly gone.
6. I'd estimate the innermost corona to have 1/1000 the per-area brightness of the photosphere, and the average coronal brightness "if all coronal light were equally spread over an area equal to the sun" of 1/10,000 photosphere. If the "total magnitude" of an eclipse is 10 magnitudes dimmer than the sun, then this is correct, making it also about 3 magnitudes (or about 20x) brighter than a full moon.
7.  $4 \times 3600 / 1000$  gives 14 square arcsec of photosphere as the threshold of naked-eye detection and 0.14 square arcsec for 10x binoculars. So if the bead valley(s) approach 2 or 3km deep, it seems quite likely that this eclipse would be seen as total for a few seconds to the naked eye, but as bead(s) in binoculars.

Regardless of what aperture the viewer uses, the brightening is very rapid after detection. But the sense this creates, that the sunlight

*(Continued on page 63)*

was "turned on" like a light switch, is false. The moment of detection varies significantly with aperture, especially in the case of beads. I have a time-synchronized pair of camcorder views of the 1999 eclipse showing this. Although the camcorders and zoom lenses were identical, the aperture differences from different zoom settings (and perhaps unintentionally slightly different exposure gain settings) led to very significant (multi-second) differences in contact detection in an eclipse graze zone.

But detection aside, now to the big question for purists: atmospheric refraction. The one factor which few if any eclipse geometry programs take into account is atmospheric refraction. Despite the usual excuse of "the effect is a function of atmospheric conditions at the time, such as temperature and pressure vs. altitude; and is not significant high in the sky" I JUST DO NOT SEE how modeling the atmosphere as a perfect vacuum devoid of optical properties, is considered acceptable.

Does the lack of eclipse-day weather data make a vacuum a better solution than using a reasonable set of assumptions such as the "standard atmosphere" with 15 degrees C at sea level, standard temperature profile assumptions, etc.? No!

And at the tangency contact points, it's outright scandalous, where we know the answer to be off by 60km at sea level under nominal atmospheric conditions.

I've not looked at a detailed map of the 2005 situation yet, so I'm not sure if it would place the limit closer or farther away from land.

But to underscore how important it can be in certain situations, think of two data points:

1. Atmospheric refraction under standard atmospheric conditions lets you see an object on the horizon which is about 0.5 degrees below the horizon geometrically. So an object appearing 90 degrees from the zenith is actually 90.5 degrees from it. That tells me it can move the limit line by about 0.5 degrees of the Earth's circumference, about 60 kilometers.

2. If the eclipse is at the zenith, the limit line moves 0 kilometers.

Before writing off this island, I'll figure out the magnitude and direction (180 degrees opposite the sun's azimuth) of the limit line's displacement due to standard-atmosphere refraction. Then if it looks good, it could be refined with typical weather for the date/location.

If you're looking out to sea at the eclipse, and the "zone of totality" is in the same direction, it's good news: refraction lets you see what someone offshore would see in a vacuum. If you're looking back over the island, with totality behind you, it's bad news.

It would seem to be a no-brainer to do this one from a ship. But time will tell whether any ships will go to it. If one does, then is 30 seconds of totality better than a graze at (or even just beyond) the limit on firm land, combined with the challenge to perfectly predict what will be seen from there?

I'd love to add a "beyond the theoretical limit" TSE to my collection, to go with my 1999 "below the horizon" TSE. Regards, John Hopper

From: Robert B Slobins

John: 30 seconds' totality seems like a wide-enough track. To study the flash spectrum, the island looks to be good enough. What do you think? cheers/rbs

From: Rybrks1@cs.com

Dear John; I enjoyed your detailed description of brightness relative to C2 or C3.

I had asked a question a few weeks ago about brightness. In it I suggested that this initial brightness might be due to light being reflected back off the relatively dark hydrogen gas of prominences and chromosphere from the very bright photosphere (hidden).

I happen to have Espenak's book, "Totality", in front of me right now and the photo on the cover illustrates this nicely. Look at the

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white light being reflected off the base of the prominences and base of the chromosphere. What do you think? I am sending a copy of this direct to Fred Espenak in case he has notes about film processing or any other artifacts regarding that particular photo that might render my question ineffectual. It does not seem to be corona, nor does it when I observe an eclipse.

Here was my query: Subj: Why so bright? Date: 12/16/02 12:44:08 AM Central Standard Time From: Rybrks1

Every time a total solar eclipse begins (C2), I am amazed at how bright at first the very inner area appears. (This is after all photosphere is covered, no more beads, no diamonds, etc.) This intense brightness seems to last 1 or 2 seconds. And it also seems to occur a second or two before C3.

I started wondering about it a few days after Dec 4. Could it be physiological? I always wear a patch on my distance eye. But that would not explain it just prior to C3.

It seems very apparent to my eyes. And it seems brightest to me at the base of large prominences. I was using my new Coronado H2 alpha scope during the partial phase so I knew that there was a monster wide prominence at the 1 o'clock spot. When it went total the base seemed extremely white bright to the point where it definitely drowned out the pink of the prominence for a few seconds. I jumped on the 100mm x 25 power binocs and it seemed true in the binocs too for a short time. Could it be that the base of the prominences/chromosphere (relatively darker gas) are reflecting the intensely bright photosphere just below? Or is it just that the corona is brighter nearer the solar limb? The brightness is always centered near the contact point and not near the north or south points of the Sun which overlap a wider part of the limb. The brightness seems to cover maybe a 30 or 45 degree arc of solar limb.

I did notice this effect also when I was only 6 km from the southern limit Aug 1999 and it seemed to roll around the bottom.

I am curious of everyone's opinions and perceptions on this. I don't know why it took so many years for me to now ask this question. Sincerely, Raymond Brooks

## TSE 2006

### TSE 2006 - Turkey

From: Jay Friedland To: "SOLARECLIPSES@AULA.COM" <SOLARECLIPSES@AULA.COM> Date: Thu, 16 Jan 2003

Hello all, I was just looking at the NY Times online and the featured destination is Turkey. Here are the URLs:

<http://www.nytimes.com/top/features/travel/destinations/europe/turkey/index.html>

<http://www.nytimes.com/2002/05/26/travel/FRIG.html>

<http://www.nytimes.com/2000/10/08/travel/ISTAN.html>

None of the articles are new but its nice to have them in one place - Cappadocia looks marvelous! - Jay

From: Alcovdbase@aol.com



Hello, If you are planning to go to Turkey for the 2006 TSE, I would suggest you to check out the following website for more information regarding eclipse path maps: <http://newton.physics.metu.edu.tr/~aat/TSE2006/TSE2006.html>

I will be observing the eclipse with my wife and lots of friends, either in the ancient Roman amphitheater of Aspendos (a little north-west of centerline),

<http://www.turizm.net/cities/aspendos/>

<http://www.journeyturkey.net/english/aspen.html>

or from Manavgat (at the centerline), the location of one of the most beautiful waterfalls in Turkey:

<http://www.ezoptravel.com/ezopnew/turkey/mdtrn/manavgat.htm>

<http://www.volaretour.com/infocenter/database/side.html>

Definitely we will be in the Turkish Riviera (<http://www.mfa.gov.tr/grupc/ca/caa/uu/akdeniz/riviera.htm>) where the weather prospects look more promising. Hope to see you there! Clear skies, Haldun I. Menali Amateur Astronomer Boston, MA <http://members.aol.com/astroalcove/index.html>

**March 2006 Eclipse**

From: Katherine Low To: "SOLARECLIPSES@AULA.COM" <SOLARECLIPSES@aula.com> Date: Sun, 12 Jan 2003

Just read an article last week in the Dec 2002 issue of the National Geographic by John Hare, 'Surviving the Sahara'. It is about a 3.5 month camel expedition he is undertaking starting at the lake of Chad end ending in or near Tripoli. The article includes a dessert map and what is on interest for us is that several places along this expedition (Niger/Tripoli border) are on the path of totality of the 2006 eclipse.

Who will be going by camel? Kris Delcourte

From: brian seales

Actually the gang from [www.ecliptomaniacs.com](http://www.ecliptomaniacs.com) are planning to go to Libya to view the 2006 eclipse, mainly because having driven on Madagascar roads and survived we feel that the Sahara by camel would an even better adventure. There is a travel agent in Ireland who has been running trips into Libya for the last few years and the people who have been on them say it is well worth a visit and the people are wonderful there.

Some of the South Africans and Swedes we met last December 4th plan to meet up with us. Brian Seales

From: David Makepeace

Camel??!! Haven't chased the shadow on a camel yet. Count me in. Oh, and Klipsi will do this, too!

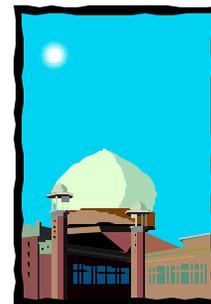
Klipsi - haven't you already made inquiries about observing this TSE from Libya? David Makepeace

From: Klipsi

how about a hot air balloon ? Klipsi

From: Fred Bruenjes

The Dakar Rally ( <http://www.dakar.com/2003/us/> ) is going through Libya, and crossing the 2006 eclipse path TODAY (Sunday Jan 12th). Stages 10 and 11 are the ones that cross the 2006 eclipse path. In the USA, TV coverage will be on the Speed Channel tonight at 7:30pm ET or 9:30pm PT. See <http://www.speedtv.com> for when the repeats are, or the Dakar website above for info on TV coverage in other countries.



It's a real good chance to get a view of what the 2006 eclipse path is like... Fred Bruenjes <http://www.bruenjes.org>

From: Carter Roberts

There will not be many people from the United States going to Libya for the eclipse. To quote the U.S. State Department:

"PASSPORT VALIDATION: Without the requisite validation, use of a U.S. passport for travel to, in, or through Libya may constitute a violation of 18 U.S.C. 1544, and may be punishable by a fine and/or imprisonment.

The categories of individuals eligible for consideration for a special passport validation are set forth in 22 C.F.R. 51.74. Passport validation requests for Libya can be forwarded in writing to the following address:

Deputy Assistant Secretary for Passport Services U.S. Department of State 2401 E Street, NW, 9th Floor Washington, DC 20522-0907 Attn: Office of Passport Policy and Advisory Services Telephone: 202-663-2662 Fax: 202-663-2654.

The request must be accompanied by supporting documentation according to the category under which validation is sought. Currently, the four categories of persons specified in 22 C.F.R. 51.74 as being eligible for consideration for passport validation are as follows:

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(a) Professional Reporters: This category includes full-time members of the reporting or writing staff of a newspaper, magazine or broadcasting network whose purpose for travel is to gather information about Libya for dissemination to the general public.

(b) American Red Cross: An applicant in this category must establish that he or she is a representative of the American Red Cross or International Red Cross traveling pursuant to an officially-sponsored Red Cross mission.

(c) Humanitarian Considerations: An applicant in this category must establish that his or her trip is justified by compelling humanitarian considerations or for family unification. At this time, "compelling humanitarian considerations" include situations where the applicant can document that an immediate family member is critically ill in Libya. Documentation concerning family illness must include the name and address of the relative, and be from that relative's physician attesting to the nature and the gravity of the illness. "Family unification" situations may include cases in which spouses or minor children are residing in Libya with and dependent on a Libyan national spouse or parent for their support.

(d) National Interest: For this category, the applicant's request must be otherwise found to be in the national interest."

Eclipse observing doesn't appear to fit any of those categories. Carter Roberts

From: gsims@iprimus.com.au

Carter, Interesting. I wonder if this applies to any other countries too (ie UK, Australia, ...). How does one go about finding this sort of information? --Geoff

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From: Gerard M Foley

There are a lot of people traveling these days, with the full blessing of the State Department, to places which I do not find to be in my national interest. Gerry

From: Fraser Farrell

Geoff, The (Australian) Department of Foreign Affairs & Trade is one place to start. Their Travel Advice begins at:

<http://www.dfat.gov.au/consular/advice/index.html>

From: Peter Tiedt

WRT the 2006 eclipse, I am investigating three options - these all in conjunction with an African Tour Operator who has vast experience in all African countries.

Tours 1 & 2 will start in Cairo.

1. Dive the Red Sea for 4/5 days, then fly to Benghazi (or close by), then coach to a point about 300km south into the desert for about 4 min of totality.

2. Pyramids, Cultural Cairo and a Nile Cruise for 4/5 days, the as for option 1.

3. This will commence in Lagos (Nigeria) (or close by) and charter a flight to NE Niger, where there will be a desert camp set up, also for about 4 minutes of totality.

The Tibesti area is a militarised zone and is extensively landmined. Also the Chad / Libya border can only be used by nationals of those countries.

If anyone wants details as they unfold, please e-mail me off list (rigel@stars.co.za) and I will place you on the mailing list, which has about 40 on it already. Peter Tiedt

From: Klipsi

(Continued on page 67)

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> Klipsi - haven't you already made inquiries about observing this TSE from Libya ?

just preliminary. but no doubt it will happen. about my previous post , hot air balloon : of course it is not that good, as the Sun is at zenith.

"did you see the eclipse ?"

"no"

"clouded out ?"

"no. Ballooned out !"

however, I had another crazy idea. You know in Australia they do each year that solar powered car race across the continent. Now, would be great to do a solar powered car race across the Lybian desert, and all cars would significantly slow down on E-day ;-) Klipsi

From: Carter Roberts

Geoff, I have not checked but know both Libya and Cuba are on that list and suspect North Korea may be. Any place that U. S. Treasury Economic Sanctions are in effect is off limits to holders of US passports.

The place to look is: [http://travel.state.gov/travel\\_warnings.html](http://travel.state.gov/travel_warnings.html) I subscribe to their travel advisories. Note that the consular information sheets give quite a lot of useful information. Carter

From: Evan Zucker

That also sounds like a pretty good tour to view the 2004 Transit of Venus. EVAN

From: Shivapuja@aol.com

<< I think some people might be able to argue persuasively that Eclipse observing is in the U.S. national interest. There are a lot of people traveling these days, with the full blessing of the State Department, to places which I do not find to be in my national interest. >>

HEAR, HEAR!!!

From: Stig Linander

In recent years, Europeans have had no problems visiting Libya. It depends on the political situation whether or not it's possible in 2006. And that situation can change to the worse in the months to come.

One of my Danish eclipse friends visited Libya in November '01 and had a tremendous experience. Tripolis, the best preserved Roman ruins outside Rome right down to the Mediterranean coast, 10 days camel trekking. Libya really has a lot to offer the vis itor.

So I'm considering Libya too for the 2006 eclipse. Best regards, Stig.

From: Bob Morris

Unlike some eclipse viewers on this list I am not rolling in money. :-)

Besides, I want to take my wife (who was in Aruba with me) and my son and his wife.

I am contemplating viewing from Antalya, Turkey.

This Mediterranean "Turkish Riviera" has 3000 hours of sunlight per year. Though the end of March is on the border of the perpetually sunny season.

Totality is 3 min 45 sec on Antalya Bay, east of the city centre.



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I can get to Istanbul from Ottawa on Air Canada air miles through Vienna via Luthansa and then either fly or bus to Antalya (12 hours), with the latter costing about \$15 US one way for two seats (for comfort) as advised by the guide books. Comments? Bob Morris (Quebec, 63; Greece, 66; Cape Charles, 70; Aruba, 98)

From: Bob Morris

<http://www.kesit.com/antalya/index.htm> and <http://www.kesit.com/guide/antalya.htm>

Antalya is a world apart with its long summers, mild winters, unpolluted waters and sandy beaches. The snow remains on the top of Toros and Bay mountains during hot seasons and you may swim in the warm waters of Mediterranean at the same day.

It's the pearl of Mediterranean. Combining history and culture it deserves the title of "capital of Turkish tourism". Kaleici where quaint Turkish and Greek houses are under protection, is the most popular center in Antalya. Traces of Byzantine, Roman and Seljuks architecture and culture can still be seen in the rustic old town. Take time to visit the archaeological museum which houses the finds belonging to historic ages of Anatolia.

Inside the city Yivli Minare and Kulliye, Karaalioglu park are in our host of places to see.

Konyaalti and Lara coasts invite you to its crystal clear waters.

Antalya is a holiday paradise in a lovely natural setting. The pine-clad Toros Mountains sweep down to the crystal clear sea forming an irregular coastline of rocky headlands and secluded caves.

The region is bathed in sunshine for 300 days of the year and is thus perfect for a lazy holiday of sunbathing and swimming, or for sporting activities such as windsurfing, water-skiing, sailing, mountain climbing, hunting and spelunking.

Those who vacation in March and April can ski in the mornings and in the afternoons swim in the warm waters of the Mediterranean. The coast is lined with magnificent beaches lapped by clear blue waters, and surrounded by pine forests, olive and citrus groves, palm trees, avocado trees and banana plantations. Important historical sites await discovery in these marvelous surroundings, which are home to a rich variety of plant and wildlife, and which are now protected as a conservation area. Holidaymakers will find everything here they can imagine for a perfect vacation.

The Turkish Riviera is the tourist capitol of Turkey. With its wide ranging accomadition, from tourist class to deluxe hotels, the hospitable people of Antalya are always ready to welcome you.

Check out the following for a cloud cover map of southern Turkey, including Antalya, used for a telescope siting project:

<http://pluto.cc.ankara.edu.tr/~derman/dermanenglish/sitetesting88/sittesting88.html> Bob Morris

From: KidinVS@aol.com

For those interested, I have put together totally successful eclipse packages for the previous 7 total eclipses. I plan, at the moment, to visit Turkey this March or April to put together a tour for the 2006 eclipse. If you have specific questions about my upcoming tour, please contact me off line, and let me know your concerns, so that when I am in Turkey, I can find the answers to your questions. As always, the costs for the tour will be very reasonable, very comfortable, and almost all inclusive. Rick Brown

From: Sheridan Williams

Why is no-one considering Turkey to view the 2006 eclipse? Best wishes

From: Marc Weihrauch

Hello,



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> I am contemplating viewing from Antalya, Turkey.

At least for the Europeans that is certainly an option. Antalya is easily and cheap to reach, being a center of tourism. Antalya itself is slightly outside the shadow path, but I hope to find a decent observing place in the vicinity - however, I don't know whether that will be easy...

On the other handside, going to Lybia also has its drawbacks: Security may be a matter of concern, and although you don't have to fear clouds sandstorms might spoil the observation.

When I see all these pros and cons I realize what an easy one Africa 2001 was :) Cheers Marc

From: Govert Schilling

I will also most certainly go to Turkey. I don't know yet about detailed weather predictions, but I would recommend Cappadocia (totality hits the eastern part of this region), which has incredibly beautiful scenery. Antalya is an ugly tourist region, and maybe you will experience hindrance from the fact that it's on the coast (?) --Govert

From: John Leppert

Dear Rick, Although we've not traveled with you (we were at Zambia 2001), I'd be interested in having you place our names on your mailing list for Eclipse 2006 info as it develops. Thanks. John Leppert

From: Robert B Slobins

Before making any decisions now, I would like to read Jay Anderson's comments on the eclipse track's meteorology.

What would happen to dual nationals, e.g. one who holds a US and another country's passport, who go to Lybia? Would he leave the US passport home? cheers/rbs

From: Mark Alsip

Turkey is my first choice for the '06 eclipse. I'm also curious why it's (apparently) being relegated to the back burner. I observed '99 from Turkey and fell in love with the country (as well as the weather prospects). Political/social turmoil was a concern then, as now, but IMHO not more or less than other countries in the path of totality.

From: KidinVS@aol.com

It does seem a bit early for everyone to start planning for the 2006 event, and I suppose that is because the thought of having to live for so long without a viable option to see an eclipse has everyone upset, as I am. I am not going to Antarctica to see the next one, and it is rather depressing to think that it will be 3 years until I will see another...that will be my 9th. However, with all the talk of Turkey, and Libya, and Chad, I thought that I might add my 2 cents...

I will most assuredly have a grand adventure planned for 2006, with plenty of space for many. I brought 48 people to Turkey in 1999, and we all had a totally amazing time. Weather prospects look good for the southern coastal area of Turkey.

I simply wanted to say that whether you join my group, or not, Turkey is an absolutely wonderful place to visit. It offers luxury, extremely kind and friendly people, wonderful food, beautiful scenery, and it will be springtime there. I traveled to Turkey in March of 1997 to plan the 1999 trip, and I went in March just to have an idea of what the weather is. Weather prospects are probably better in Libya, and Chad, and worsen as you make your way into Ukraine. The great thing about Turkey is that you will have wonderful memories of your trip even with poor weather for the eclipse (but that will not happen!!!)

Of course, politics will play a role, but for now, Turkey is the safe way to go. ...just my opinion... Rick Brown

From: Govert Schilling

Well, \*I\* am, for one. And for good reason: I was there in 1999; it's a very beautiful country, with very friendly people, very nice

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weather, very easy to travel around, good food, very cheap, etc. As I said: totality will cross Cappadocia, which is incredibly beautiful with its rock pillars, caves, etc. (For a quick Google Image search, see: <http://images.google.com/images?q=cappadocia&ie=UTF-8&oe=UTF-8&hl=en>) --Govert

From: Crocker, Tony (FSA)

I think the only reservations about Turkey are related to weather. Someone from Turkey analyzed weather a while back, and summer (1999) vs. spring (2006) in Turkey is sort of like 2001 vs. 2002 in southern Africa.

Many of us will wait until Fred & Jay quantify the weather estimates. If the weather odds in Turkey are reasonable, I suspect it will be a popular choice.

From: Klipsi

oh no, lots of people are , and lots will go to Turkey. But March in Turkey may have clouds/rain, probably a little more risky than Lybia (Jay ?) and, Lybia offers over 4 minutes of totality... Klipsi

From: Bob Morris

Antalya seems to be directly in the shadow path (3' 22"), with the center line (3' 42") slightly east of the city -- according to WinEclipse. Bob Morris

From: Bob Morris

Well, the web site references I gave must be lies then (in terms of ugliness)! :-)

And the sunshine line of 3000 hours per year (nearly 10 hours per day) seems to indicate that the bay region has very good luck with sunshine!

The map was drawn up for a telescope siting project. Bob Morris

From: Bob Morris

On Mon, 13 Jan 2003, Sheridan Williams wrote:

> Why is no-one considering Turkey to view the 2006 eclipse?

As per my posts, I am.

The only choices from my point of view are:

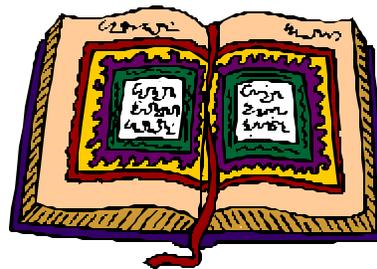
- 1) The Egyptian border east of Libya.
- 2) A cheap cruise ship out of Crete.
- 3) Anatalya, Turkey

Obviously, I'd re-assess the political problems on March 26, 2005 -- the date when I can book flights -- but the Middle East doesn't look too great.

The shadow BTW comes almost directly from the south at Antalya Bay, over the Med -- so perhaps good chance of seeing shadow.

On the other hand

- (a) Turkey seemd to be a good site in 1999.
- (b) Antalya looks great in terms of sunshine.



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(c) There seems to be all indications that Turkey is behaving herself in an attempt to get into "Europe."

As I mentioned earlier, Air Canada will fly you anywhere in Canada to Istanbul via Luthansa for (currently) 60,000 air miles -- and I can stop in Vienna for a few days no extra charge.

To me this is important as ours will be a 4 person group.

Obviously I wait Fred's bulletin scheduled for 2004.

But that telescope survey seems to hold some weight for me. Bob Morris

From: Shivapuja@aol.com

how about aboard a cruise ship in the southern mediterranean?

From: Govert Schilling

Bob: > But that telescope survey seems to hold some weight for me.

The telescope site is some 50 km north of the town of Antalya, some 2550 meters high up in the Taurus mountains, on Bakirlitepe, I believe. There, the scenery is again nice, and you may not have to worry too much about smog etc.

As for 'ugliness': of course, Antalya is great, since it is a very ancient city, but its immediate surroundings (and, for that matter, almost all of the Mediterranean coast) is just choke full of ugly concrete tourist hotels, and the town is full with European tourists, coaches, etc. I didn't like it. --Govert

From: Govert Schilling

Actually, I think Antalya is quite a bit west of centerline - just about halfway centerline and the northwestern edge of totality. Totality there lasts 3m 46s; sun is at 55 degrees. --Govert

From: Marc Weihrauch

Hello, where did I have my mind? Bob, you're right of course. I must have used wrong coordinates when I calculated that one.

Sorry for the false claim.

But now I'm even more afraid the town will be too crowded for my taste. Cheers Marc

From: Govert Schilling

The mountaintop where the Turkish National Observatory is being build, is indeed Bakirlitepe, but it turns out to be pretty much \*west\* (and a little bit south) of Antalya, but still in the outer parts of the zone of totality. See <http://www.tug.t>

From: Bob Morris

The big question remains: according to the iso-sunshine lines on the map I referenced, Antalya for some reason has nearly 10 hours of sunshine a day.

So does the late March cloudiness affect Antalya or what?

Surely we shouldn't have to wait for 2004 to find out? :-) Bob Morris

From: Klipsi



(Continued on page 72)

- > The only choices from my point of view are:  
 > 1) The Egyptian border east of Libya.  
 > 2) A cheap cruise ship out of Crete.  
 > 3) Anatalya, Turkey

how about these :

- spectacular sunrise total eclipse from eastern tip of Brazil !
- greatest eclipse in southern Lybia
- sunset totality on Sibirian / Mongolian border

Klipsi

From:Peter Tiedt

Klipsi there are a number of other choices ...

Tibesti mountains (if they are accessible / allowed) will be #1 Watching from the top of awesome dunes in S Lybia. Totality by camel in Niger (imagine a pic of totality, with a camel's hump in the frame ; -)

There are also a number of options in Togo and Benin, which are beautiful countries. Nigeria may also have some interesting options.

From:GJMadden

I think SE Lybia is a very good destination. Of course there are serious political issues to deal with.

However, I'm wondering if Kaddafi might not see an opportunity to bring in some big dollars here and extend welcomes to foreign visitors for this event? Am I dreaming?

It's sometime off, and anything can happen between now and then, but this will be my first choice if it becomes a possibility.  
 George Madden

From:Stig Linander

Then you'll need a fisheye lens as the Sun will be almost in Zenith ... ;-) Stig.



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From:Hal Couzens

What are the main differences between eclipses with the sun towards its zenith and at sunset?

I am particularly interested in the effect the sun position has on the 360degree sunset 'extravaganza'.

The various good shots from Australia of 4 Dec show some of the effect at the Sun's position but not what is happening to the horizon behind you (yeah I know that is not the direction to be focussing one's attention on). Hal Couzens

From:Peter Tiedt

I may be way off beam, but I should imagine that the "360 deg sunset colours effect" is largely dependent on the dimensions and orientation of the shadow footprint.

In effect the "sunset colours" are at the edge of the umbra, and you are in fact looking towards the areas of partiality.

Therefore, near the path limits, when the umbra is highly elongated, I would expect this effect to be more colourful perpendicular to the major axis of the umbral shadow.

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Conversely, away from the path limits, where the umbra is almost circular, the effect should be more uniform.

My 2c worth :-)) Let's hear it from the real experts ..... Peter

From:Richard Monk

Yes I agree - lots of choices along the path of totality. West Africa sounds great but tends to be very cloudy until you get far inland. Nigeria especially was hot, humid and cloudy the last time I lived out there. My maps show that the central path hits the Mediterranean on the Egypt/Lybia border, so there is a chance for a North African site for those put off by the Lybia regime. Springtime in Antalya sounds delightful though. Maps of North African and Turkish paths are posted on the pushpins page on my web site. Richard

From:Govert Schilling

I guess you're right. At sunrise or sunset, the moon's shadow on the Earth's surface is a very elongated ellipse, so if there are any colors visible at all, it will only be 'sideways', i.e. perpendicular to the direction of the sun. However, I don't think the colors will be as vivid as they are when the sun is at a higher altitude.

I saw the TSE of 22 July 1990 from a small island just south of Helsinki, Finland. Totality occurred during sunrise. The sky was clear, but the sun was invisible because of a thick band of clouds on the eastern horizon, so I paid more attention to the shadow, which should approach from the right (when facing the sun). What I saw was extremely impressive: the moon's shadow 'cilinder' showed a remarkable perspective effect, and the approaching shadow looked like a wedge-shaped wall of darkness, with its vertex at the position of the moon. Difficult to describe, but it appeared as if the shadow had some sort of 'pivotal point' at the moon's position in the east, and just rotated across the observers. With hindsight, it's easy to explain, but it made a huge impression on me. --Govert

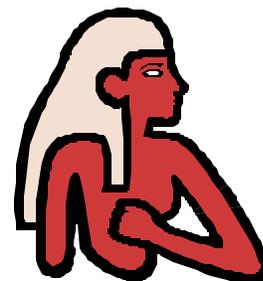
From: Gerard M Foley

Here are two horizon shots from the Indian Ocean near Mozambique:

<http://foley.ultinet.net/~gerry/africar/africa22.html>  
<http://foley.ultinet.net/~gerry/africar/africa23.html> Gerry

From:Richard Monk

Oops - I forgot to append my web site address. <http://homepage.ntlworld.com/rimonk/index.htm> Richard



From:Gerard M Foley

I write: On 4 December, 2002, when the eclipse shadow approached "Olympic Countess", with sun and moon above heavy cloud, two moderately large birds flew out of the west, spent a few moments flying in front of the nearly stationary ship, and then flew on eastward, in an apparent attempt to avoid being overwhelmed by the wall of darkness. Gerry

From:Mike Murphy

Geoff, here's the current UK travel advice from the FCO's web site: Regards - Mike

----- Beginning of paste from FCO site -----  
 Still Current at: 14 January 2003 Updated: 27 November 2002 Libya

SUMMARY

Most visits to Libya are trouble-free. Following recent developments, including the terrorist bombing of a night club in Bali on 12 October, UK nationals world-wide should be aware of indiscriminate attacks on civilian targets in public places, including tourist sites.



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**SAFETY AND SECURITY**

Safety and security is generally good but the conflict between Israelis and Palestinians is having an effect on the whole region. There is a risk of public disturbances throughout the area, in response to events in the Occupied Territories. Travellers need to be aware of this risk and alert to news reports, which might trigger disturbances.

There have been cases of foreigners being targeted for robbery at home, on remote beaches and in desert regions. Travel to such areas should be undertaken in groups. There have also been a number of car-jackings at gunpoint in Tripoli and elsewhere.

**TERRORISM**

We are not aware of any specific threat to British nationals in Libya. Visitors should be careful, however, to avoid situations where there might be tension. Any demonstrations and public events should be avoided.

Increased security at airports means travellers should allow extra time for checking in. Travellers are advised to contact their airline for the latest information.

**LOCAL TRAVEL**

UN Security Council sanctions, in force from April 1992 until April 1999, included a ban on the supply of aircraft and components, engineering and maintenance services for Libyan aircraft and other related services by foreign companies. The results of this ban may still affect the safety and reliability of internal flights.

**ROAD SAFETY**

The standard of driving in Libya is poor. Care should be taken when driving anywhere in Libya. Driving defensively is advised. Always wear a seat belt.

**LOCAL LAWS AND CUSTOMS**

Stern penalties are imposed for the possession or use of alcohol and harsh penalties for criticising the country, its leadership or religion. Visitors should on no account attempt to bring alcohol into the country.

Libya is a Muslim country and visitors should dress accordingly, covering arms, shoulders and legs. Avoid shorts, tight fitting or revealing clothes in public.

Visitors are advised not to use cameras close to military or official sites.

Libya is a cash society. Hard currency – US dollars is the currency of choice – should be declared on arrival at the airport. Only airlines accept credit cards.

**ENTRY REQUIREMENTS**

British nationals should obtain a visa before travelling to Libya. For further information on entry requirements, visitors are advised to check with the Libyan People's Bureau in London at 61/2 Ennismore Gardens, London, SW7 1NH, Tel; 020 7589 6109, fax; 7589 6087.

**HEALTH**

Health care may not always be of the same standard as that available in the UK. You are advised to check with your GP for advice on vaccinations.

**GENERAL**

Visitors are advised to carry some form of identification with them at all times. All visitors should take out adequate comprehensive

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insurance including full cover for medical treatment and accidents.

All British nationals should register with the British Embassy in Tripoli.

----- End of paste from FCO site -----

From: Richard D. Lavoie



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The Canadian Gvt travel advice is similar, adding that Libyan regulation imposes to use local tour operators for traveling in the country. I know a few people who traveled to Libya and never encountered any problem. I also heard that traveling to the SE desert, where totality is maximum, can be done either by camel or truck and is a very interesting experience, although some areas are to be avoided because of the presence of anti-personnel land mines. Also, remember that Libya offers a variety of archeological sites, especially very well preserved Roman sites, and that it is easy to combine a visit to Libya with one in Egypt.

As for consular services, Canada and UK have embassies in Tripoli. So, Libya will probably be my destination in 2006. For US citizens who experience travel restrictions but would want to witness the TSE 2006 from Libya, they can use the same trick as a lot of other American citizens who already travel to Cuba, Libya or other forbidden countries: they fly from Canada, Mexico or Europe and have a visa stamped on a flyer that is annexed to their passport, which they remove before going back to the land of the free. And voilà! No problem with the US Immigration Services. Naturally, Libya can refuse entrance, and I don't think the USA offer consular services in Tripoli. Richard D. Lavoie

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Assoc Prof J R Huddle

Concerning Antalya, Turkey, Bob Morris wrote, "And the sunshine line of 3000 hours per year (nearly 10 hours per day) seems to indicate that the bay region has very good luck with sunshine!"

First of all, 3000 hours of sunlight per year averages out to  $3000/365 = 8.2$  hours of sunlight per day, which I would consider significantly less than ten hours per day.

Another way of looking at things is to estimate that one year has  $365 \times 12 = 4380$  hours of "daytime", at least nominally, so that  $(3000 \text{ hours of sun}) / (4380 \text{ hours of daylight})$  suggests a probability of clear skies of something like 68 percent.

A criterion I use is that if the probability of clear skies is not greater than  $2/3$ , I really want to look for a better place. According to my admittedly rough calculations, Antalya satisfies my "66 percent or better" rule, though not by much.

Still, the alternatives are Libya, Chad, and Egypt. Colonel Khadaffi is still a bit upset with the USA over that bombing we did in retaliation for Lockerbie, and Chad is a bit upset with the USA over... well, I don't know, exactly, and the reason doesn't matter anyway. Americans are strongly advised to stay out of those countries.

(The advice I have heard given to dual nationals is to take one passport or the other, but not both. Or at least hide your U.S. passport very carefully: The only thing worse than being American in such countries is being caught trying to hide the fact that you are American.)

For Americans, then, that only leaves that tiny little northwestern corner of Egypt - is that little town there called "As Salium"? There is little to no tourist infrastructure in that area. There IS a hotel in that area of Egypt, but I don't know anything about it. As Salium is about 500 km (driving) from Alexandria, and the road is not an Autobahn, so you probably don't want to base in Alex, drive to As Salium for eclipse day, then drive back to Alex after the eclipse is over. Oh, you could do it, but the whole point is to have fun.

I think we need more intel about As Salium, but I will probably end up in Antalya or Cappadocia on eclipse day, leading an excursion through Turkey with Innovations In Travel. We did a similar trip in 1999, observing the eclipse in Elazig. Turkey has some really cool stuff to see, though the reality of Troy was less than what my mind had fantasized. There's a lot of "cradle of civilization" stuff, if that's your bag - and mine is! Whether you like that stuff or not, be sure to hit the Museum of Anatolian Civilizations in Ankara. The food in Turkey is good, but you will probably get tired of "lamb," which is often "mutton." The Ephesus Beer is great! Just don't expect to find a decent Margarita.

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If you'd like to keep informed of Innovations In Travel's plans for the 2006 eclipse, please send an e-mail to [Renate@innovationsintravel.com](mailto:Renate@innovationsintravel.com), and mention you saw this on the SEML. Best Regards, Jim Huddle

From: Jay.M.Pasachoff@williams .edu

I think the problem is not whether you can sneak into a country or whether people you know or know of have navigated it safely. The question is what happens if you have a traffic accident or an altercation or are framed for some situation--can you be defended or helped. It just isn't worth the chance of getting life imprisonment or worse to go to a country where you can't be helped. Jay Pasachoff

From: Kidinvs@aol.com

There is one other aspect that I think need be considered in choosing an appropriate venue for 2006, given the choices...

As I plan on escorting a group of about 50 people (average size for me), I will probably be spending in excess of \$100,000 on food, lodging, and transport internally. Given the choice of countries, and what they offer, it seems to me that there is no question as to where my group will be, provided weather prospects, and politics remain little changed...please choose to join my group in Turkey...with all the trimmings!!!! There is no reason that I would choose to deliberately spend that much money in those other countries. The Turks, at the very least, deserve it. Rick Brown

From: Richard D. Lavoie

You are right. Americans could have consular services in Libya through an allied country embassy, but as it is illegal to travel to Libya for Americans, they would have problem with their own government... And there is always the risk of the Libyan authorities wanting to make an example of a benign incident involving an American...

From: Fabio Pettinati

It always helps if you know someone in the country (Iran'99: my next door neighbor's sister and family took care of me; Es-fahan was a great experience) or speak the language (Angola'01: I speak Portuguese from Brazil so communication was the easy part--witnessing tremendous poverty was very difficult). Libya sounds attractive, and I might have enough money saved until then to consider going there. Of course, the impending war (edition 2003) in Iraq will not make things easy for US residents. Fabio San Jose, CA

From: GJMadden

I suggest that things may change in the next three years such that reliable predictions regarding governments, politics and laws , particularly in North Africa, are very likely to change significantly.

I do think that Libya will welcome hard currency (read American dollars) given the chance and a legitimate reason such as an historical event such as an TSE.

Politics, especially the international variety, is insane. Nothing is predictable. George Madden

From: Richard Monk

I have added some more maps of the 2006 TSE captured from Encarta Atlas. You can find them in the "pushpins" link on my web page. Richard

From: Mike Simmons

I'm writing from Iran, having just arrived from Iraq which is covered by very similar regulations. There are many Americans traveling in Iraq despite this and there are ways around those regulations for those that wish to go to the trouble. The regulation you quote below presents very little problem as it is possible to travel there without using your US passport. In the case of Iraq there are other more problematic issues involving sanctions against any financial interactions with any business in Iraq, even travel related (my travel was provided so I didn't spend my own money). I don't know the issues with Libya and there might be real concerns there

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but I can say that of the thousands of Americans that have visited Iraq while these regulations have been in effect only three have been prosecuted. Those three were members of a group that were vociferous and aggressive in their opposition to the sanctions and essentially dared the government to do something about their travel to Iraq, which they did. Otherwise, the government regulations are meant to keep businesses from doing business with Iraq, not for those visiting as tourists for a few days. Even if there is a technical violation of a law we're just not worth the trouble and expense since we're not engaged in any actions that the regulations are designed to stop. While Libya may not be the vacation choice of American eclipse chasers I'm sure it is possible to travel there. I would not hesitate to do so but I would encourage anyone considering it to talk with others that have appropriate experience and knowledge to advise you on how to keep from running afoul of the law.

Of course, this mailing list is international and this discussion applies to US citizens only. Mike Simmons

From: Mike Simmons

I think whether or not take your US passport is irrelevant if you're not using it to travel there, i.e., getting a visa stamped in it. There is a thin line here and some would consider it a technicality but I won't go into the details here (write to me off the list if you're interested). If you have a passport from another country then that issue is non-existent if that country doesn't have similar laws. However, if there are economic sanctions that prohibit US citizens from spending money in the country then that is a more serious problem that you need to carefully investigate before going. Regardless of how you get into the country those regulations will still apply to you and you could be subject to prosecution upon your return. In practice this never happens except in special circumstances created by the traveler. There are simple ways around these regulations but since they just don't go after individuals for violating the sanctions it hasn't been determined if these methods are sufficient. If you're considering it then I could talk to you off the list about what I know of traveling to Iraq but Libya may be entirely different. Mike Simmons

From: Mike Simmons

I'm quite sure this is true as well as the political advantage of showing Americans and other westerners a good time in his country. My travels in other "hostile" countries has shown that while they may despise the government of my country they feel Americans are "very good people". Those were the words spoken to me just yesterday by rural people in northeastern Iraq, a country devastated by the US-led UN economic sanctions. I'm now in Iran -- another "Axis of Evil country" -- on my third visit here and the people are more pro-American than one could imagine despite the official demonstrations against the Great Satan. Check with others with experience in Libya and the legal considerations but my experience leads me to be optimistic that they will be very warm and welcoming towards you, more so than in most US locations.

>It's sometime off, and anything can happen between now and then, but this will be my first choice if it becomes a possibility.

That being the case, and if you are ready for more adventurous travel than most others, I would look into it from sources other than the US State Department. Mike Simmons

From: Mike Simmons

This gets around the problem of using a US passport for traveling to the country but if there are economic sanctions against spending money in Libya then there are other steps to be taken, such as booking a trip through an agent and paying for it outside of the country through another agent. This doesn't necessarily eliminate any risk of being prosecuted since you're still in technical violation but it does remove any evidence that you have spent money in the country. There is still a very small risk but in practice the US government doesn't go after individuals since the economic sanctions are meant to stop businesses that could help the economy of the targeted country. But YMMV and in this case the consequences are important to understand through adequate research and advice ahead of time.

Because travel to Libya is limited by US law and because (I think) there are no diplomatic relations between the US and Libya there is not likely to be any US consular office available there. In some countries that do not have diplomatic relations with the US but where travel is not prohibited there are some limited services available at the embassy of a friendly country but those services are limited and one should not consider going there if you feel the need to have the protection of a US embassy during your travel. Mike Simmons

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From: Mike Simmons

I must very strongly disagree with the advice given above and I would suggest that it may not be based on any objective evidence. I just left Iraq yesterday -- a country that was bombed by the US quite a bit more than Libya, has been devastated much worse than that by the US-led UN economic sanctions and is now facing an even greater threat of attack by the US. Never once did I encounter any sentiment against American citizens. I was warmly welcomed by everyone I met. Unlike US citizens, citizens of other countries usually make a distinction between the policies of a government and the citizens of the country. Even with chance encounters in rural areas without any possibility of government-orchestrated interactions between us the people were delighted to meet an American and quick to say how much they liked us, saying -- despite all they've gone through at our hands -- that Americans are good people. That they would say something different if asked about our leaders is certain but that's different, at least in their view. Remember that people living under totalitarian regimes don't really think about a country's citizens being responsible for their governments' actions.

I am now in Iran on my third visit, and with much greater experience here I can say that the people here are extraordinarily pro--American regarding the people and culture. They don't like US policies towards them nor our leaders but Americans are honored and welcomed guests.

I travel to "such countries" and proudly answer the inevitable "where are you from" without hiding the fact that I'm an American. This usually leads to very rewarding interactions with the local people who often have never before met a US citizen and are anxious for dialogue, including the truth about the US and our impressions of their country. I don't know anything about Libya but I would advise those that are interested in traveling to Libya to seek factual information from those with direct knowledge of the reality of travel there before deciding. To those who dismiss traveling to Libya out of hand as dangerous I would strongly suggest picking another location as there are many wonderful places to visit. Mike Simmons

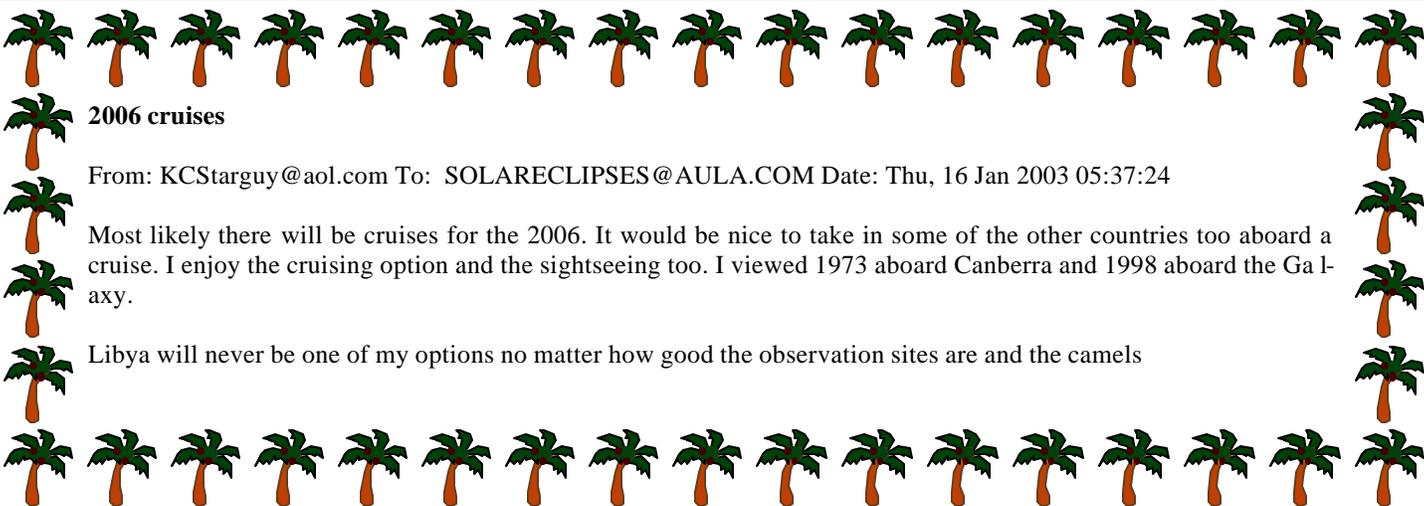
From: Mike Simmons

I have to agree with Jay that these are real concerns. Some take the chance and others don't. With Jay traveling with a large group and with the requirements of his travel these countries would be a poor choice, IMHO. Not that there is as much danger as Jay might suggest -- which I fear is not based on any objective evidence regarding what actually occurs in such countries -- but the requirements of travel vary from person to person. For some, the very small additional risks involved (if indeed there are any) are quite acceptable, for others they are not. Mike Simmons

From: Mike Simmons

On what do you base the existence of this risk? I know of no such action of the government in other "hostile" countries. What makes Libya different?

There are real concerns about traveling in some countries but the discussion should be based on evidence rather than speculation. Mike Simmons





Joanne & Patrick

*The sole Newsletter dedicated  
to Solar Eclipses*



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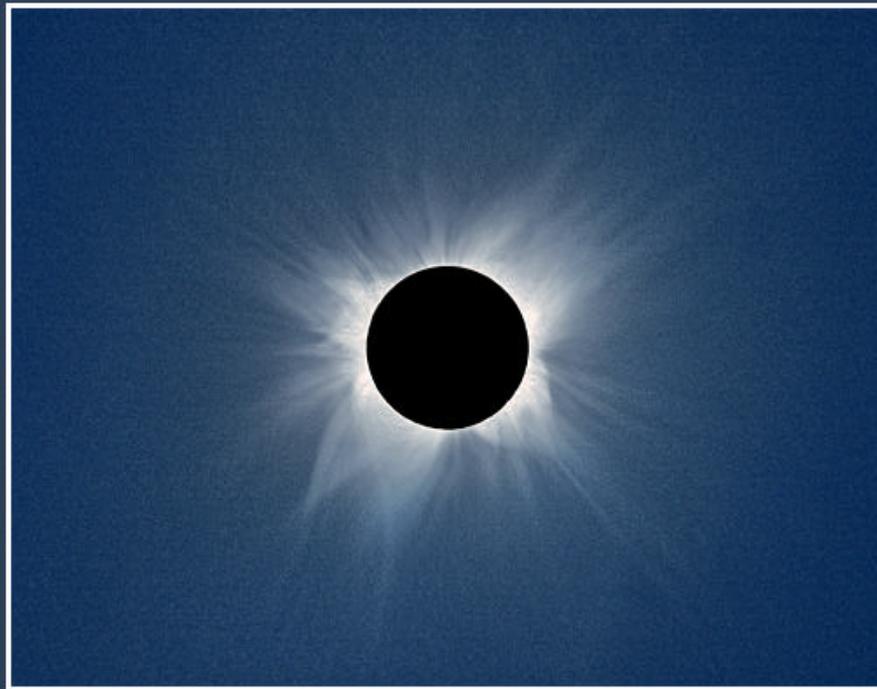


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