Volume 5, Issue 11
SOLAR ECLIPSE NEWSLETTER

November 2000

SOLAR ECLIPSE NEWSLETTER

HEADLINES

- GENERAL TOPICS DISCUSSED ON THE MAILING LIST THIS MONTH
- SOLAR ECLIPSE CONFERENCE
- AFRICA 2001
- SOLAR ECLIPSE MAILING LIST UPDATE
- ECLIPSE WORDSEARCH

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Solar Eclipse Mailing List

WELCOME TO THE NEW-LOOK NEWSLETTER

Dear All

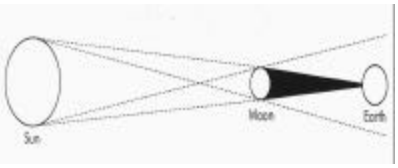
Firstly, we must apologize for the apparent lapse in the last editions of the Solar Eclipse Newsletter, we hope you understand that huge personal changes, such as Patrick's move to England and change in job, coupled with organizing the conference took up every spare minute and meant that newsletter was put on a back burner.

That brings me to the second point, is that now we are back, we can start with a clean sheet and what's more a new look.

We hope that you find this new format user friendly and would welcome any advise or suggestions. We are hoping to include any pictures and data with the owners permission of course. This all means that faces can finally be put to names, data can also be displayed effectively, and latest eclipse pictures viewed by all.

In this month's issue you will find the reports and first reactions to the first Solar Eclipse Conference, also lots of new information on Africa 2001, if you also have a spare few minutes you could have a go at the word search. We welcome all contributions. There will also be a monthly book review, so come on all you readers with the amazing number of eclipse books released last year, spread the word of the best reads.

Patrick & Joanne



The Solar Eclipse Mailing List

The Solar Eclipse Mailing List (SEML) is an electronic newsgroup dedicated to Solar Eclipses. Published by eclipse chaser Patrick Poitevin (patrick_poitevin@hotmail.com), it is a forum for discussing anything and everything about eclipses.

Thanks to the voluntary efforts of Jan Van Gestel of Geel, Belgium, the Solar Eclipse Mailing List (listserver) has been in operation since 10 December 1997. This is the first mailing list devoted solely to topic of solar eclipses on the internet.

You can send an e-mail message to the list server solareclipses@Aula.com, which will then forward your e-mail to all the subscribers on the list. Likewise, you'll receive e-mail messages that other subscribers send to the listserver. Only subscribers can send messages.
Continued on back page.

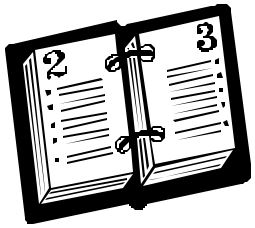
SUBSCRIBING TO THE SOLAR ECLIPSE MAILING LIST

THE SOLAR ECLIPSE MAILING LIST IS MAINTAINED BY THE LIST OWNER PATRICK POITEVIN AND WITH THE SUPPORT OF JAN VAN GESTEL

HOW TO SUBSCRIBE:

IN THE BODY OF THE MESSAGE TO listserv@Aula.com SUBSCRIBE SOLARECLIPSES name, country.

ECLIPSE CALENDAR



Hi,

The Solar Eclipse Conference 14 -15 October 2000, Antwerp is history. Time to publish again the Solar Eclipse Calendar.

If you need the references, have remarks or want to add to the next edition, please send me a message.

November 01, 1858 Birth of Gustav von Struve, Russian astronomer. Contributed in statistical astronomy and sun. Same family name of other family members. Died in 1920. (Ref. DD11/99)

November 01, 1905 Menzel 1967 (A905 VC): Minor planet discovered November 01, 1905 by Max Wolf at Heidelberg. Named in honor of Donald Howard Menzel (1901-1976), Harvard astronomer since 1932 and director of the Harvard College Observatory from 1954 to 1966. He observed 15 solar eclipses, both a theoretical and observational pioneering solar and stellar astrophysicist, (Ref. VK06/97)

November 01, 1948 The Eclipse Comet only 2 degrees from the Sun and observed during totality in Nairobi, Kenya. Photographed by R. d' E. Atkinson. After, the comet was observed till April 3, 1949 in the southern hemisphere.

November 01, 1982 Death of Dutch astronomer Jakob Houtgast (1908-1982). Houtgast worked on the Observatory of Utrecht, Netherlands and was specialist in the Sun and joined a lot of Solar Eclipse expeditions. (Ref. Heelal 12/82)

November 01, 1994 Launch of Wind (US). Research of Solarwind, together with Polar and Fast. (ref. DD 10/98)

November 01, 2282 Three eclipses in one month. 2282 Nov 01 Partial Solar Eclipse, 2282 Nov 16 Total Lunar Eclipse, 2282 Nov 30 Partial Solar Eclipse. (Ref. SEML 06/00)

November 03, 1994 Total solar eclipse observed with success by most observers in Chili and Bolivia.

November 03, 2013 Annular-total solar eclipse which will be annular in the beginning and total for the rest of the path. Between 1898 and 2510, there are only a few cases: 3 November 2013, 17 October 2172 and 29 April 2386. Ref. Canon of Solar Eclipses, 1898-2510 by Meeus, Grosjean and Vanderleen (p. 76).

November 04, 1920 Gustav von Struve, Russian astronomer died. Contributed in statistical astronomy and sun. Same family name of other family members. Born in 1858.

November 07, 1631 Pierre Gassendi, Wilhelm Schickard, Johannes Hevelius and Johannes Kepler observed for the first time a Transit of Mercury. The two late also predicted the event. Martin van den Hove wrote a book about it. (Ref. DD11/99)

November 07, 1953 Cogshall 1764 (1953 VM1): Minor planet discovered November 07, 1953 at the Goethe Link Obs at Brooklyn. Named in honour of W.A. Cogshall, Prof. of astronomy at Indiana University (1900-44). He was known for his work on visual binary stars, photography of Solar Eclipse, and as a teacher of many who followed professional careers in astronomy. Proposed by Frank K. Edmondson. (Ref. VK06/97)

November 08, 1656 Edmond Halley (1656-1742 or 1743) born on November 08, 1656. Famous for his comet but also for his first observations on Baily's beads. The Royal Society also mentioned 29 October 1656. (Ref. Rc1999)

November 09, 1853 Carrington Rotation number 1 starts and initiated by R.C. Carrington.

November 12, 1547 Extremely wide path of the annular eclipse of 12 November 1547. The path is 1400 kilometres wide. The northern limit is only a small circle between Norway and Iceland. The paths covers nearly whole Great Britain. (Ref. St L 06/99)

(Continued on page 3)

ECLIPSE CALENDAR

November 12, 1891 Birth of Seth B. Nicholson, American Astronomer. His main task was observing the sun. He published yearly, and for decades, reports about sunspots and magnetic fields. He died in 1963. (Ref. DD11/99)

November 12, 1966 On November 12 th 1966 total solar eclipse, Gemini 12 astronauts Lovell and Aldrin saw the eclipse from orbit and they saw the moon shadow on earth surface. For them totality lasted only 6 sec. Lift-off of Titan booster have been synchronised in order to intercept that total eclipse that was visible from south America. (Ref. PA07/98)

November 12, 1985 Total solar eclipse on the Antarctic and of which the northern limit was more to the south then the southern limit of the eclipse.

November 14, 1659 In Chapter VII of "A Handbook of Solar Eclipses" by Isabel M. Lewis which was written in advance of the 1925 eclipse over NE USA, Lewis identifies the eclipses of November 14, 1659, August 22, 1672, July 12, 1684 (AT), and January 19, 1768 (AT) as having occurred in the years that elapsed since the Pilgrim fathers landed in New England. (Ref. ENB01)

November 22, 1972 Launch of ESRO 4 (ESA), studied atmosphere and solarwind. (Ref. DD11/99)

November 22, 1984 Total solar eclipse in a part of New Guinea and only 18 lunations (1 ½ year) after the total solar eclipse of 11 June 1983 which was also visible from that part. One Saros later on 21 June 2001 and 4 December 2002 a small part of Angola will witness a total solar eclipse. (Ref. JM09/99)

November 24, 1989 Solar Maximum Mission (SMM - US) stopped. Performed 9 years observations of the sun. (ref. DD11/99)

November 25, 1995 The first DDD (De Duistere Dag or The Dark Day), organized by the Solar Eclipse Section (Patrick Poitevin), VVS Belgium in Volkssterrenwacht Mira in Grimbergen, Belgium. Speakers where Jean Meeus (triangles and eclipses), Felix Verbelen and Anton Vollemaere (Codex: Eclipses and Maya's) and Patrick Poitevin (Eclipse November 03, 1995).

November 28, 1883 Carolina 235: Minor planet discovered 1883 November 28 by Johann Palisa at Vienna. Named for an atoll of the Line Islands, 450 miles northwest of Papeete, Tahiti, where the discoverer observed the Total Solar Eclipse of May 6, 1883. Palisa observed the solar neighbourhood in order to find an intra-Mercurian planet. BAJ CIR 218. (Ref. VK06/97)

November, 1996 First issue of the Eclips Nieuwsbrief (Eclipse Newsletter). Monthly magazine of the Solar Eclipse Section, VVS Belgium. Editor and founder Patrick Poitevin.

GENERAL TOPICS

5000 YEAR LISTS OF SOLAR ECLIPSES

From: John Tilley <john@tilley.demon.co.uk> To: <SOLARECLIPSES@AULA.COM> Sent: Wednesday, October 04, 2000 5:53 PM Subject: [SE] 5000 year Lists of Solar Eclipses

I was trying to combine data from two lists of Solar Eclipses - one produced by Fred Espenak (NASA - A 5000 year list of Solar Eclipses) and the other by Takesako Shinobu (EMAPWIN - Besselian data files - 6000 years) - and to my surprise found a number of differences.

Fred has six partial eclipses that are not eclipses in Takesako's list and vice versa. As a result the total number of solar eclipses for the period 2000BC to 3000AD should be the same in both lists - ie 11897 - however Takesako managed to lose the final eclipse (9 Oct 3000).

I can think of three reasons for the twelve partial eclipses being different:
- Different ephemeris used
- Allowance made/not made for centre of mass of moon and centre of figure of lunar disk not being coincident
- Different algorithms for the calculation

I think they are due to the fact that Fred used Newcomb [1895] for his Solar Ephemeris and Brown[1919] for his Lunar Ephemeris with the 1954 improvements.

However Takesako-san used the JPL DE406 ephemeris - the latter is of course more accurate. As a result some of Fred's eclipses are not eclipses in Takesako's list and vice versa. All such eclipses are of course partial eclipses of very small magnitude at the start/end of a Saros. (In his Fifty Year Canon - Fred compares the accuracy of his ephemeris with JPL DE200)

There are also a large number of eclipses in the two lists where the date differs by one day - I haven't yet worked out why. (I know that Fred dates the eclipse as the day when greatest eclipse occurs - I don't know how Takesako-san dates his eclipses)

Espenak eclipses that aren't eclipses according to Takesako
-1295 8 25
-742 11 28
-727 2 20
-716 7 15
-702 10 8
1107 7 21
(all have positive gamma)

Takesako eclipses that aren't in Espenak list
-1979 5 2
-1719 10 31
-1686 7 30
-1140 3 28
-1028 3 19
2883 8 23
(all have negative gamma - except the eclipse of -1719)

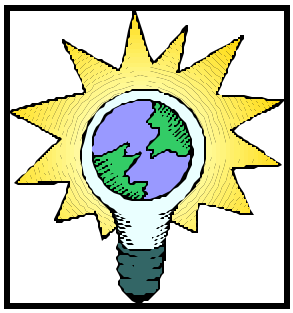
It would be good to have a definitive Espenak list produced using the JPL ephemeris which covers 3000BC to 3000AD - with centre of lunar mass correction applied <hint Best Wishes - John (John Tilley)

From: Jean Meeus <JMeeus@compuserve.com> John Tilley mentions the long lists of solar eclipses by Espenak and Takesako, and found six Espenak eclipses missing in Takesako, and six Takesako eclipses missing in Espenak.

I have none of those two lists, as I have calculated my own list of solar eclipses, from -2000 to the year +3400. My calculations are based on the following sources :
--- for the Sun, the modern VSOP87 planetary theory by Bretagnon (Bureau des Longitudes, Paris);
--- for the Moon, the modern ELP lunar theory by Chapront (Bureau des Longitudes), but with improved mean elements for the Moon's orbit as given by Chapront in January 1998.
However, I applied a correction of -0.6 arcsecond to the Moon's latitude in order to take into account the fact that the center of figure of the lunar disk does not exactly coincide with the Moon's center of mass.

Actually, for the Moon I neglected all *very* small periodic terms, retaining (for the three coordinates) a total of "only" approximately 5000 periodic terms, instead of Chapront's approximately 37000. However, this can hardly affect the results.

(Continued on page 5)



Trying to combine data produced by Fred Espenak and Takesako Shinobu surprisingly produced differences.

GENERAL TOPICS

5000 YEAR LISTS OF SOLAR ECLIPSES– continued

I found that, indeed, the six Espenak "eclipses" missing in the list by Takesako do NOT exist. Sorry, Fred...! On the other hand, the six Takesako eclipses missing in Espenak's list DO exist. For these very small six eclipses I find the following values for greatest magnitude :

-1979 May 2 0.010
-1719 Nov 1 0.008
-1686 Jul 31 0.006
-1140 Mar 28 0.009
-1028 Mar 19 0.005
+2883 Aug 23 0.001

Note that these dates are in the time scale of Dynamic Time, not Universal Time, which may explain the difference of one day for two cases (-1719 Oct 31 and -1686 Jul 30 according to Takesako). Jean Meeus

AMATEUR FILTERS

From: <Stephen McCann> To: <SOLARECLIPSES@aula.com>

Having seen that the sun's corona can be observed by spacecraft (LASCO instrument aboard SOHO), using a Fe XIV, 530.3 nm centred filter, I wonder if such a filter is available for us amateurs to observe the sun, in a similar way to how we already use H alpha filters. Cheers Stephen McCann, Southampton, England

From: <jmp@williams.edu> DayStar Filter Corp, which makes most of the H-alpha narrow-band filters, can also make a Fe XIV filter, but without an eclipse it can only be used with a coronagraph on a high mountain. Otherwise, the sky is too bright to see the corona.

LASCO on the SOHO spacecraft has two working coronagraphs on board, and the filter is used with the coronagraphs. But coronagraphs at sea level aren't good enough to see the corona, even with a 530.3 nm filter. Jay Pasachoff

From: Stephen McCann <stephen.mccann@roke.co.uk>
In addition, has anyone attempted to use a Liquid Crystal Display as an electronic occulting shield within a telescope system, which would have the advantage of variable diameter control. Cheers Stephen McCann Southampton England

From: Madden <iluvelx@netacc.net>
I worked for a company that used an LCD as an occulting schield to prevent backlighting in a portable photometer used by the US Postal Service for measuring barcodes. Worked very well. Of course the illumination source was not very bright. madden/rochester

Coronagraphs at sea level aren't good enough to see the corona, even with a 530.3 nm filter.

FREE GLASSES

From: Bob Morris <morris@sce.carleton.ca> To: SE from LRM <solareclipses@Aula.com> Sent: Wednesday, October 04, 2000 9:47 PM Subject: [SE] Free Eclipse glasses!!!!

The November issue of Astronomy (US) covers the December 25 partial eclipse.

They state that in the December issue, available in Canada and the US in early November, free eclipse glasses will be attached. Bob Morris

FILM : STATE OF DOGS

From: Michael Gill <eclipsechaser@yahoo.com> To: <SOLARECLIPSES@AULA.COM> Sent: Monday, October 16, 2000 5:09 PM Subject: [SE] 'State of Dogs' Availability
Hopefully, the following will be of use...
I was asked at Antwerp where I managed to get my copy of 'State of Dogs'.
This movie was brought to my attention by Jean Marc Larivière's message to the SEML in 1998...
http://www.mreclipse.com/SENL/SENL9810/SENL810u.htm
Copies in the VHS/PAL format (with English subtitles) can be obtained from d.net.sales in Leipzig...
http://www.d-net-sales.com/einleit.htm
For further information email info@d-net-sales.com, Michael Gill.

GENERAL TOPICS

ECLIPSE PROGRAMMES YOU CAN ATTEND

From: Dave Balch <daveb@afew.com> To: Solar Eclipse Listserve <SOLARECLIPSES@AULA.COM> Sent: Tuesday, October 17, 2000 9:56 PM Subject: [SE] Eclipse programs you can attend

I would like to invite all members of this listserve to either (or both!) of two programs I am giving for astronomy groups in Southern California. The dates, times, and locations are listed below, followed by a description of the program. Note that I am developing a version of this program for corporate and association events which will spread the word about eclipses in general and which will encourage others to follow their passions in life, just as we are ("we" being those of us on this list). I believe that those who participate in their passions have less stress and less "burn-out". What do you all think?

If you can make it, please respond to me directly at daveb@afew.com and, at the event, be sure to introduce yourself to me as a member of this list!

Date: Friday, October 20 Group: San Diego Astronomy Association Place: Rueben H. Fleet Science Center, San Diego Time: 7:00 pm
Date: Friday, November 17 Group: Ventura County Astronomical Society Place: Moorpark College Forum, Moorpark Time: 7:30

Have you ever "experienced" a total eclipse of the sun? (We say "experience" rather than "see" because it is much more than merely something in the sky to look at; your physical world changes during an eclipse in ways that might surprise you.) Whether you have or have not, you will enjoy this fascinating look at nature's greatest spectacle.

Dave's undying passion for solar eclipses explodes in vivid sounds and images that will captivate and enthrall you; you will leave the program anxious to see one for yourself. The first question is invariably "When is the next one?"

The focus of "WOW!" is not the science of an eclipse, but rather the human element; what it feels like when you are privileged enough to be there. Dave draws on his eclipse experiences to describe how it feels to watch daylight take on an unearthly quality; how it feels to watch nature block out the sun, on which we rely for our very existence; how it feels to stand in the shadow of the moon.

Next: eclipse day! Dave takes you through the sequence of events leading up to the eclipse itself; the emotion, the excitement, and the anxiety.. The discussion then turns to what it takes to experience this grand event. The planning involved, the tradeoffs that must be made, and the things you must consider.

You will then experience two eclipses! First is the 1999 eclipse in Romania captured on video, followed by the reactions of many of those who were there. Next is the 1980 eclipse in Kenya consisting of slides and audio of the excited crowd, all of which is set to music; members of a recent audience were so moved by this presentation they actually cheered out loud!

Come to this program and be educated, fascinated, tantalized, and mesmerized!

Dave Balch is the author of "Big Bucks in a Bathrobe: How I Grossed $5.1 Million From a Home-Based Business, and How You Can Too!" Read a free chapter at http://www.BigBucksinaBathrobe.com As a professional speaker, he offers the following programs:
Home-based Business: "Big Bucks in a Bathrobe"
Productivity: "Get More Done, Have More Fun"
Decision Making: "How to Be Wrong 50% of the Time"
Thinking Techniques: "Train Your Brain for Greatest Gain"
Solar Eclipses: "WOW! The Most Incredible Thing You'll Ever See!"
He is also the author of "BeBetter!", an album of audio tape programs. Check it out at http://www.afew.com/bebetter P.O. Box 824, Twin Peaks, CA 92391, 1-800-366-2347, 1-909-337-4945 (FAX)

"Come to this program and be educated, fascinated, tantalized, and mesmerized!"

GENERAL TOPICS

ECLIPSES IN ANCIENT EGYPT

From: Ayman M. Ibrahim <aymoib@mailer.scu.eun.eg>, To: <eclipse@hydra.carleton.ca>, Cc: <aymoib@mailer.scu.eun.eg>, Subject: [eclipse] Eclipses in Ancient Egypt!, Date: 30 September 2000 17:16

Dear Colleagues,
I am a young professional astronomer from Egypt. I am a great admirer of astronomy which I began as a serious hobby at the age of 12, more than sixteen years ago.
I am also a great admirer of ancient Egypt. I attach to this message a file containing my latest studies of the ancient Egyptian eclipses. I hope you would enjoy them.
Actually I have managed to find the way the ancient Egyptian described the solar eclipse: the ancient Egyptians referred to the eclipse as the "horizon of heaven", since in a total eclipse, the Sun disappears, a brief night (totality) lasts a few minutes, and then the Sun reappears.
Through my studies of the influence of eclipses in ancient Egypt, I found many stunning results.
Among which, solar eclipses were behind:

1.The choice of the illumination days of the sanctuary of the Great Temple of Abu Simbel.
2.The east-west alignment of the mighty Sphinx of Giza.
3.The choice of the location of the city of Akhetaten.
4.The erection of the obelisks of Thutmose I, Hatshepsut, Thutmose III, and Seti I.

www.infis.org/
www.jas.org.jo/article.html

I hope you would kindly post the file attached to the message on your website. Best Regards, Aymen Ibrahem

From: <NinaSandy@aol.com> Dear Dr. Ibrahim: I wonder if anyone would object to this is being off the list topic but I feel it is not since it relates to your work on solar eclipses in Ancient Egypt.

How does your work relate to the New Chronology postitiated by Dr. David Rohl? It suonds like your eclipse studies would conclusively decide the question of who is right - (Dr. Kenneth) Kitchen or Rohl?

Your material is interesting. Thank you. Sandy Sanders from Virginia

From: <NinaSandy@aol.com>
Dear Mr. Gessner: Dr. Rohl believes that the chronology for the Third Intermediate Period of Egyptian history [1069-669BC] (as postulated by Dr. Kenneth Kitchen of Liverpool University - he is considered the foremost leader on the period) is in error and primarily based on a Biblical reference that the Pharaoh Shishak who sacked Jerusalem in the fifth year of Rehoboam is Shoeksink I. Rohl points to certain problems in the dating.

An excellent source of Dr. Rohl's theory is the book "Pharaohs and Kings" (published in Great Britain as "A Test of Time") and Rohl has a web site with is easily found with a search engine.

Of course the dating of eclipses mentioned in reference to certain Pharaohs would settle the matter conclusively. Hence the question. I hope nobody's mad about this.

Sandy from Virginia

PS: I think Dr. Rohl is mostly right.

From: Ayman M. Ibrahim <aymoib@mailer.scu.eun.eg> Dear Colleagues, I believe that the chronology of Dr. Kitchen (the New Kingdom chronology of his book 'Ramesses II, the Triumphant Pharaoh') is wonderful at least till the end of the reign of Pharaoh Ramesses II. It is nicely consistent with both Sothic and eclipse dating. Eclipse dating (Ibrahem, 2000) made it clear that Year 9 of Pharaoh Amenhotep I was 1517 BC. (Through Sothic dating it has not been known whether Year 9 of Pharaoh Amenhotep I was

(Continued on page 8)

"Actually I have managed to find the way the ancient Egyptian described the solar eclipse: the ancient Egyptians referred to the eclipse as the "horizon of heaven", since in a total eclipse, the Sun disappears, a brief night (totality) lasts a few minutes, and then the Sun reappears."

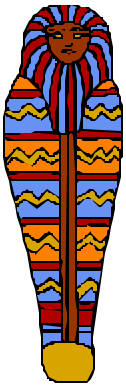
GENERAL TOPICS

ECLIPSES IN ANCIENT EGYPT– continued

1517 or 1537 BC, but 1517 BC was the more preferable). I'll check the third intermediate period. I have been most concerned about the year King Ahmose I drove the Hyksos away which defines the beginning of the New Kingdom. I have made my own Old Kingdom Chonology, which, I hope, I would forward to you soon. Many thanks for your so kind care of my emails! Best Regards, Aymen Ibrahem

From: Ayman M. Ibrahim <aymoib@mailer.scu.eun.eg>
Dear Colleagues, Dr. Bill Kramer of the 'Eclipse Chasers' kindly devoted an entire page for my studies of the Egyptian Cosmogony. The page is at:

http://www.eclipse-chasers.com/egypt1.htm



In the article posted at this page you'll find my study of the Hermopolitan Cosmogony in which I have proved that the ancient Egyptians believed the Sun to have been born through a solar eclipse. Best Regards, Aymen Ibrahem

From: Ayman M. Ibrahim <aymoib@mailer.scu.eun.eg>
Dear Eclipsers, Mr. Bill Kramer of the 'Eclipse Chasers' kindly added more of my studies of the ancient Egyptian eclpses to his website. You can find them at:
www.eclipse-chasers.com/egypt2.htm
www.eclipse-chasers.com/egypt3.htm
I am so grateful to him. I am also deeply thankful to Dr. Eric Flescher (KCStarguy@aol.com) who included the abstracts of my recent studies in his newsletter. My gratitude to both eclipsers is as wide as a supercluster of galaxies. I hope you would enjoy my studies. Best Regards, Aymen Ibrahem

> "I have been most concerned about the year King Ahmose I drove the Hyksos away which defines the beginning of the New Kingdom."

EYE DAMAGE IN 1999

From: <podmore@compcentre.uz.ac.zw> To: <solareclipses@aula.com> Sent: Wednesday, October 04, 2000 5:44 PM Subject: [SE] Any eye damage in 1999?

I know that eye-safety was a very big issue during the build-up to the 1999 eclipse. Certainly in Britain some people felt very strongly that eclipse viewers were risky.

Were there any documented cases of eye-damage (temporary or permanent) in 1999? In Britain or Europe or elsewhere? If so, what and where are the details?

Are there genuine reports from previous eclipses?

Thanks for any help you can give us for our eclipse preparations for 2001 and 2002. Francis Podmore

From: Daniel Fischer <dfischer@astro.uni-bonn.de>
There was one heavily televised case of a young German who had thought that all those eclipse glasses were just a marketing scam and who therefore deliberately stared into the partially eclipsed Sun for many minutes. He suffered retinal damage, but several months later he was said to have made a full recovery. Here is one short article on that from March: http://www.spiegel.de/wissenschaft/nf/0,1518,69107,00.html - the article claims that stupid guy was saved by his myopia... Daniel

From: Michael Gill <eclipsechaser@yahoo.com>
According to Hansard (debates and proceeding of the UK legislative bodies), Candy Atherton (MP for Falmouth & Camborne) submitted the following question before the > August 11th 1999 eclipse:-

"To ask the Secretary of State for Health what assessment his Department has made

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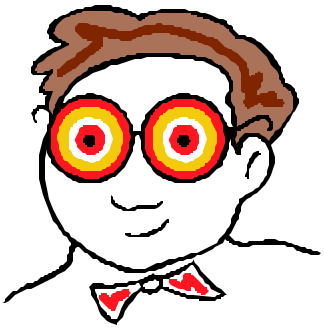


GENERAL TOPICS

EYE DAMAGE IN 1999-continued

from previous solar eclipses of eye damage caused by exposure to the sun's rays; and if such evidence was used as the basis for Government guidelines."

Part of the response of Minister John Denham was as follows:-

"Anecdotal evidence suggests that, in 1927, 13 people lost their sight due to retinal burns caused by viewing the sun directly during the last total eclipse visible from the United Kingdom. More recently, the Manchester Royal Eye Hospital carried out a study of patients presenting for treatment following the partial eclipse that occurred on 30 May 1984. They identified 11 patients of whom 7 suffered some enduring deterioration in visual acuity. " Michael Gill.

From: Apáti Nagy Gábor <angabi@elender.hu>
hi, I remember, in Hungary, was a boy whose eye had been damaged. I saw an interview on one of the country's commercial TV. As I know the damage was almost 100%. He is unable to read and -as they said- it won't be better...

And why did it happened??? Because he thought he had not need to wear eclipse glasses. He was watched the eclipse without spec. glasses... When he was felt bad, he begun using sunglasses (not eclipse glasses). -althought, there was free eclipse watcher glasses available in the area...

He thought his eyes are different than others' ANG

> "They identified 11 patients of whom 7 suffered some enduring deterioration in visual acuity."

OCCULTATION BY SATURN

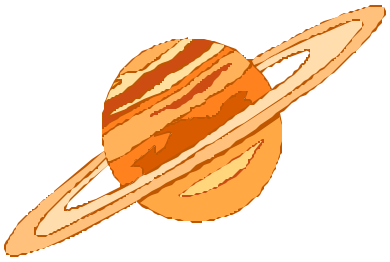
From: Jean Meeus <JMeeus@compuserve.com> To: Tom Alderweireldt <Tom.Alderweireldt@ping.be> Sent: Thursday, October 12, 2000 3:46 PM Subject: [SE] Occultation by Saturn

A member of our Belgian astronomical society has drawn my attention to an occultation of a rather faint star by Saturn in the night of 25-26 October 2000.

By means of the excellent software Guide 7.0 I found the following approximate times. These instants are expressed in Universal Time (UT).

The star has the designation GSC 1252 899 (GSC = Guide Star Catalog) andis of magnitude 10.7.

26 October 2000
0:00 The star disappears behind the ring (at the outer edge of the outer ring)
0:15 Short visibility through the division of Cassini, but close to the planet's limb
0:28 The star disappears behind the planet's limb (but probably is still behind the ring)
2:05 The star reappearsfrom behind the planet (between the planet's limb and the ring)
2:20 The star disappears behind the ring (at the inner edge of the inner ring)
3:00 The star is visible through the division of Cassini
3:20 Reappearance at the outer edge of the outer ring



Because the star is rather faint, it will be necessary to use a large telescope.

The occultation is visible in Europe, at high altitude. At Brussels : rise of Saturn at 17:39 UT (25 October), transit through the southern meridian at 1:14 (26 October), at an altitude of 57 degrees, set at 8:50 (after sunrise).

Jean Meeus

GENERAL TOPICS

VOODOO CHILE

From: <Dorjenyma@aol.com> Cc: <solareclipses@Aula.com> Sent: Wednesday, October 11, 2000 12:38 PM Subject: [SE] Voodoo chile

In 1967 Jimi Hendrix made a song called Voodoo Chile (from LP Electric Ladyland) the lyrics said : "The night I was born oh Lord I swear the moon turned a fire red" Was it a lunar eclipse ? Who knows when and where (date hour, place with lat and long) was born Jimi Hendrix ? Did an eclipse happened at this very moment or some time before or after ? If not what could be Hendrix' inspiration for that song ? Thanks, Dorje

From: Govert Schilling <mail@govertschilling.nl> To: <SOLARECLIPSES@AULA.COM> Sent: Wednesday, October 11, 2000 1:35 PM Subject: RE: [SE] Voodoo chile

Jimi Hendrix was born on 27 November 1942. There was no lunar eclipse that day. In fact, the moon was five days past full. --Govert

Govert Schilling Dr. H.Th. s'Jacoblaan 36 3571 BM Utrecht The Netherlands, e: mail@govertschilling.nl, goverts@casema.net, t: +31-30-2730229, f: +31-20-8821857, m: 0655-877287

From: Chris O'Byrne <obyrne@iol.ie>
According to http://www.jimi-hendrix.com/ story/hendrix.asp, he was born 1942 Nov 27 10:15am at Seattle's King County Hospital.

Did an eclipse happened at this very moment or some time before or after ?

According to Fred Espenak's list of lunar eclipses, 1942 Nov 27 is approximately mid-way between 2 lunar eclipses - on 1942 Aug 26 and 1943 Feb 20.

If not what could be Hendrix' inspiration for that song ? A lunar eclipse could easily be the inspiration for that part of the song. More likely to have been one that Hendrix saw as a child or adult - or maybe he was going on a description of lunar eclipses that he read somewhere. Chris.

LONG DURATIONS

From: Michael Gill <eclipsechaser@yahoo.com> To: <SOLARECLIPSES@AULA.COM> Sent: Sunday, October 08, 2000 11:36 AM Subject: Re: [SE] Long duration TSEs

Sheridan Williams wrote: The only consecutive years with TSEs longer than 6 minutes are: 1256/1257, 1274/1275, 1292/1293, 1592/1593 There are no more pairings before year 3000. Is it possible to have consecutive years with durations longer than 7 minutes?

If you look at Fred's list of 7 minute total eclipses...

http://sunearth.gsfc.nasa.gov/eclipse/SEcatmax/SE-2999-4000MaxT.html

...You can see that at each event, without exception Gamma has a negative value. The value varies between the range -0.019 at the -2212 total eclipse to -0.580 at the 735 event. (Incidentally, if you look at Fred's list for annular eclipses with a duration exceeding 11 minutes, the value of Gamma is positive for all events.)

We can see why this should be. One requirement for a 7 minute total eclipse is that the Earth needs to be close to its aphelion point. During our present epoch, the Earth is at this position in the (Northern Hemisphere) summer, when the Sun has a declination of around +22 degrees.

With the Northern Hemisphere tilting towards the Sun, Gamma needs to be negative or near zero in order for the Moon's shadow to fall onto Earth's equatorial regions. Here, the Earth's rotational velocity is near its maximum value causing the umbra's relative speed to be near its minimum value (another requirement for a 7 minute eclipse).

A positive value for Gamma around the time of aphelion causes the umbra to migrate to higher northern latitudes where the Earth's rotational velocity is reduced.

Wil Carton wrote: "See how much the parameter Gamma varies between consecutive TSE's, due to the 19 days shorter 'eclipse year' than the earth completes one orbit around the sun."

Looking at the four pairs of 6 minute total eclipses that Sheridan pointed out, the smallest range of Gamma between successive 6 minute eclipses is 0.736 (the 1592 and 1593 events). This is still greater than the range of Gamma (0.561) for the fifty-four 7 minute eclipses taken from Fred's list. Although there are no 7 minute total solar eclipses in successive years during the time span that covers the period -2999 to 4000, can anyone state definitely that such an occurrence is indeed impossible?

In addition, is it possible for two separate Saros families to produce 7 minute eclipses in the same epoch (an obvious requirement for two consecutive 7 minute total eclipses)? Looking at Fred's list there is no overlap between different Saros families at all. Michael

GENERAL TOPICS

SAROS 'GLAM SLAM'

From: Michael Gill <eclipsechaser@yahoo.com> To: <SOLARECLIPSES@AULA.COM> Sent: Sunday, October 08, 2000 11:39 AM Subject: [SE] Saros 'Grand Slam'

There are many people on this list who have seen more than one total eclipse. Some have been to over twenty totalities.

I was wondering though, if any person living or dead had managed to see at least one eclipse from each Saros family currently producing total eclipses.

Glenn Schneider and John Beattie did very well getting to see the total eclipse of October 3rd 1986, but since this Saros family will only produce partial eclipses from now on, I suppose Saros 124 drops off the 'active' list!

The Saros families currently producing total eclipses are 120, 126, 127, 129 (currently producing annular/totals), 130, 133, 136, 139, 142, 143 (last event was a total eclipse, next one is an annular/total), 145, 146 and 152.

I'm sure the big hurdles for many on this list are Saros 129 and Saros 152.

Saros 129 produced its first annular/total (hybrid)eclipse in March 1987, after a long sequence of annular events. Although I know of some people who went to Gabon for this diamond necklace event, the umbral cone only touched down on the Atlantic Ocean. Was anyone there to see it?

The next event for Saros 129 is on April 8th 2005, and totality will only be witnessed from the southern Pacific Ocean. A cruise ship seems to be the only viable option of getting to the portion of this eclipse track from where totality can be observed.

Saros 152 is a young Saros that has started producing total eclipses in far southern latitudes. The next total eclipse in this family occurs on November 23rd 2003. Did anyone witness the November 1985 or November 1967 events? I suspect not.

Certainly for me, if all goes well in the meantime and I manage to get to the (rather inaccessible) 2003 and 2005 events, I will have completed the 'grand slam'. How many others will do the same? Michael Gill.

From: Glenn Schneider <gschneid@rtd.com>
Actually, Michael, the only "record" I'm really interested in is seeing the most eclipses from a SINGLE eclipse family (i.e., N x 18yr 11.3 days). I don't really care *which* family, though I do hope to see the 2079 eclipse. (I'm counting on medical science advancing to the point where in my old age I can be flash-frozen and thawed out for eclipses. Well, maybe not, (even *I* am not that far gone...). I actually wonder who holds this distinction today? I certainly don't go back far enough, yet. Did anyone on this list see '37, '55, '73, and '91? THAT would have been spectacular to have seen the last four "big ones". Cheers, Glenn Schneider http://nicmosis.as.arizona.edu:8000/

From: Mick Wolf <mickwolf@picknowl.com.au>
Glenn, perhaps you may be interested to know that I have observed the following eclipses:1976+1994,1980+1998,1981(annular)+1999 + 1983. The 2001 will complete the saros. Mick.

VIEWING THE SUN

From: JD Slaton <Deepsky000@AOL.COM> To: <HASTRO-L@WVNVM.WVNET.EDU> Sent: Sunday, October 22, 2000 3:12 AM Subject: Re: Viewing the sun

There are safe ways to view the sun with telescopes. For an example, take a look at the Herschel Wedge on one of my telescopes. This one is from the twenties, but the technology existed long before that.
The Alvan Clark Telescopes and Accessories and a close up can be seen here second row, last one on the right
PHOTOS FROM SIRIUS OBSERVATORY, The typical cheap telescopes you buy at discount stores have a "dark glass" that you are supposed to put over the eyepiece in order to view the sun. These are not too safe, as they often break from the heat generated from magnified exposure to the sun. The Herschel Wedge uses a prism which directs most of the sun's light away from the eyepiece. A small portion then goes through a dark filter. This type of system is still used and sold today, mostly for refractor telescopes. Projection on a white card can be made in the sunlight, (take a look at an example of it here about 1/2 way down the page)
The Mercury Transit Geek Fest 1999, Hope this information helps you with your research. Jon
From: Steven J. Dick <dick.steve@USNO.NAVY.MIL>
It is my recollection that the American expeditions used a Herschel wedge with the 5-inch Alvan Clark refractors for observing the 1874 and 1882 transits of Venus.

Steve Dick, U. S. Naval Observatory, 3450 Massachusetts Ave, NW, Washington, DC 20392-5420, Phone 202-762-0379, Fax 202-762-1489, e-mail dick.steve@usno.navy.mil

COOK'S TRANSIT OF VENUS

From: George Huxtable <george@HUXTABLE.U-NET.COM> To: <HASTRO-L@WVNVM.WVNET.EDU> Sent: Saturday, October 21, 2000 8:09 PM Subject: Cook's transit of Venus

Captain James Cook, with astronomer Charles Green, observed the transit of Venus in Tahiti in 1769. This was one of the measurements in which the timing accuracy was bedevilled by the well-known "black drop" phenomenon. The measurements were reported in Phil. Trans. Roy. Soc.,vol 61, pp 397-421, (1772).

The instruments provided for Cook included two Gregorian reflectors of 60 cm focal length and magnification of 140. I haven't seen an aperture quoted, but as one of these telescopes still exists at the Royal Society, the aperture should be well known.

I am trying to ascertain what method would have been used by Cook to limit the light to a level that avoids damage to an observer's eye, during the prolonged observation that was made. He doesn't say in his paper how this was done. Perhaps he thought it would be obvious to his readers, but it's not obvious to me.

The Sun could perhaps have been observed by projecting its image onto a white card. To me, it seems unlikely that this method was used, because the observatory would need to be blacked out, to some extent, and I can find no mention of this. Also, Cook's account reads as though he and Green were making simultaneous observations through separate telescopes, whereas if the image was being projected, the card could have been observed by a number of viewers.

So it seems more likely to me that the transit was being observed directly by eye through the telescope. In that case, a high degree of light-attenuation would be required to make it safe to view. Some reduction of light could have been obtained by stopping down the object glass, at the expense of resolution. It seems to me that a dark (very dark) filter would in any case be required to obtain the great reduction in light level that was necessary. Would this be a dark glass filter in, or attached to, the eyepiece? If so, it would be expected to get rather hot, as it would be dissipating all the energy that was incident on the objective. Would such a dark glass, of high optical quality, be part of the kit that would normally accompany such a telescope, or would one have been specially provided for the transit observations? In any case, Cook would expect to possess dark shades as accessories to his quadrants, which would be dark enough to safely allow direct viewing of the Sun (though perhaps not safe for viewing of the magnified image of the Sun). For observing the magnified transit, a higher optical quality would be required than was adequate for measuring Sun altitudes by the quadrant.

Perhaps a large-diameter dark shade was available which could cover the complete aperture of the telescope and was of sufficient optical quality. This would have the advantage of preventing the excessive light and heat from entering the telescope.

Or perhaps Green was expected to apply a suitable smoking to the glass of the eyepieces.

All the above is hypothesis; no more than my own speculations about how the job would have been done. But I imagine that the techniques used by the observers of Cook's day for observing solar eclipses, sunspots, transits (all of which present the same problem of attenuating the light energy) must have been set down somewhere. Can anyone kindly provide a reference, or simply give his own view of how Cook's observations would have been made?

My questions stem from wondering whether heating of the optical components and also heating of the air in the telescope might give rise to optical distortions and bad seeing, and whether those effects could make a major contribution to the "black drop", which spoiled so many observations. George Huxtable. george@huxtable.u-net.com George Huxtable, 1 Sandy Lane, Southmoor, Abingdon, Oxon OX13 5HX, UK. Tel. 01865 820222 or (int.) +44 1865 820222.

From: Robert B. Ariail <skyhawk-@MINDSPRING.COM>

(Continued on page 13)

"So it seems more likely to me that the transit was being observed directly by eye through the telescope".

COOK'S TRANSIT –continued

Dear George, Your interesting e-mail leads me to provide a few details that I suspect may be part of the answers you seek. Present time restraints do not allow me to investigate this matter thoroughly at this time. I will simply provide a bit of information evident from comtemporary telescopes within the time period you detail.

I think that you are correct in both of the above assumptions. That is, the use of dark filters and stopping down of the objective. I have a 18th century Ramsden refractor contemporary with the instruments used by Cook in 1769. This instrument has an object glass of 3-inches aperture. It is accompanied with a complete set of about six oculars most of which (about 4) have brass caps containing thick black filters which thread over the field lens of the ocular. This telescope also has a brass cap providing a reduced aperture measuring 1 1/8-inches. There is no question that this telescope was used for making direct observations of the sun with a variety of powers.

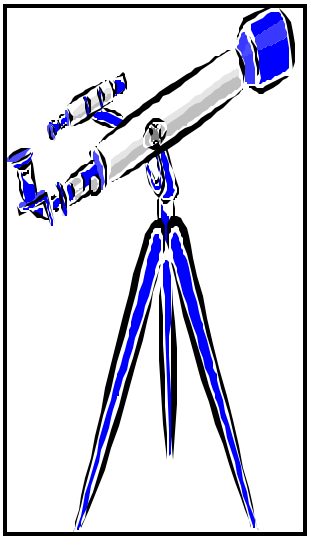
I likewise have a Gregorian telescope by Benjamin Martin (1714-82) again contemporary with Cook's instruments that I feel certain was utilized in a similar manner. This small 3-inch Gregorian has a lens cap that bayonets into the tube but contains a threaded reducer cap of slightly less than two inches. Regrettably, this Gregorian instrument along with others that I own are setup on display with the cases and accessories packed away at a somewhat inaccesible location at present. I feel confident, however, this instrument - and others like it - were used in a like manner to the Ramsden telescope described above.

As stated above, the filters were built into eyepiece caps that threaded into the astromomical oculars allowing use of the telescope with a standard set of oculars to be used on the sun or for the stars, moon and planets (without the filter cap, of course). These brass caps threaded into the oculars themselves. All of the equipment came as a set with the telescope or could be ordered from the maker separately. The filter material had to be dark and heavy to reduce the light to 1/1000th and prevent cracking even with reduced aperture. My Ramsden was surely used throughout the centuries but has all of its filters intact with none being cracked. This is quite unusual I would think, direct vision with filters being the most unsafe method of observing the sun.

Heating of the optical components and the air inside the tube would surely reduce the steadiness of the image and the resultant definition. I would suspect even the 18th century observers realized this and turned their instruments away for short periods to 'cool down' the system. Also, the splitting of a filter of two (which surely occured with some frequency) would alert all solar observers to proceed accordingly. I doubt that the possible reduced definition from heating greatly affected the black drop effect.** This is purely an optical phenomenon as prevalent in modern telescopes (using full filtration systems across the objective or high quality Herschel wedges both of which eliminate or disapate the heat) as in the early telescopes. Some authorities believe this effect to be caused by irradiation and refraction of sunlight in the planet's atmosphere. Others due to disturbances in the atmosphere of the earth. Any good volume on Venus or Mercury should provide excellent detail on the "black drop effect". I have listed a few of possible interest.

Re: FACTS ON FILE DICTIONARY OF ASTRONOMY, Illingworth, (1985); THE PLANET OBSERVER'S HANDBOOK, Price, (1994); THE ATLAS OF MERCURY, Cross & Moore, (1977).

Bob Ariail, Robert B. Ariail, 1322 Belmont Drive, Columbia, S.C. 29205 USA, Ph. 803-7824915



"Heating of the optical components and the air inside the tube would surely reduce the steadiness of the image and the resultant definition".

SOLAR ECLIPSE CONFERENCE 2000

A CROSSROAD ON PHYSICS & ECLIPSES OF THE SUN

The solar eclipse conference happened on Saturday the 14th and 15th October, 2000. Attended by one-hundred and fifty delegates.

Elzenveld was the venue in the touristy heart of Antwerp, Belgium. Most people arrived on Friday evening, travelling from near and far.

The eclipse world tends to be very incestuous, but only to the point were we meet each other in some distant airport or railway station completely by chance, as Patrick and myself did Gernot Meiser in Malaya in August 1998. Patrick's first became acquainted Paul Maley in Kenya 1980 and with Wasyl Moszowski in Mexico 1991.

Therefore the main objective of the conference was to bring together professionals and amateurs, with the extra dimension of covering all aspects of solar eclipses. This conference was intended to be available to everyone.

The guest speakers were invited to give forty-five minute lectures, on their specialist subject. These were to become affectionately know in our household as the magnificent ten.

Realistically the work began a little over a year ago. But the last three months before the actual date were absolutely hectic, arranging tickets, pick ups from the airport, finalising food, preparing the folders containing the booklets and leaflets. Making sure Elzenveld had all the right technical

(Continued on page 15)

From: SKYLOOK.NET To: Patrick Poitevin Sent: Tuesday, October 24, 2000 1:39 PM Subject: SEC group picture

Dear SE listmembers and attending the SEC 2000, I have put in my website the group picture taken during the SEC 2000 in Antwerp, Belgium. You will find it at http://www.skylook.net/eclipses/sec/seci.htm (english) or http://www.skylook.net/eclipses/sec/sece.htm (spanish). For better convenience there are three image sizes:

* BIG IMAGE: 2.8 Mb ZIP file (jpg image, aprox. 20x55 cm at 300 dpi)
* MEDIUM IMAGE: 1.0 Mb ZIP file (jpg image, aprox. 10x27 cm at 300 dpi)
* WEB IMAGE: 173 Kb jpg image at aprox. 800x300 pixels

The image was carried out assembling digitally seven individual pictures taken with a "point and shoot" Nikon camera used in several solar eclipses. Best regards, Juan Carlos Casado, www.skylook.net

From: Raoul Lannoy <raoul.lannoy@pandora.be>

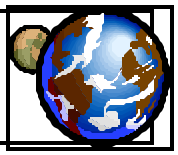
Hello, Here are pictures from the Solar Eclipse Conference in Antwerp (go below "special events": http://membres.tripod.fr/Ad_Astra/index-02.html Raoul Lannoy, Nerviersstraat 19, 2018 Antwerpen, Belgium, Tel: 32.3.288.55.67 GSM:0486.89.24.61, 51d12m25sN-4d25m21sE, http://membres.tripod.fr/Ad_Astra/index-11.html, http://users.pandora.be/raoul.lannoy/index.htm

FIRST CONTACT

equipment for the presentations was always a worry. But the worries were unfounded as the technician Ludo was excellent. The programme was more than full, with the presentations given by delegates covering a great many subjects.

The delegates began to register at 8.30 a.m. on the Saturday morning, receiving a folder containing all the necessary information including the programme. The day was divided with eclipse nomenclature. "First contact" then beginning the first lectures on Saturday morning. The first set of lectures were orientated towards solar physics, with Serge Koutchmy an Astrophysicist from Paris. The morning also included talks from the Royal Observatory of Brussels who also helped sponsor the whole project. The morning was concluded by Barrie Jones the head of Physic and Astronomy Department, Open University on every one's favourite topic, shadow bands. The phenomenon resulting when the sun remains as only a thin crescent. He also talked about temperature changes during eclipses and pressure changes. However his conclusions are that pressure changes during eclipses are not yet proven.

Serge Koutchmy starts the action from the ten invited guest



Barrie Jones talks about the elusive shadow bands

SECOND CONTACT

The variety of presentations given at the conference kept everyone awake even after a wonderful lunch.

The afternoon section reconvened with Paul Maley talking about why we should all travel to the edge of totality to view spectacular Baily's Beads. Well he managed to convince me, I will certainly be doing that one of these days. Paul's lecture was followed by a film by eclipse chaser Gernot Meiser. Gernot used to be a director of an observatory, however decided that being your own boss cannot be beat, and is now working as a free lance journalist. He announced that in this capacity he was going to leave for Africa six months before the next total solar eclipse. I believe you could hear a pin drop in the room. The film he presented was of his passed travels to Siberia, Bolivia and Columbia all set to the music of 1492. I have seen the film before in Germany and knew that the rest of the audience was in for a treat. It brought a lump into my throat then, and did again. So I personally cannot wait for the film from Africa.

Jay Anderson's lecture concerning weather was so enlightening. The correct way to take measurements, temperature drops, wind speeds. Top Tip: stay away from mountains where the wind blows uphill. Thunder-


Gernot Meiser—a film to look out for in the future

SOLAR ECLIPSE CONFERENCE 2000

storms get worse. Stratiform clouds will increase. 1:8 eclipses are clouded out.

I think in this new millennium we should all be able to have replicas of Jay to take on trips for our own weather predictions. Perhaps we could lower the ratio shown above.

Olivier Staiger—Live WebCams

TOTALITY, THIRD AND FOURTH CONTACT

After a ten minute break the afternoon continued with talks from Olivier Staiger on live web cams, delegates from Zambia, and Juan Carlos Casado, who also took the group photograph at the beginning of this report, and kindly allowed us to show it.

The guest speaker in the afternoon was Professor Hiei who described the physical conditions of the coronal structure.

I mentioned earlier the variety of presentations and the evening rounded off at 8.00 p.m. after two films.

One twenty-four minute film by David Makepeace, and by no means least, one fifty-eight minute film by Jean Marc Lariviere. This film showed no eclipse footage other than a few brief shots of partial phases, and I thought, there goes the audience. But the film proved to be enthralling. En-capturing the essence of eclipse chasing. The whole obsession thing, and certainly all the emotions.

Eijiro Hiei (Japan)

Jay Anderson—Meteorologist

Highlights from the second day were as good as the first. Ralph Chou gave lessons on eye safety, and the effects of retinal burns.

Fred being the king of predictions is a lecture I relish as I think everyone does. I can only sum him up as poetry on the podium. Ed Krupp was also another speaker which I could not wait to hear, and was not disappointed. His presentation about eclipse lore and myth using two projectors was entertaining and snappy brings folk lore right into the present.

Dinner in Antwerp Zoo

Fred "Mr Eclipse" Espenak - Predicts all our futures

When I think of our bookshelves at home, and the articles both Patrick and I read, then looking around the room at the conference realizing how many of these people were there. Then I realize how lucky I was to have attended and helped support Patrick in this endeavour. One other amazing observation was that I have never seen so many people attend so much of a conference.

Having experienced a few conferences astronomy and work related, usually the room is half empty. But in Antwerp not one bit of it, and when you consider how many lectures were packed into two days, it just goes to show how passionate eclipse chasers are about their hobby or profession, it was just amazing. I can only close by thanking everyone who attended, bring-

ing their knowledge and experience, and sharing that with everyone, that was one of the most wonderful aspects of the conference, that these great people are so happy to pass on their knowledge to the benefit of everyone, I for one am a most grateful recipient. I hope others learnt as much as I did. What's more it was great to see everyone together meeting after long periods apart, that also brings great satisfaction to both Patrick and myself.

Special thanks must go to Mark Peebler (It's all good companies) who unfortunately could not be present. Urania Observatory in Antwerp, especially Didier Van Hellemont, a real star, also to Daryl Barr who supported Patrick even over 5,000 miles.

Report:

Joanne Edmonds

Some reactions received in regard of the SEC2000

From: Daniel Fischer <dfischer@astro.uni-bonn.de> To: <SOLARECLIPSES@AULA.COM>Sent: Monday, October 16, 2000 7:50 PM Subject: [SE] The quintessence of the Antwerp conference ...

... w.r.t. to planning your own expedition to Zambia has been summarized on http://www.astro.uni-bonn.de/~dfischer/2001 - in German, unfortunately ... Daniel Fischer

From: <Kidinvs@aol.com> To: <SOLARECLIPSES@aula.com> Sent: Tuesday, October 17, 2000 3:54 PM Subject: [SE] SEC 2001...

Dear Patrick, and Joanne, I dont want to bog down this list server, but I needed to publicly thank you for all the efforts you 2 put into making this conference a complete, and total success. As an organizer of eclipse tours, I know what is like to try to make big plan come together ... and the two of you did it wonderfully.

I still have jet lag, I still have a terrible case of the flu, but I also have wonderful memories, and new knowledge that is priceless. The flu and the jet lag will pass. The experience will stay with me forever ... sort of like each and every eclipse I see. The speakers were wonderful, the program was well rounded, and the participants were wonderful people. It is always great to meet people that have exchanged email for so long. Thank you, thank you.... I hope everyone has found their way home safely. Eric Brown, www.eclipsesafaris.com

From: <podmore@compcentre.uz.ac.zw>

My sentiments EXACTLY - WELL DONE to Patick and Joanne (:)))))))) PS Have a Good Holiday (if you can), Dr Francis Podmore (Senior Lecturer) 48 Pendennis Road, Department of Physics Mount Pleasant, University of Zimbabwe HARARE, P.O. Box MP 167 Zimbabwe, Mount Pleasant, HARARE, Zimbabwe, Tel: (263-4) 303211 Ext 1629 or 1427 (263-4) 744287, Fax: (263-4) 333407 or 335249, Email: podmore@compcentre.uz.ac.zw

From: P.C. Kalebwe <PKalebwe@natsci.unza.zm>

Patrick and Joanne, Thanks for the nicely organised conference. All of us know that it is not easy to organise a conference of such magnitude and International for that matter. Must be a busy game. No wonder Joanne lost her voice. I do support Francis in proposing that you go on a holiday even in your backyard! I say hats off to both of you.

Looks everybody landed safely! With best wishes, Peter in Lusaka, P. C. Kalebwe, Dept of Physics, University of Zambia, P O Box 32379, LUSAKA, ZAMBIA, Fax: 260-1-253952, Tel(w): 293343

From: Henrik Glintborg <glintborg@private.dk>

"The experience will stay with me forever ... sort of like each and every eclipse I see."

Some reactions received in regard of the SEC2000

I would also like to thank you all, and especially Patrick and Joanne, for a most wonderful conference in Antwerp. I had a great time with all the exiting speaches and it was good to "put faces" on the other "eclipse-mad" people around the world.

To all of you, that did not participate: You have to come next time, and I would suggest the next conference being held in 2 years time. We have so much to talk about...!

See some of you in Zim! Henrik Glintborg, Information Manager & Travel Coordinator, Tycho Brahe Planetarium, Gl. Kongevej 10, DK-1610 Copenhagen V

From: Patrick Poitevin <patrick_poitevin@hotmail.com>

Dear all, To those who could not make it at the SEC2000 in Antwerp, you missed something. Proceedings will be due in a few months but never will reflect the conference. Compare the experience of an eclipse with the records you see after...

To those whom all send messages (via the SEML or private), a big THANK YOU. The last two days, we have been overwhelmed with nice, warm and friendly messages from everywhere. It was a pleasure to see, to hear and to read that everybody had a truly good time during the conference. We hope everybody had a safe and nice trip back home.

Please do not forget, without all the speakers it would not be possible, all the support of the Royal Observatory, the EIT team Belgium, Rainbow Symphony, Explorers Tours, Sanitec, the Solar Eclipse Section Belgium and anonymous gifts from Germany and the USA.

Special thanks to all the guestspeakers, in fact all the speakers, the chairmen (Frederic, David, Pierre, Edwin and Didier), the carpoolers (Michael, Els, Alain, Carl, Wim, Koen, Didier, Georges), the poster contributors, the leaflet and booklet providers, the WebPages and mailing list owners, the facility of Elzenveld, the gastronomically help of Peter Van van Einde, the wonderful people of the Public Observatory Urania of Antwerp.

But, the conference would not have taken place without the help of Mark Peebler for the registrations and the wonderful WebPages, Jan Van Gestel with his server for the SEML, Didier Van Hellemont for all the logistic help in Belgium, Greet Poitevin for the administrative help and all the sweets at the breaks, Ludo the technician of Elzenveld, Derryl Barr for all the support and help all over the years and specially in the preparations of the conference, and last but not least our kids Michael and Laura whom made a wonderful conference folder, and helped with a lot of administrations. We, Joanne and I, are proud of you all: THANK YOU!!!

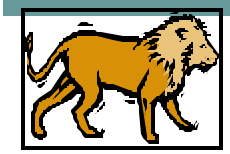
A NEXT SEC? It had been a hell, a race, a monument to raise, a hard work...
Do not expect an international eclipse conference every year. But .... why not every year when we do not have a central eclipse?

Driving back from Belgium to England, the fundaments have been made of SEC200X and we decided to continue of what we started. The reactions are too good, too positive and too motivating. We are not telling you when, where and how, but all comments and recommendations are more than welcome. Let's make it better and ... see you then.

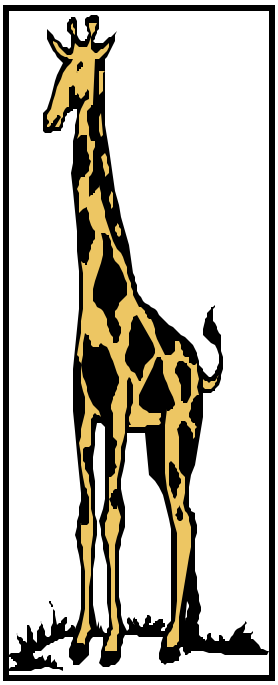
PS: As promised earlier, I will start immediately with the update of the monthly Solar Eclipse Newsletter and the distribution of the Solar Eclipse Calendar.

Best regards, Patrick, Patrick Poitevin, 7A The Drift, Rowlands Castle, Havant Hampshire PO9 6DG, ENGLAND Tel. +44 (0)7901 514 097 E-mail: Patrick_Poitevin@Hotmail.Com, Listowner Solar Eclipse Mailing List: To subscribe send E-mail to listserv@Aula.com, with in the body SUBSCRIBE SOLARECLIPSES name, country, Solar Eclipse Newsletter: Browse and read archived SEML messages from http://www.MrEclipse.com, The index for the "Solar Eclipse Newsletter" is located at: http://www.MrEclipse.com/SENL/SENLinde.htm

"Driving back from Belgium to England, the fundaments have been made of SEC200X and we decided to continue of what we started."



AFRICA 2001



AFRICAN MYTHOLOGY

From: Helen Griffiths <helen_griffiths@mindlink.bc.ca> To: solar eclipses <solareclipses@Aula.com> Sent: Sunday, October 15, 2000 9:00 AM Subject: [SE] African mythology re solar eclipses

Does anyone know if there are any tribal groups in Zambia that have any particular belief systems regarding solar eclipses? For example, we know of the sun-eating dragon in Asia. What about Africa? I'm sure I saw something about this somewhere on the net but I didn't bookmark it and now I can't find it anywhere. I look forward to hearing from you... Helen

From: <Dorjenyma@aol.com> You'll find many informations about eclipses and mythology in the book : "Les eclipses mythes et symboles" by Christophe Lanier (Editions Peuples du Monde, Paris, 1999) About Africa see page 167 to 172 (les éclipses dans la mythologie africaine), see also pages 26, 27, 222 and 233. Dorje

From: J.P. van de Giessen <jpvdgiessen@gelrevision.nl> Helen, Here are some myths:

Gleti (Benin) Moon goddess. She is the mother of all the stars (Gletivi). An eclipse is said to be caused by the shadow of the her husband when he comes to "visit". (http://www.cybercomm.net/~grandpa/mytlogy2.html)

Mawu-Lisa; Dahomey supreme deity. Mawu, the moon, is the female half of this androgynous deity. She is called the wife or twin of Lisa, the sun. Together they created all the other deities. When they mate, it causes an eclipse. (http://www.angelfire.com/ca/GoddessMythology/African.html) When there is an eclipse of the Sun or the Moon, the Fon people think that Mawu and Liza are making love. Mawu and Liza are the parents of seven pairs of twins. These twins are gods with different domains. Mawu is the goddess of fertility, joy and rest. Liza is the god of day, heat and strength (http://www.up.ac.za/academic/education/didactics/learner/1999/moore_aj/e-cv /portfolio/projects/articles/moon/mawu.htm) (See also: http://www.fellowshipofisis.com/liturgy/mel6.html)

Some West African tribes explained a lunar eclipse by saying that a cat is eating the moon. They believed that the sun returns over the same route at night as it does during the day. An eclipse means the moon, having lost her way, has obstructed the sun and is being devoured by him. The natives tried to help the moon by ritual, using slow hand clapping to persuade the solar cat to release her. (http://www.sniksnak.com/lore4.html)

JPvdGiessen, Astronomical Books Online, http://home.gelrevision.nl/~jpvdgies/indexbooks.html, jpvdgiessen@gelrevision.nl

From: Marc Weihrauch <marc.weihrauch@student.uni-halle.de> Hello, That sounds as if the Africans - or at least this particular tribe - knew what causes solar eclipses. Is this right?

Is there a good source in English or German about solar eclipse myths in general? There seem to be two main explanations for eclipses in mythology:

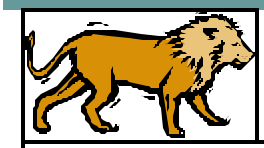
1. A dragon or demon eating or attacking the sun. (Rahu in India, Apep in Egypt,...)

2. Sun and moon making some more stars or whatever ;).

I'm always interested in eclipse mythology, so if anyone can tell me some more stories or names or recommend me a good source, I'd like to hear from you :) Marc

From: Michael Simmons <msimm@ucla.edu> You can also see a dragon from Persian mythology eating the Sun on the cover of Nojum (Iranian Astronomy) Magazine's special eclipse edition on my web page at home.earthlink.net/~msimm/Iran99/Picture_pages/Eclipse/03Nojum_cover.htm
I can't tell you the dragon's name since I don't speak Farsi. :-) I can get it, though (if it has a name).
In the same edition of Nojum, there is another about eclipses, depicted in drawings (not on my web page but I can send it to anyone interested). An old woman takes the Sun and puts it into a bag that she carries over her shoulder, cutting off the light. There is a hole in the bag, though, and the Sun slowly slips out of the hole as the old woman walks. Mike Simmons

"An old woman takes the Sun and puts it into a bag that she carries over her shoulder, cutting off the light."



"WHAT WILL THE ANIMALS DO DURING A TOTAL SOLAR ECLIPSE"

AFRICA 2001

ANIMAL BEHAVIOUR

From: <podmore@compcentre.uz.ac.zw> To: <solareclipses@aula.com> Sent: Wednesday, October 04, 2000 6:00 PM Subject: [SE] Animal behaviour during total eclipses

Several people have asked me "What will the animals do during a total eclipse? Might they be very alarmed and dash about??"

This is a genuine concern since the 2001 eclipse track passes through a number of game parks and safari areas where many visitors will go to watch the eclipse. And large numbers of frightened animals (lion, buffalo, elephant, etc) would be a serious risk to people's personal safety.

The Wildlife Society of Zimbabwe is willing to do a research study on just what does happen. But has such a study been done before? What was found? Where are the reports?

I have found and heard of a number of verbal accounts that birds and domestic animals did behave very unusually, but is there a body of animal/bird/insect/fish/... behaviour scientific literature on the subject?

Surely eclipses must have passed over wildlife areas in the past - what happened??

Just after the 1999 eclipse I saw a letter in two British newspapers asking people to send in any reports (with video evidence if possible) to Rupert Sheldrake, who was wanting to collect observations. When I emailed him (and you can find his website using www.google.com) he had not received anything substantial.

But even NEGATIVE evidence (e.g. "In the xxxx total eclipse all the animals did not display any unusual behaviour") would be very reassuring both for our Department of National Parks AND for those intending to go to an area with potentially dangerous animals. (I think you can forget the birds, fish and insects for now!!)

Can anyone help? Thank you. Francis

From: Hugh DeMann <hdemann@yahoo.com>
Hey All, I seriously doubt that animals are going to stampede due to an eclipse. And if they do, they are unlikely to take out their frustrations on nearby people. My experience with animals in eclipses is that they go to bed (or do whatever they normally do at nighttime.)

From: <Kidinvs@aol.com>
... I agree with Hugh... I have seen 6 eclipses, all with some sort of animal presence.. birds, dogs, fish, deer. At most, they seem confused, and hide as though nighttime is approaching. Never did they seem scared.

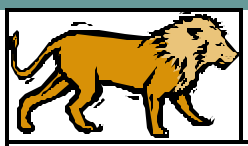
From: Bill Kramer <bill@autocode.com>
I have been to two eclipses near wildlife (Africa 1980, Java 1983). In each case, the wildlife has reacted, but it should be noted that they did nothing abnormal. Nocturnal animals awoke for the night will others headed to nest. The birds were the most visible as they took flight - but not in one singular group. We heard animals making noises (complaints about a short day or sleep?). In fact, the only animals to exhibit very strange noises and behavior during the eclipse were of the human species (or close relatives). Bill Kramer http://www.eclipse-chasers.com -- Eclipses of the Sun and Moon

From: Olivier Staiger <olivier.staiger@span.ch>
(I think you can forget the birds, fish and insects for now!!)

Well, I think you should NOT forget the insects. In 1994 in Brazil I received 4 bites from mosquitoes during totality ! Remember: mosquitoes mostly come out at dusk ! And totality IS dusk . Thus, you should not go out in T-shirt and shorts to see the eclipse. Wear long sleeves and jeans on E-day. Malaria is a serious problem. Olivier "Klipsi" Staiger http://eclipse.span.ch mobile phone +41.79.449 4630 Geneva Switzerland E-mail: olivier.staiger@span.ch A member of the Outerspace Advertising Network http://www.outerspaceads.net

From: Carton, WHC <Wil.Carton@corusgroup.com>
Indeed! During the 90 seconds of totality in Finland (22th July 1990) I have been severly bitten by mosquito's, just below the handkerchief that I had around my head to cover it against mosquito's. The bits were a real chain of red "pearls" on my forehead. Wil Carton.

From: Peter Tiedt <Peter.



AFRICA 2001

ANIMAL BEHAVIOUR—continued

Tiedt@npc-eagle.co.za>

Is this the first reported sighting of "Wil's Beads" :-)))

From: Glenn Schneider <gschneid@rtd.com>
A few first-hand, but admittedly subjective observations.

1972 - Southern bank of the St. Lowrance River. 2 minutes before totality a cloud of mosquitoes rose up from the river bank (where none had been seen for several hours before) and bit the heck out of us during the eclipse - which we were clouded out of anyway - adding insult to our misery. I can't "forget the insects for now". Had we NOT been clouded out, I might not have been able to operate my cameras for fending off the hungry horde.

1976 - Summit of Mt. Delagate (Australia). Also about 2 minutes before totality (gloriously seen through a large drifting hole in broken clouds) a chorus of cattle clamored a cacaughophy with the approach of the umbra. The hillsides below us were rife with domestic cows, mindlessly chewing their cud until t-2 minutes, then the mooing dominated all other sounds around us. No stampede, just surround-sound of mooing. I don't know if you would venture to extrapolate this bovine behavior to African carnivores, that may be a stretch.

Aside: 1n 1991, in Buena Vista, Baja California, my wife who was seeing her first TSE, having heard an audio tape of the cows of '76, asked during totality while we were lying on beach blankets on the Mexican beach sand "so, where are the cows?" (I have THAT on tape too...)

1990 - Atka Island (Alaska). During totality the otherwise omnipresent bald eagles which inhabit the island (prolific as pigeons in the park) were nowhere to be seen. Maybe it was the eclipse, or maybe the rain (another cloud out, ugh!) which sent them to their eeries.

1994 - Bolivian Altiplano (near Huachacalla). Noted minutes AFTER totality that a heard of ~ 50 llamas had returned to graze at their "home turf", which was right by our campsite. None were seen in the immediate area before second contact. Thus, the MUST have been on the move DURING totality, but we were too oblivious to movements on the ground as we were glued to the celestial movements above.

1999 - On the Black Sea. Dolphins were seen frolicking near the ship we were on shortly after third contact. Maybe they would have done so anyway, but I hadn't seen any at any other time except as we passed through the Bosporus many days earlier.

Reprise: 1974 - Cape Leeuwin, Austraila. Told before on the [SE] mail exploder, the tale of "the Dog, the Sea Gulls, and the Jackass", so to save bandwidth see: http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/ECLIPSE_74/ECLIPSE_74_REPORT.html

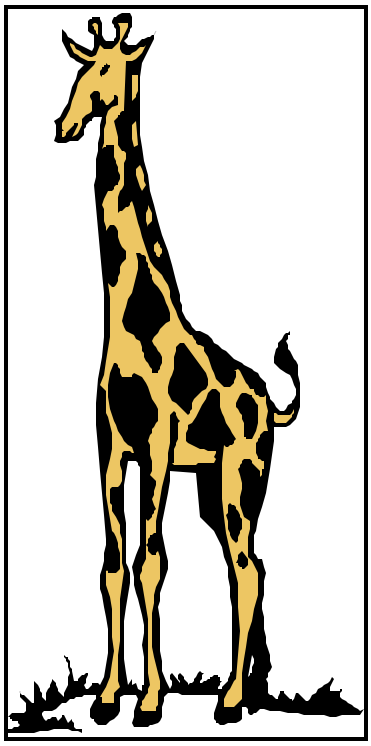
Cheers! Sorry I will miss the conference, but hope to see some of you in Zambia. Glenn Schneider http://nicmosis.as.arizona.edu:8000/

From: Evan Zucker
Glenn apparently has a better memory than I. As he knows, I was with him (and the Amateur Observers' Society of New York City) on 10 July 72, and I don't remember anything about mosquitoes. Perhaps it's because my primary memory is the disappointment over being clouded out.

I believe Joe Rao was just down the road from us (and DID see totality, the dog <g>). I wonder if he remembers any mosquitoes.

Good luck with 2079! I'll be happy just to see 2045. Evan H. Zucker San Diego, California

I can't "forget the insects for now". Had we NOT been clouded out, I might not have been able to operate my cameras for fending off the hungry horde.



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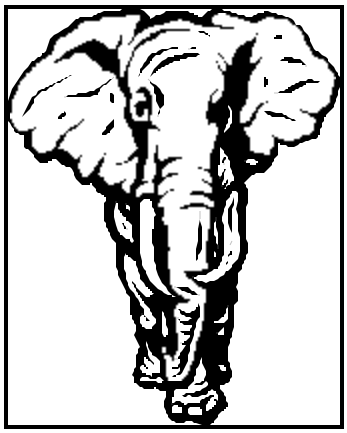


ZIMBABWE TALK IN BELGIUM

From: Koen Geukens <kgeuken@hotmail.com> To: <SOLARECLIPSES@AULA.COM> Sent: Wednesday, October 18, 2000 8:25 AM Subject: [SE] Zimbabwe-talk in Belgium (Antwerp)

Hello, SEC2000 is just finished but there is again something to do in Antwerp that can be of interest for eclips chasers in that area who want to go to Zimbabwe next year.
In Antwerp (Wolstraat 43) there is a pub called ViaVia. It is no ordinary pub, but it is a place where a lot of activities are organized around traveling. In Dutch it is called a "reiscafe", what can be translated as a "travel pub".
In november there are two evenings where a slideshow is presented about "an adventurous jeep-safari through southern Africa".
On 16 november it's all about Namibië, on 30 november it is about Botswana and Zimbabwe.
Each evening there are two sessions, one at 20h and one at 21h30. And it is free.

Regards, Koen

FLIGHTS TO AFRICA FROM EUROPE

From: Jeff Batten <jeff.batten@csun.edu> To: <solareclipses@AULA.COM> Sent: Wednesday, October 18, 2000 8:29 PM Subject: [SE] Eclipse charter flight to Africa from Europe

Hello, Does anyone have any information on the European charter flights to Africa for the day of the eclipse.

I would like to fly down to Africa from Europe, see the eclipse from the airport, and fly back the same day. Thanks Jeff

From: ccmlt <ccmlt@wanadoo.fr>
Hi Jeff, hi all, The scientific bookseller and publisher "Uranie" (france) has a good proposition for you. I don't have exact email url but maybe you can find it on the web.

The trip is one day in lusaka from paris. arrival june 20 , departure to paris june 21 after eclipse. Price is about 5000 FF (about 650 US$) with breakfast and lunch.

Librairie Uranie / Place Lucien Laroche / 56000 Vannes / Tél. : 02 97 47 09 97. France

best regards, Christophe, Les carnets de l'astronome ... Spécial éclipse 2001, http://www.astrosurf.com/carnets-astronome

From: Olivier Staiger <olivier.staiger@span.ch> Charter flight from Europe to Zambia round-trip: see the links at the bottom of my page : http://eclipse.span.ch/2001tse.htm, there is a planned fligth from Vienna Austria (and I have been told that they might stop in Munich en-route to catch more passengers, tbc). However I do not know if it will happen for sure. And the site is in German.

Olivier "Klipsi" Staiger http://eclipse.span.ch, mobile phone +41.79.449 4630 Geneva Switzerland, E-mail: olivier.staiger@span.ch, A member of the Outerspace Advertising Network, http://www.outerspaceads.net

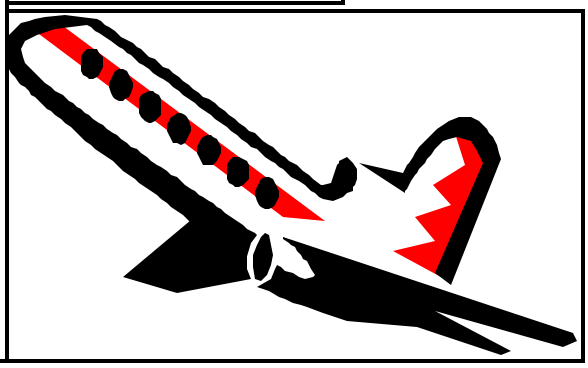
From: <Dorjenyma@aol.com>
I don't have exact email url but maybe you can find it on the web.> His e mail is : <ed.burillier.uranie@wanadoo.fr> dorje

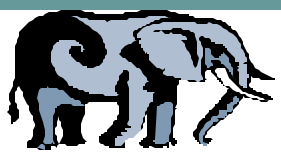
From: Manfred Rudolf <mrudolf@epo.org> Info about the 2-day eclipse quickie Olivier refers to below can be found at:

http://www.astronomie.at/asc/sofi01.htm

Good luck! Manfred Rudolf, Munich

"I would like to fly down to Africa from Europe, see the eclipse from the airport, and fly back the same day."





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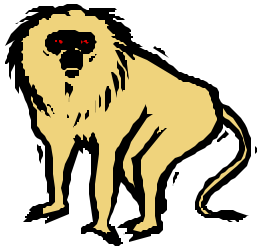

GLASSES FOR AFRICA

From: <podmore@compcentre.uz.ac.zw> To: <solareclipses@aula.com>Sent: Wednesday, October 04, 2000 5:40 PM Subject: [SE] "Glasses for Africa"

Just after the 1999 eclipse our local newspaper had a story about a French Charity called "Glasses for Africa" which was appealing for people to send in their unused or unwanted eclipse viewers, so that they could be sent out to Africa for 'our' eclipse(s).

But the article didn't give any contact address or email address or website.... Searching the web (using my favourite www.google.com) has found other websites which also ran the story but none give any names or contact addresses. [And of course, this charity may have a French name....]

Does anyone know more about it? Or can suggest where/who I could contact?

I know OXFAM in Belgium have had a huge campaign and collected 200 000 for Mocambique (which they have tested, individually!!) but I would lik eto contact the French group.

Can anyone help? Francis Podmore

PS My appeal in UK has resulted in about 100 000 being collected, most of which are here waiting to be distributed to schools as part of an eclipse information pack.... More details at the Antwerp conference (:))

BRADT TRAVEL GUIDE

From: Sheridan Williams <sheridan@clock-tower.com> To: <SOLARECLIPSES@AULA.COM> Sent: Tuesday, October 17, 2000 3:15 PM Subject: [SE] Bradt Travel Guide

This book was unavailable at the Conference much to people's disappointment. When I arrived home the conference pack was waiting for me!

It contained a special discount form for those attending the conference and you can obtain a copy for £8 instead of £10.95. I am not sure of the postage costs, but if you want a copy at the discounted rate, please contact Bradt Travel Guides by email on: info@bradt-travelguides.co> You MUST mention that you were a Conference delegate to get a copy at the discount rate. If you email a credit card number, and your street address, they will get you a copy immediately.

Wasn't the conference great? Sheridan

ECLIPSE TRIPS

From: <KCStarguy@aol.com> To: <eclipse@hydra.carleton.ca> Sent: Saturday, October 14, 2000 5:32 PM Subject: [eclipse] eclipse trips

I have started to list eclipse trips on my webpage

http://members.aol.com/kcstarguy/blacksun/eclipsetrips.htm

there is more information about the eclipse and ways to prepare for it at

http://members.aol.com/kcstarguy/blacksun/2001eclipse.htm

Dr. Eric Flescher, (KCStarguy@aol.com)- Eclipse 2001 KUNJANI Safaris tour host- http://www.kunjani.co.za/eclipse.htm, webmaster, Eric's Black Sun Eclipse website- http://members.aol.com/kcstarguy/blacksun/eclipse.htm -Editor, Blacksuneclipse newsletter - to subscribe send email to blacksuneclipse-subscribe@egroups.com

TO CHECK IF YOU NEED VISA'S

CHECK WITH YOUR LOCAL MEDICAL CENTER FOR VACINATIONS & MALARIA

SOLAR ECLIPSE NEWSLETTER SEC2000 RELATED WORDSEARCH

1. Anderson
2. Berghmans
3. Casado
4. Chou
5. Clette
6. Cugnon
7. Edmonds
8. Espenak
9. Fischer
10. Foing
11. Hiei
12. Hopper
13. Jones
14. Kalebwe
15. Koutchmy
16. Krupp
17. Lariviere
18. Makepeace
19. Maley
20. Meiser
21. Pasachoff
22. Podmore
23. Poitevin
24. Rusin
25. Staiger
26. Steele
27. Stephenson
28. Tiedt
29. Van Hellemont
30. Verbelen
31. Verwichte

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Submitted by: Laura Rose Appleton, (aged 11)

SOLAR ECLIPSE NEWSLETTER UPDATE ON MEMBERSHIP

Status after nearly 3 years: 283 subscribers out of 37 different countries.

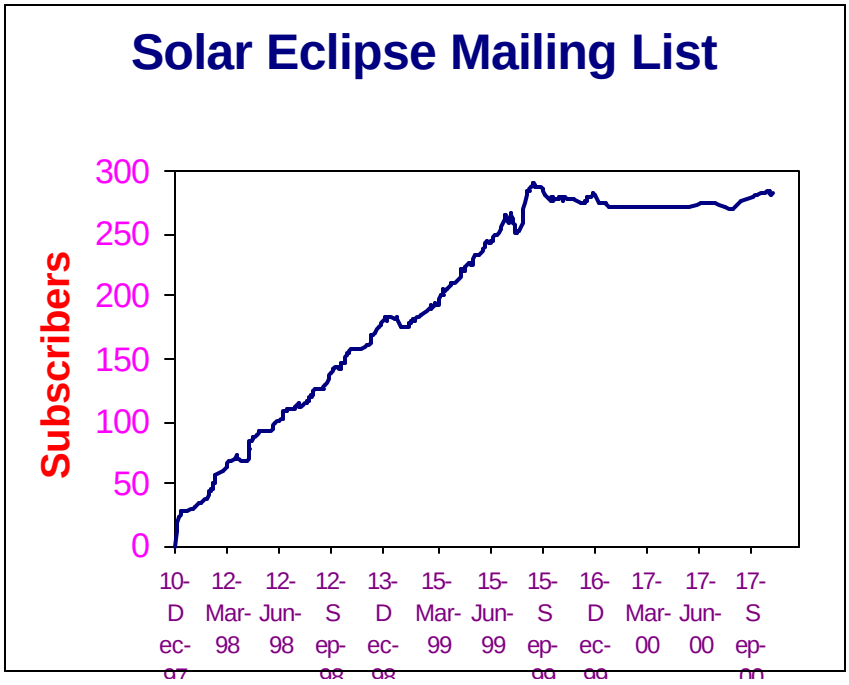
The Solar Eclipse Mailing List (SEML) is an electronic newsgroup dedicated to Solar Eclipses. Published by eclipse chaser Patrick Poitevin (patrick_poitevin@hotmail.com), it is a forum for discussing anything and everything about eclipses.

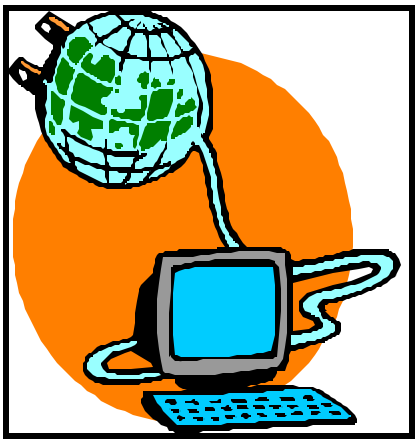
Thanks to the voluntary efforts of Jan Van Gestel of Geel, Belgium, the Solar Eclipse Mailing List (listserver) has been in operation since 10 December 1997. This is the first mailing list devoted solely to topic of solar eclipses on the internet.

You can send an e-mail message to the list server solareclipses@Aula.com, which will then forward your e-mail to all the subscribers on the list. Likewise, you'll receive e-mail messages that other subscribers send to the listserver. Only subscribers can send messages.

Main purpose of this Solar Eclipse Mailing List is to share information between all Solar Eclipse enthusiasts. Our objective is to permit and encourage world wide contacts among eclipse observers, calculators, scientists, ancient researchers, etc. It is a media where you can send questions, answers, items wanted, items for sales, announcements, reports, observations, discussions, information, introductions, etc. All topics should be related to Solar Eclipses. No commercial advertisements are allowed.

Country	Nbr	%	
USA	81	29	**37 Countries**
Belgium	32	11	
UK	27	10	
France	25	9	
Germany	20	7	
Netherlands	20	7	
Canada	8	3	
Spain	8	3	
Australia	6	2	
Denmark	4	1	
India	4	1	
Turkey	4	1	
Venezuela	4	1	
Austria	3	1	
Ireland	3	1	
South Africa	3	1	
Sweden	3	1	
Switzerland	3	1	
Zambia	3	1	
Colombia	2	1	
Poland	2	1	
Russia	2	1	
Thailand	2	1	
Argentina	1	0	
Bolivia	1	0	
Czech Republic	1	0	
Finland	1	0	
Hungary	1	0	
Italy	1	0	
Japan	1	0	
Korea	1	0	
Mexico	1	0	
Norway	1	0	
Romania	1	0	
Sri Lanka	1	0	
Ukraine	1	0	
Zimbabwe	1	0	
Total	**283**		





Joanne & Patrick

Solar Eclipse Mailing List

WE'RE ON THE WEB AT
http://www.Mr.Eclipse.com/SENL/SENLinde.htm

VISION STATEMENT

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

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SOLAR ECLIPSE NEWSLETTER UPDATE ON MEMBERSHIP

(Continued from page 25)

Do NOT send large files. For the convenience of the subscribers, there is an automatic filter on the size of the messages. Try to send plain text. If you wish to attach a file anyway, please make it in ASCII. The language is English. Unsubscribe during your holidays or do not use auto replies or confirmation of receipts.

All subscribers automatically give the permission to archive the messages being sent. If you decline, please write your copyright on the bottom of each message. The non-copyright messages are regarded as public domain and imply your silent consent to include such messaging in the archive. If you feel this is wrong or you have changed your mind, please contact the list owner. If you use information or messages from the SEML in any correspondence, article, paper or lecture, please mention the SEML and how to subscribe.

It is never the intention to announce the addresses of the members. If you are looking for somebody, write a message to the list owner and the contact person will be informed. A list of the subscribers is not available to the members. In this case we avoid junk mailers. Again: Only subscribers can send messages to the Solar Eclipse Mailing List.

The Solar Eclipse Mailing List is maintained by the list owner Patrick Poitevin (patrick_poitevin@hotmail.com). It is the right of the list owner to put a subscriber on READ ONLY or even abandon complete from the list.

See the front page of this Solar Eclipse Newsletter (SENL) for details on how to subscribe for the SEML.

Please see the graph of the SEML status over nearly 3 years. As you will see, just before the 11 August 1999 eclipse, subscribers unsubscribed, while just after the event, re-subscribe. The maximum number of subscribers was one month after this eclipse, with 291 subscribers. Due to the Solar Eclipse Conference in Antwerp, Belgium (October 14 – 15, 2000), the number of subscribers increased again, but overall the number of SEML subscribers is quite stable.