SOLAR ECLIPSE NEWSLETTER

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.

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.

solareclipsewebpages@btopenworld.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.

The sole Newsletter dedicated to Solar Eclipses

Dear SENL readers,

Another Newsletter to read. It took a little longer to finalize this issue. The conference of last week absorbed some time and of course the Newsletter had to be finished after. More about the conference (TD2003) next month, but we can state that it was a truly success. What a quality of presentations! Thank you All!!!!

In the meanwhile we started with a new Mailing List. The so called SEWP mailing list. I started 10 December 1997 with the Solar Eclipse Mailing List (SEML). I had so many briefings and postings to private addresses, professional and amateur eclipse enthusiasts, that there was a need to start with the SEML. Now, after 5 years, it seems the SEML is so big. We have over 300 subscribers and we have messages up to 10 a day. It is a live READ and WRITE mailing list. In the meanwhile, I kept sending postings to those whom did not want to have the daily and live messages. Such as the SECalendar, updates on the SEWeb-Pages, the SENewsletter, and the latest status on SEConferences. I had over 150 contacts for this as well and to make sure the addresses can not be used or mis-used, I started the SEWP Mailing List. It is a READ only list and there is maximum one message a week. If you are subscribed to the SEML, there is no need to subscribe as well to the SEWP. All messages of the SEWP will appear as well on the SEML. Write us an e-mail if you want to add your e-mail address to the list. Simple as that.

I have also direct contact to the server from now on. It means that all postings can be tracked. Meaning Spam, but also those not subscribed and try to post to the SEML, full mailboxes, un-used mailboxes, help queries, etc.
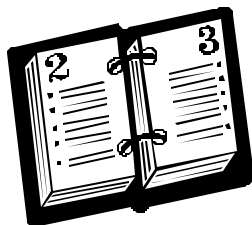
In the meanwhile we prepared our trips to Gibraltar for the Mercury Transit, and the Annular Eclipse in Scotland. We'll keep you posted.

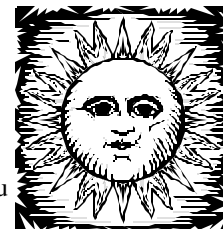And ... keep those solar eclipse related messages coming ...   Jo & PP

Photo ©2002 Michael Gill

SECalendar

February 2003

Dear All,

Please find herewith the solar eclipse calendar (SECalendar) for February. If you have any additional information, queries or remarks, please drop us a mail.

For the whole Solar Eclipse Calendar, see our Solar Eclipse WebPages at

http://solareclipsewebpages.users.btopenworld.com

February 02, 1907 Death of Dmitri Ivanovich Mendeleeff (1834-1907), Russian. Uses a balloon to ascend above the cloud cover to an altitude of 11.500 feet (3.5 km) to observe an eclipse in Russia. (Ref Rc 1999)

February 02, 1998 ACE (US) starts observation of solarwind research. Ref. DD 2/99.

February 02, 2002 The E-Team, Joanne and Patrick Poitevin got married.

February 03, 1965 Launch of OSO 2 (US). Studied solar flames and influence of it on earth. Ref. DD 2/99.

February 05, -0001 (2 BC) A Partial Solar Eclipse on Feb. 5 of the year 2 BC in Chang-An, the capital of the Han Dynasty in China, was seen as a good omen for Confucianist Wang Mang, who would soon wrest control of the government from the reigning emperor. Ref. Rudi Thomsen, Ambition and Confucianism, A Biography of Wang Mang. And F.R. Stephenson, Atlas of Historical Eclipse Maps, East Asia 1500 BC to AD 1900. (Ref. ENB10)

February 05, 1934 Minor planet (3707) Schröter 1934 CC. Discovered 1934 February 5 by K. Reinmuth at Heidelberg. Named in honor of Egon Horst Schröter (1928-   ), German solar astronomer and director of the Freiburg Kiepenheuer-Institut, on the occasion of his retirement. In 1976 he succeeded K.-O. Kiepenheuer at the Freiburg Institute for Solar Physics. An important achievement during his directorship consisted in negotiations about the erection of two new tower telescopes at Teide Observatory on Tenerife, Canary Islands. Schröter served as president of the Astronomische Gesellschaft from 1987 to 1990. In 1978 he became a member of the German Committee in COSPAR. (M 22499) Name proposed and citation prepared by J. Schubart, endorsed by G. Klare and L. D. Schmadel. Dictionary of Minor Planet Names - ISBN 3-540-14814-0 - Copyright © 1999 by Springer-Verlag Berlin Heidelberg

February 05, 2002 Solar explorer successfully launched by Pegasus rocket. The L-1011 aircraft "Stargazer" takes off from Cape Canaveral to launch the Pegasus rocket with HESSI. Bryan Baldwin, Orbital Sciences' Pegasus launch vehicle program manager, said it was the first time a Pegasus count-down had been aborted only to have the countdown reset and carrier jet circle around to launch the rocket during a second try on the same day. Ref SENL 0302.

February 06, 1612 Death of Christophorus Clavius (Christoph Klau), German mathematician and astronomer. He observed the total solar eclipse of 1567 and observed the corona. Born in 1537. Ref. DD 2/99

February 07, 1824 Birth of William Huggins, British amateur astronomer. He built his own observatory on Tulse Hill, 8 km out of London. He discovered emission lines of hydrogen. In 1875 he observed together with his wife Margaret L. Murray. He studied further the spectra of planets and the solar corona, where he showed the hydrogen lines as well in 1876. Died in 1910. Ref. DD 2/99.

February 07, 1834 Birth of Dmitri Ivanovich Mendeleeff (1834-1907), Rusian. Uses a balloon to ascend above the cloud cover to an altitude of 11.500 feet (3.5 km) to observe an eclipse in Russia. In the Royal Society they mention as well 7 as 8 February 1834. (Ref. Rc 1999).

February 08, 1984 Minor Planet (3315) Chant 1984 CZ. Discovered 1984 February 8 by E. Bowell at Anderson Mesa. Named in

SECalendar

memory of Clarence Augustus Chant (1865-1956), generally referred to as the "father of Canadian astronomy". A renowned teacher, Chant organized the Astronomy Department of the University of Toronto and built up the Royal Astronomical Society of Canada. He participated in five solar eclipse expeditions, the most important being the one he led to Australia in 1922 to test Einstein's {see planet (2001)} prediction of the deflection of starlight by a massive body. (M 12210) Name proposed by the discoverer following a suggestion by P. M. Millman. Chant is also honored by a lunar crater. Dictionary of Minor Planet Names - ISBN 3-540-14814-0 - Copyright © 1999 by Springer-Verlag Berlin Heidelberg

February 08, 1994 Minor Planet (7436) Kuroiwa 1994 CB2. Discovered 1994 February 8 by K. Endate and K. Watanabe at Kitami. Named in memory of Goro Kuroiwa (1912-1990), Japanese astronomer and observer of variable stars. A student in the department of astronomy at the University of Tokyo on the occasion of the total solar eclipse on 1936 June 19, he independently discovered the nova CP Lac, along with Kazuaki Gomi {see planet (7035)}. While serving with the Japanese army in 1942 he independently discovered the nova CP Pup. He represented Japan in the geodetic survey program using photoelectric observations of lunar occultations, carried out from 1950 to the 1960s by the U.S. Army Map Service Far East. (M 34343) Dictionary of Minor Planet Names - ISBN 3-540-14814-0 - Copyright © 1999 by Springer-Verlag Berlin Heidelberg

February 08, 2003 Next and second Totality Day will be held in the Open University of Milton Keynes, England. Organizers Joanne Edmonds and Patrick Poitevin welcome lectures, posters or trade offers for TD2003.

February 11, 1868 Death of Jean Bernard Leon Foucault (1819-1868), French physicist. Photographed the sun and measured the speed of light together with (Armand) Hippolyte Louis Fizeau (1819-1896). (Ref. Rc 1999)

February 11, 1988 Minor planet (6001) Thales 1988 CP2. Discovered 1988 February 11 by E. W. Elst at La Silla. Named for the famous Greek philosopher Thales of Miletus (c.625-547 B.C.). None of Thales' writings has come down to us, but from Aristoteles {see planet (6123)} we know that he was the first to suggest a single substratum (water) for the Universe. The correct prediction of the solar eclipse of -584 May 28 contributed considerably to his reputation as an astronomer. Thales' significance, however, lies in the fact that he attempted to explain natural phenomena by causes within nature itself, rather than by caprices of anthropomorphic gods. He must be credited with at least five important geometrical theorems. (M 24766) Thales is also honored by a lunar crater. Dictionary of Minor Planet Names - ISBN 3-540-14814-0 - Copyright © 1999 by Springer-Verlag Berlin Heidelberg

February 12, 1431 "In (the month of) Jumada al-Ukhra, the astrologers warned that the Sun would be eclipsed, and in Cairo there were callings to the people that they should pray and do good deeds. However, the eclipse did not occur and those who gave the warnings were denounced. Then news arrived from al-Andalus (Islamic Spain) of the occurrence of an eclipse there covering all of the Sun's body except one-eight of it. That was after midday on the 28th of the month." From: Al-Maqrizi, al-Saluk fi Ma'rifat Duwal al-Muluk. " In (the month of) Jumada al-Ula it was known that the calendar experts agreed that the Sun was to be eclipsed on the 28th of the month after the Zawal (i.e. after the Sun had crossed the meridian). The Sultan and the people were prepared for it and were watching the Sun until it set but nothing of it had changed at all." From: Al-'Asqalani, INBA' AL-Ghumr bi 'Bna' al-'Umr. These two quotations refer to total solar eclipse, expected in Cairo, but visible in Spain, of 12 February 1431. Quoted in Historical Eclipses and Earth's Rotation, by F Richard Stephenson, Cambridge University Press, 1997, page 446.

February 12, 1431 "On February 12 at about the 21st or 22nd hour, the Sun was completely obscured and in front of the Sun was placed a black circle like a little wheel. It became as dark as night and the sky revealed the stars. The birds went to roost as they usually do at night. Everyone was feeling ill at ease as a result of this event. It began half an hour before the Sun was covered over. It gradually lost its light even to the hour stated above. . ." Refers to a total solar eclipse in Perugia, Italy, of 12 February 1431. From: Antonio dei Veghi, Diario dall'anno 1423 al 1491. Quoted in Historical Eclipses and Earth's Rotation, by F Richard Stephenson, Cambridge University Press, 1997, page 408.

February 12, 1831 The black slave preacher Nat Turner witnessed an annular solar eclipse. It was a vision from God of a "black angel" overtaking a "white angel". The fomenting slave rebellion gained impetus and on August 13 Turner saw another spectacle - a naked eye sunspot. The rebellion began on August 21 but was quickly crushed and Turner hanged.

February 12, 1893 Marcel Minnaert (1893 - 1970) studied biology at the University of Ghent in his native Belgium and physics at the University of Leiden in the Netherlands. Minnaert published a collection of poems related to astronomy and popular books on light and color and physics of the open air. He gave a lot of explanations in regard of effects with solar eclipses.

SECalendar

February 12, 2002 HESSI is opera-tional. It detected its first flare, a C2 flare early on Tuesday morning, February 12, starting at 0214 UT. The spacecraft is balanced and spinning at 14 rpm about an axis within about 0.1 degrees of the Solar As-pect System (SAS) axis. We should get accurate aspect in-formation once the data from the SAS and the Roll Angle System are fully analyzed.

February 13, 1988 Minor Planet (4705) Secchi 1988 CK. Discovered 1988 February 13 at the Osservatorio San Vittore at Bo-logna. Named in memory of Angelo Secchi (1818-1878), Italian astronomer, director of the observatory of the Collegio Romano in Rome from 1848 to 1878. Famous for his work on stellar spectroscopy, he made the first spectroscopic survey of the heavens, and his classification scheme divided the spectra of the stars into four groups. Secchi also made an extensive study of solar phenomena and was a co-founder of the Società degli Spettroscopisti Italiani, now the Società Astronomica Ital-iana. (M 20160) Secchi is also honored by craters on Mars and on the Moon. Dictionary of Minor Planet Names - ISBN 3-540-14814-0 - Copyright © 1999 by Springer-Verlag Berlin Heidelberg

February 14, 1779 Death of James Cook (1728-1779), British circumnavigator and one of the first scientific navigators. He observed the Solar Eclipse of 1766 August 5 from Newfoundland and in 1769 measured the transit of Venus from Tahiti. (Ref. Rc 1999)

February 14, 1953 Last solar eclipse on Valentine's Day. This century was blessed with Valentine's Eclipses. There was a partial solar eclipse in 1953, a total solar eclipse in 1934 and an annular eclipse in 1915. Unfortunately, we do have to wait till 2306 and 2325 for the next Valentine Solar eclipses. Both will be Total Solar Eclipses.

February 14, 1980 Launch of Solar Maximum Mission, American Solar mission which achieved important results.

February 14, 1996 SOHO, European Solar mission reaches observation place: lagrangepoint L1.

February 14, 2325 A region near 29 degrees East and 23.5 degrees North, in the dessert of southern Egypt, will see five total solar eclipses in a span of 31.8 years during the 24 th century: 14 February 2325, 20 June 2327, 5 February 2334, 31 July 2353, 23 November 2356. Ref. JM 9/99.

February 15, 0538 The first solar eclipse recorded in Britain, described in the Anglo-Saxon Chronicle; it occurred four years after the death of Cerdic, first king of the West Saxons. The Sun was two-thirds eclipsed in London.

February 15, 1564 Birth of Galileo Galilee in Pisa. During a short stop of his parents in Pisa, Galileo was born. His father, Florentine Vincenso Galilee was musician. He died in 1642 on 8 January. (ref. De jonge Galilei, Davidfonds nr. 341)

February 15, 1858 Birth of W. Pickering, American astronomer. Discovered satellite of Saturn Phoebe. Predicted in 1909 the existence of Pluto, observed als o the Moon, Mars and Solar Eclipses.

February 15, 1961 Dr. Menzel notes that television coverage was excellent, and almost everyone in Europe could view the eclipse in one way or another. It was Galileo's birthday, and a 45 minute television program reviewed his contributions and those of other Italian and European scientists toward our present understanding of the sun. (ref. SaT 4/1961p191)

February 15, 1961 Russians studied for the first time the solar corona and upper-atmosphere phenomena during an eclipse from high-altitude stabilized platforms. On eclipse day, about noon, Russian scientists launched a series of rockets from an undisclosed base in the zone of totality. (ref. SaT 6/1961p328)

February 15, 1961 The first attempt to show a total solar eclipse on television from several stations along the track was made by the BBC at the eclipse of February 15, 1961. The track passed from France through Italy and former Yugoslavia, and thence into Russia. The attempt was successful and totality was shown from France, Italy and Yugoslavia. In eastern Yugo-slavia, the place Nis, a TV camera was placed at 4900 foot. Patrick Moore failed to broadcast the event. (ref. SaT 4/61 p 203)

February 15, 1961 The German astronomer K. O. Kiepenheuer, who was director of the Fraunhofer Institute at Freiburg, went to Laigueglia, Italy, a little village not far from Imperia. He had 3 small cameras for studying the structure of the inner corona, which he wished to correlate with surface features on the sun. His party had a dictaphone on which to record their impres-

SECalendar

sions, but during totality the observers were so preoccupied they forgot to talk! Later, when the recording was played back, it had one startling feature: Birds twittered distinctly in the background up to the beginning of totality, when these sounds stopped suddenly. Immediately after totality, the birds became active again. (ref. SaT 5/1961p264)

February 15, 1961 Widely viewed through southern Europe. Observed Total Eclipse by W. Carton, J. Meeus, Partial phase observed by F. Verbelen. F. Schmeidler (Germany) tried again in Italy on deflection of starlight (relativity tests). Sun was too low. Tried in earlier and later Eclipses. Poland observed during Part (94%) with reaction of bees, masse, moths, butterflies (confirmation of earlier Eclipse observations) by Wojtusiak and Majlert.

February 15, 1973 Launch of Prognoz 3, Russian mission for research of Solar and röntgenrays.

February 16, 0538 "The sun darkened on February 16th from dawn until nine in the morning." Refers to a solar eclipse in AD 538. From: The Anglo Saxon Chronicles translated and collated by Anne Savage, CLB Publishing Ltd.   Ref FE 01/01

February 16, 1086 "On the sixth day of the month of February between the sixth and ninth hours the Sun was obscured for the space of three hours; it was so great that any people who were working indoors could only continue if in the meantime they lit lamps. Indeed some people went from house to house to get lanterns or torches. Many were terrified." Refers to a solar eclipse of 16 February 1086. Goffredo Malaterra, Chronicle of the Norman rule in Sicily and southern Italy during the 11th century. Quoted in Encyclopedia Britannica CD 98.

February 16, 1980 The only cricket match to have been interrupted by an Eclipse of the Sun was the Jubilee test between India and England on February 16, 1980. A Solar Eclipse was due that afternoon, and the Indian Board, in agreement with the English team, did not want the responsibility of a crowd of 50.000 damaging their eyes by looking at the Sun when the Eclipse began. The Test Match continued on the next morning.

February 18, 1977 Minor planet (5082) Nihonsyoki 1977 DN4. Discovered 1977 February 18 by H. Kosai and K. Hurukawa at Kiso. Named for the chronicles of Japan from the earliest times to 697, written in Chinese and completed in 720. It was the first historical record compiled by the Japanese government and contained records of various astronomical phenomena, such as appearances of seven comets (including the 684 return of P/Halley), 13 solar eclipses (e.g. in 628), occultations of stars and planetary phenomena. It was translated into English by W. G. Aston and published under the title of Nihongi. {See also the citation for planet (5454)}. (M 22506) Dictionary of Minor Planet Names - ISBN 3-540-14814-0 - Copyright © 1999 by Springer-Verlag Berlin Heidelberg

February 19, 1993 Minor planet (8387) Fujimori 1993 DO. Discovered 1993 February 19 by T. Seki at Geisei. Named in honor of Kenichi Fujimori (1934-   ), an amateur astronomer who observes sunspots, faculae and prominences. A formal observer designated by the Sunspot Index Data Center, he served as director of the solar section of the Oriental Astronomical Association from 1971 to 1978. (M 33388) Name proposed by the discoverer following a suggestion by T. Sato and A. Fujii. Dictionary of Minor Planet Names - ISBN 3-540-14814-0 - Copyright © 1999 by Springer-Verlag Berlin Heidelberg

February 20, 1990 Minor Planet (5403) Takachiho 1990 DM. Discovered 1990 February 20 by Y. Kushida and M. Inoue at Yatsugatake. Named for the home town of the wife of the second discoverer, Takachiho is located at the center of Miyazaki prefecture in Kyusyu, some 900 km southwest of Tokyo, and surrounded by mountains. Takachiho is famous for its legends and myths on the root of gods. The most famous is the legend of Amano-Iwato of Amaterasu-Ohmikami (the god of the sun). This story has been handed down by Yokagura (sacred music and dance) as performed by farmers. (M 22250) Dictionary of Minor Planet Names - ISBN 3-540-14814-0 - Copyright © 1999 by Springer-Verlag Berlin Heidelberg

February 21, 1938 George Ellery Hale died in Pasadena. Principally he was an astrophysicist and he distinguished himself in the study of solar spectra and sunspots. He developed a number of important instruments for the study of solar and stellar spectra, including the spectroheliograph and the spectrahelioscope. Ten years after his death, his greatest dream, the 200 inch reflecting telescope on Mount Palomar was completed. Born in Chicago June 29, 1868. Ref. The Bibliographical Dictionary of Scientists, edited by David Abbott, 1994.

February 22, 1824 Birth of Pierre Jules Cesar Janssen (1824-1907, France), French astronomer and physic. Studied the

SECalendar

Sun. Co-discoverer of the lines of Helium in the Sun, that time on Earth not yet discovered. Observed solar eclipses of which one from Algeria when he escaped Paris with a balloon during the war. (ref Rc 1999)

February 22, 1960 Death of Samuel A. Mitchell, American astronomer of the University of Virginia. Observed numerous solar eclipses. Born in 1874.

February 23, 1938 Minor planet 1722 Goffin 1938 EG. Minor Planet discovered 1938 February 23 by E. Delporte at Ukkel, Belgium. Named in honor of the Belgian amateur astronomer Edwin Goffin, who has made extensive computations involving minor planet orbits. Goffin chased quite a few eclipses as well.

February 24, 0453 "Even the Sun appeared hideous, so that scarcely a third part of it gave light, I believe on account of such deeds of wickedness and the shedding of innocent blood." Gregorius Turonensis Refers to solar eclipse of 24 February AD 453, when Attila the Hun was raiding Italy. Ref FE 01/01

February 24, 1938 Minor planet 1552 Bessel 1938 DE. Minor Planet discovered 1938, February 24 by Y. Vaïsälä at Turku. Named in honor of the eminent German astronomer Friedrich Wilhelm Bessel (1784-1846). (Ref. Sc 1999)

February 24, 1996 Launch of Polar, American satellite. Studied Solarwind in polar orbit around the Earth.

February 25, 1598 "There is a tradition that some persons in the north lost their way in the time of this eclipse, and perished in the snow." Refers to the total solar eclipse of 25 February 1598. From: Maclaurin, Philosophical Transactions, vol xi, p193, 1737. Quoted in UK Solar Eclipses from Year 1 by Williams.

February 26, 1786 Birth of Dominique Francois Jean Arago (1786-1853), French astronomer. Studied solar eclipse of 8 July 1842 and noted it exists of gas. (Ref. Rc 1999)

February 26, 1842 Birth of Camille Nicolas Flammarion in Montigny le Roi in Hauter Marne. He died in Juvsy sur Orge on 3 June 1925. Ref. The Bibliographical Dictionary of Scientists, edited by David Abbott, 1994.

February 26, 1878 Death of Angelo Secchi (1818-1878), Italian astronomer. Photographed solar eclipse of 18 July 1860. Studied the sun and sunspots. (Ref. Rc 1999)

February 26, 1979 Total Solar Eclipse in Pacific Northwest. Passes through parts of Washington, Oregon, Montana and Manitoba. Observed total by G. Vandenbulcke (Gerard Deman?). Picture Bryan Brewer/Eclipse 1991 p. 37. See graph brightness from jet in Total Eclipse's of the Sun/J. Zirker 1995 p. 71+72 and p. 121+125 on F corona and interplanetary dust.

February 27, 1897 Birth of Bernard Ferdinand Lyot in Paris, French astronomer. Studied polarization of moonlight en planets. Later mainly Solar research. Constructed chronograph and the 'lyot-filter' or monochromatic polarizing filter.

February 27, 1906 Death of Samuel Pierpont Langley (1834-1906), American astronomer. Founded SAO (observatory), measured the solar constant, studied aerodynamics. The Royal Society does also mention 22 February 1906. (Ref. Rc 1999)

February 29, -0356 (357 BC) Last total solar eclipse on February 29. This 5 minutes total solar eclipse started off in the Atlantic (near the NE coast of South America), through Africa and ending in Asia. Partial solar eclipse on February 29, 128. It takes only 76 years before we have a next solar eclipse on this date, namely in 184. This is again a partial solar eclipse. This eclipse of 128 was visible in South America and Africa. February 29, 0184 Partial solar eclipse on February 29. The eclipse of 184 was visible in Europe, Eurasia and North Africa. February 29, 648 Annular eclipse on February 29 in the Antarctic and the coast of Australia. This is 464 years after previous eclipse on February 29 in 184. February 29, 1188 Last solar eclipse on February 29. Between 0 and 3000, there are 6 solar eclipses on February 29. This eclipse was an annular eclipse, visible in Australia, Papua New Guinea and Hawaii. It will be 1228 before there is another solar eclipse on February 29, namely in 2416.

SECalendar

February 29, 2416 Next solar eclipse on February 29. February 29, 2872 Last solar eclipse on February 29, before 3000. This partial solar eclipse will be visible in Alaska and Siberia.

February 29, 1908 Dutch scientists produces for the first time helium. Ref. DD 3/99.

and ... keep those solar eclipse related messages coming ...

Best regards, Patrick and Joanne

solareclipsewebpages@btopenworld.com
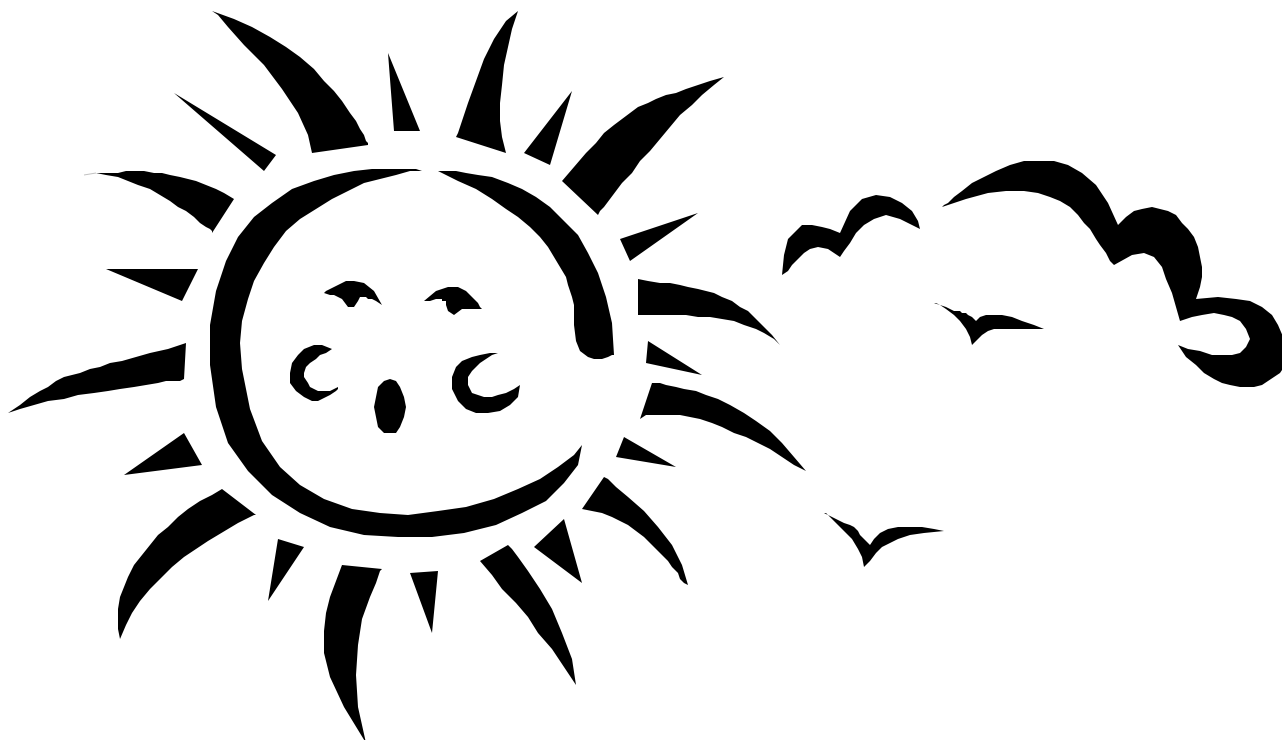http://solareclipsewebpages.users.btopenworld.com

SECalendar for February - calendar

From: Robert B Slobins To: "'SOLARECLIPSES@AULA.COM'" <SOLARECLIPSES@aula.com> Date: Thu, 30 Jan 2003 02:30:25

Patrick and Joanne: When you give dates before 1752 or 1582, are they Julian or corrected to Gregorian dates? cheers/ rbs

SEDates

TD2003

From: Brian Whatcott To: HASTRO-L@LISTSERV.WVU.EDU Date: Sun, 05 Jan

Last time I visited Walton Hall (years ago) I wandered over to the nearby Cranfield College of Technology, where the Road Research Lab was (is?) situated.

I was hospitably received there, and put up in the student quarters overnight at moderate cost. The next day, I saw a full blown road traffic experiment in progress on a portion of the former airfield site.

Overseas visitors may be interested to be reminded that there is a tradition of hospitality to visiting scholars at British universities, which contrasts with the more commercial American college interaction. Brian W

From: Barrie W. Jones To: SOLARECLIPSES <SOLARECLIPSES@AULA.COM> Date: Sun, 05 Jan 2003 19:05:29

A few people might be flying to Luton Airport to get to the Open University for Totality Day. This is the closest international/national airport to the OU, though it has rather few airlines and flights using it. There is a regular coach service from the airport to the railway station at Milton Keynes, run by the train operator Virgin. (From the station get a taxi to the Walton Hall campus of the OU.) The time-table is as follows.

MONDAY TO SATURDAY
Luton	Milton Keynes	
0605	0700	
0705	0800	
0810	0905	hourly
2010	2105	
2110	2205	(not Sat)

MK	Luton	
0705	0800	hourly
2105	2200	
2205	2300	(not Sat)

SUNDAY
MK	Luton	
0920	1015	hourly
2120	2215	

Barrie W Jones

TD2003 Countdown

Dear All, One month to go!!! Find below the preliminary program for the second edition of Totality Day which will take place on Saturday 8 February 2003 in the Open University of Milton Keynes (UK).

As you will notice, there is still a space if you want to give a presentation, have a paper or a poster. Please send us an e-mail with the details. Thank you. If you want to trade, or have posters, leaflets or any thing else solar eclipse related, please contact us at solareclipsewebpages@btopenworld.com

For accommodation and maps to get to the Open University, please visit our webpages at:

http://solareclipsewebpages.users.btopenworld.com/TD_files/TD2003.html

Check the same Solar Eclipse WebPages for the posters and as well those whom have sponsored in terms of publicity or announcements. We did not have any financial support, and that is also the reason we ask for a £3 entrance. This is a private organisation without any link to organisation or institute.

TOTALITY DAY 2 0 0 3 - (PRELIMINARY) PROGRAM

08h00 Doors open. Entrance Main Reception of Berrill Building (http://www.open.ac.uk/)

10h00 Opening TD2003 by Prof. Dr. Barrie W. Jones (UK)
10h05 Eclipse Calculator On-Line by Chris O'Byrne (Ireland)
10h20 The Great Escape - beating the clouds in Limpopo by Daniel Fischer (Germany)

10h50 Break

11h30 Recording Shadow Bands on video by Eric Strach (UK)
11h50 The Total Solar Eclipse from Singelele Camp, SA by Joanne Poitevin (UK)

12h00 Lunch (Berrill Café is open for sandwiches, drinks or pack-lunch)

14h00 tbd
14h10 The 2002 TSE in Botswana by Barrie W. Jones (UK)
14h20 The 2003 ASE and visibility from Scottish locations by Sheridan Williams (UK)
15h00 Measuring the Diameter of the Sun during Solar Eclipses by Eric Jones (UK)   **.../...**

SEDates

TD2003 Totality Day 8 February - Final Programme

Find below the final programme for the second edition of Totality Day which will take place on Saturday 8 February 2003 in the Open University of Milton Keynes (UK).

If you want to trade, have posters, leaflets or any thing else solar eclipse related, please contact us at solareclipsewebpages@btopenworld.com

For accommodation and maps to get to the Open University, please visit our webpages at: http://solareclipsewebpages.users. btopenworld.com/TD_files/TD2003.html

Check the same Solar Eclipse WebPages for the posters and as well those whom have sponsored in terms of publicity or announcements. We did not have any financial support, and that is also the reason we ask for a £3 entrance. This is a private organisation without any link to organisation or institute.

08h00 Doors open. Entrance Main Reception of Berrill Building

FIRST CONTACT

10h00 Opening Totality Day 2003 by Prof. Dr. Barrie W. Jones (UK)
10h05 Eclipse Calculator On-Line by Chris O'Byrne (Ireland)
10h20 The Great Escape - beating the clouds in Limpopo by Daniel Fischer (Germany)
10h50 Break

SECOND CONTACT

11h30 Recording Shadow Bands on Video by Eric Strach (UK)
11h40 The shady side of the Moon by David Forshaw (UK)
11h55 The Total Solar Eclipse from Singelele Camp, South Africa by Joanne Poitevin (UK)

TOTALITY

12h00 Lunch (Berrill Café is open for sandwiches, drinks or pack-lunch)

THIRD CONTACT

14h00 The eclipse observed by Olivier "Klipsi" Staiger (Switzerland)
14h10 The 2002 Total Solar Eclipse in Botswana by Prof. Dr. Barrie W. Jones (UK)
14h20 The 2003 Annular Solar Eclipse and visibility from Scottish locations by Sheridan Williams (UK)
15h00 Measuring the Diameter of the Sun during Solar Eclipses by Dr. Eric Jones (UK)
15h20 Total Solar Eclipse 2002 as seen from the Australian Outback by Derek Hatch and Mike Foulkes (UK)
15h40 Break

FOURTH CONTACT

16h10 Solar and Background Fluxes in the Visible and Infra Red by Dr. Alan Ridgeley and Dr. Brian Sheen (UK)
16h30 The Messina December 4, 2002 white-light corona by Dr. Voyto Rusin (Slovakia) and Prof. Dr. Miloslav Druckmuller (The Czech Republic)
17h10 TV Reports on the Eclipse by Andrew and Val White (UK)
17h25 Video of the Eclipse taken at Woomera, Australia by Ted Thurgur (UK)
17h30 Posters
17h55 Closing Totality Day 2003 by Joanne and Patrick Poitevin (UK)
20h00 Doors closed
See you on the 8th February. PS: For those who want to combine with Astrofest in London on Friday 7th February, please let us know so we can meet. Best regards, Patrick and Joanne Poitevin

SEScannings

SENL January 2003

Dear all, Another Solar Eclipse Newsletter (SENL) has been issued. Please find the January 2003 issue of the SENL at

http://solareclipsewebpages.users.btopenworld.com/ SENL_files/Senl200301.PDF

See the latest SENL and also the complete SENL Index since November 1996 at

http://solareclipsewebpages.users.btopenworld.com

SENL December 2002 at

http://solareclipsewebpages.users.btopenworld.com/ SENL_files/Senl200212.PDF

SENL January 2003 Special (Total Solar Eclipse 4 December 2002) in 3 parts at

http://solareclipsewebpages.users.btopenworld.com/ SENL_files/Senl200301SpecialA.PDF
http://solareclipsewebpages.users.btopenworld.com/ SENL_files/Senl200301SpecialB.PDF
http://solareclipsewebpages.users.btopenworld.com/ SENL_files/Senl200301SpecialC.PDF

The SENL will be soon on the WebPages of Fred Espenak/ NASA. See

http://sunearth.gsfc.nasa.gov/eclipse/SENL/   and the index at

http://www.mreclipse.com/SENL/SENLinde.htm   with example: SENL0011.pdf

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

Comments and contributions are welcome at solareclipsewebpages@btopenworld.com

And ... keep those solar eclipse related messages coming ...

Best Regards, Patick and Joanne Poitevin

SEML Status

Dear All, After more then 5 years, our Solar Eclipse Mailing List (SEML) hosts still over 300 subscribers. The number of subscribers dropped with a few since the past total solar eclipse in December 2002. A normal trend after solar eclipse expeditions anyway. But a little more due to the less popular 2003 solar eclipses and the non-central eclipse year 2004.

Please see the details of the SEML Status on our Solar Eclipse WebPages at

http://solareclipsewebpages.users.btopenworld.com

Country	Number	Percent	
USA	94	30	%
Belgium	26	8	%
UK	26	8	%
France	22	7	%
The Netherlands	22	7	%
Germany	19	6	%
Canada	14	4	%
Australia	13	4	%
South Africa	8	3	%
Italy	6	2	%
Spain	6	2	%
India	4	1	%
Ireland	4	1	%
Sweden	4	1	%
Austria	3	1	%
Denmark	3	1	%
Switzerland	3	1	%
Venezuela	3	1	%
Japan	2	1	%
Mexico	2	1	%
Poland	2	1	%
Turkey	2	1	%
Argentina	1	0	%
Costa Rica	1	0	%
Czech Republic	1	0	%
Finland	1	0	%
Hong Kong	1	0	%
Hungary	1	0	%
Iceland	1	0	%
Iran	1	0	%
Korea	1	0	%
Malaysia	1	0	%
Mauritius	1	0	%
Nigeria	1	0	%
Norway	1	0	%
Qatar	1	0	%

SEScannings

Romania	1	0	%
Russia	1	0	%
Sri Lanka	1	0	%
Thailand	1	0	%
Zimbabwe	1	0	%

41 countries   307   Subscribers

Best regards, Patrick

SENL January 2003 NOW ONLINE!

From: Fred Espenak To: SOLARECLIPSES@AULA.COM Date: Mon, 06 Jan 2003 21:25:11

Joanne Poitevin has prepared a new issue of the SENL (Solar Eclipse Newsletter) for the month of January 2003.

The details are:

SENL - 2003 January (1.2 MB pdf file*)

Joanne and Patrick have also prepared a special 3-part newsletter covering the recent total solar eclipse of 2002 December 4:

SENL - 2002 Total Eclipse Special - Part A (0.9 MB pdf file*)
SENL - 2002 Total Eclipse Special - Part B (0.9 MB pdf file*)
SENL - 2002 Total Eclipse Special - Part C (0.9 MB pdf file*)

These issues may be downloaded via the SENL index page of MrEclipse.com:

http://www.mreclipse.com/SENL/SENLinde.htm

Other recent issues currently linked from the above page include:

SENL - January 2002 - Part A (0.7 MB pdf file*)
SENL - January 2002 - Part B (1.3 MB pdf file*)
SENL - February 2002 (1.2 MB pdf file*)
SENL - March 2002 - Part A (0.7 MB pdf file*)
SENL - March 2002 - Part B (0.8 MB pdf file*)
SENL - April 2002 (1.1 MB pdf file*)
SENL - May 2002 - Part A (1.1 MB pdf file*)
SENL - May 2002 - Part B (0.6 MB pdf file*)
SENL - June 2002 - Part A (0.5 MB pdf file*)
SENL - June 2002 - Part B (0.8 MB pdf file*)
SENL - July 2002 - Part A (0.8 MB pdf file*)
SENL - July 2002 - Part B (1.0 MB pdf file*)
SENL - August 2002 - Part A (1.2 MB pdf file*)
SENL - August 2002 - Part B (1.3 MB pdf file*)
SENL - August 2002 - Part C (0.9 MB pdf file*)
SENL - September 2002 (1.3 MB pdf file*)
SENL - October 2002 - Part A (1.1 MB pdf file*)
SENL - October 2002 - Part B (1.0 MB pdf file*)
SENL - November 2002 - Part B (1.1 M B pdf file*)

SEScannings

SENL - December 2002 (0.9 MB pdf file*)

Note that all these files are in Adobe pdf format and can only be read with Adobe Acrobat Reader. This software is free and can be downloaded from Adobe's web site (http://www.adobe.com/).

As always, thanks for the hard work Joanne! - Fred Espenak

Books On Line

From Eli Maor to PP

Trigonometric news Dear Patrick, I must have sent this message to your old e-mail address, because it was returned unde-lievered. So I'm trying again. I sent it to all my eclipse friends.

Princeton University Press is launching a new program in which a selected number of their books will be available online, free-of-charge for anyone to use. The first five books of this program have just been released, and "Trigonometric Delights" is one of them! Of course I'm quite excited to be honored in this way. So, if you know of anyone else who might be interested, you can let them know. The book, with links to my other books, can be accessed at http://pup.princeton.edu/books/maor/

Hoping all is well at your end. Here it's a bit cold, -14C this morning, but we're used to that here in Chicago! With best wishes, Eli Maor

Search on the word ECLIPSE

Danto, A.C.: After the End of Art: Contemporary Art and the Pale of History.
Dawisha, A.: Arab Nationalism in the Twentieth Century: From Triumph to Despair.
Einstein, A.; Engel, A., trans.: The Collected Papers of Albert Einstein: Volume 7: The Berlin Years: Writings, 1918-1921. (English translation of selected texts).
Einstein, A.; Janssen, M., Schulmann, R., Illy, J., et al., eds.: The Collected Papers of Albert Einstein: Volume 7. The Berlin Years: Writings, 1918-1921.
Habinek, T.N.: The Politics of Latin Literature: Writing, Identity, and Empire in Ancient Rome.
Holmes, D.R.: Integral Europe: Fast-Capitalism, Multiculturalism, Neofascism.
Table of Contents for Pauly, P.J.: Biologists and the Promise of American Life: From Meriwether Lewis to Alfred Kinsey.
Table of Contents for Smith, H.: German Nationalism and Religious Conflict: Culture, Ideology, Politics, 1870-1914.
Table of Contents for Zirker, J.B.: Total Eclipses of the Sun.
Zirker, J.B.: Total Eclipses of the Sun.

SEWP Mailing list - NEW

Dear SEML Subscribers, You might have noticed, from now on, all SEML posted messages have a subject intro (SEML) while it was (SE) in the past. The reason for this change is, that from now on, we have a second mailing list. This last mailing list will have the subject intro (SEWP).

We started with the SEML Solar Eclipse Mailing List 10 December 1997. That time it was the sole solar eclipse related mailing list. At the moment, we do have between 3 and 10 messages a day. The list is live and for the SEML subscriber it is a READ and WRITE mailing list. For those, who do not reply to the Welcome Questionnaire, or which e-mail address is rather suspicious, we keep the SEML subscriber on READ only. Any time, those READ only subscribers can write to the List Owner and ask for information.

The new mailing list is a READ only list and the subscriber will get maximum one message a week. It is NOT a digest of the past posting of the SEML. We have the monthly Solar Eclipse Newsletter (SENL) as a digest. But the SEWP mailing list will inform you about the availability of the latest Solar Eclipse Newsletter, last updates on the organised Solar Eclipse

SEScannings

conferences (SEC or TD), important updates on the Solar Eclipse WebPages or will give you the Solar Eclipse Calendar every month.

Of course, those subscribed to the live SEML, do not have to subscribe to the SEWP mailing list. All messages on the SEWP will be automaticly posted on the SEML. But those, whom do not want to get 3 to 10 live SEML messages a day, can get the latest info maximum once a week on the READ only SEWP mailing list.

Messages can not be posted to this weekly SEWP mailing list, but comments are always welcome at the List Owner.
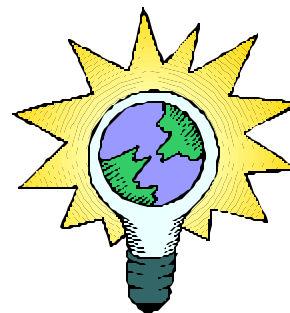
General:

Solar Eclipse Mailing List (SEML)

= Daily READ and WRITE Solar Eclipse related Mailing List (between 3 to 10 messages a day)

To subscribe send E-mail to listserv@Aula.com or solareclipsewebpages@btopenworld.com

with in the body SUBSCRIBE SOLARECLIPSES name, country

Solar Eclipse WebPages Mailing List (SEWP)

= Weekly READ ONLY Solar Eclipse related Mailing List with notifications about Totality Day (TD), Solar Eclipse Confe r-ence (SEC), Solar Eclipse Newsletter (SENL), Solar Eclipse WebPages (SEWP) updates, and the monthly Solar Eclipse Ca l-endar (SECalendar), etc. (maximum 1 message a week)

To subscribe send E-mail to solareclipsewebpages@btopenworld.com

With in the body SUBSCRIBE SEWP name, country

If you need more information about both mailing lists, please feel free to send me a message in private. Thanks to Jan Van Gestel to provide his server for both mailing lists. Without Jan we would not be able to communicate worldwide about our beloved topic SOLAR ECLIPSES. Thank you Jan!!!!

Best regards, Patrick

Totality Day Proceedings

From: Robert B Slobins To: "'SOLARECLIPSES@AULA.COM'" <SOLARECLIPSES@aula.com> Date: Mon, 27 Jan 2003

How many in this list group would like to see a bulletin of proceedings of this coming and previous Totality Day confe r-ences? What would it take to do this? cheers/rbs

From: Peter Tiedt

count me in - I would love this!

From: Stig Linander

On a web site. Not on the list. (Proceedings tend to be large) Best regards, Stig.

SEScannings

From: solareclipsewebpages@btopenworld.com

Due to time constraints, I was not able to start or even finish the proceedings of the previous issue of Totality Day last year. Though, the compilation of SEC2000 is on the webpages at:

http://solareclipsewebpages.users.btopenworld.com/SEC_files/WebPages.pdf

Of course, the complete text is not availble, it was quite a bit MBs in size. Though you can read the papers and biography of the speakers.

I will do my best for TD2003. Though, there is SEC2004 to prepare ... Best regards, Patrick

New book - Sky and ocean joined

Steven J. Dick, Sky and Ocean Joined: The U.S. Naval Observatory, 1830-2000 (Cambridge University Press, 2002), 608 pp. A comprehensive history of the U.S. Naval Observatory, available from Cambridge University Press.

Dick, Steven J. Sky and ocean joined : the U.S. Naval Observatory, 1830-2000 / Cambridge ; New York : Cambridge University Press, 2003. xiii, 609 p. : ill., maps ; 26 cm. List price: $130

URL http://books.cambridge.org/0521815991.htm
http://www.usno.navy.mil/pao/History/SOJ_Contents.shtml
http://www.loc.gov/catdir/description/cam022/2002017386.html

This definitive history of the Naval Observatory is now available. USNO Historian Steve Dick spent over 15 years in research and writing the history of this national astronomical institution in the U.S.

If you look on Addall, you can find slightly lower prices than the Cambridge list price. http://www.addall.com/ Brenda Corbin

Brenda G. Corbin, Librarian Phone: 202/762-1463 U. S. Naval Observatory Fax: 202/762-1083 3450 Massachusetts Ave., N.W. Washington, D.C. 20392-5420 e-mail:corbin. brenda@usno.navy.mil

USNO Library Home Page: http://www.usno.navy.mil/library/ Direct link to online catalog: http://moon.usno.navy.mil/urania.htm

USNO
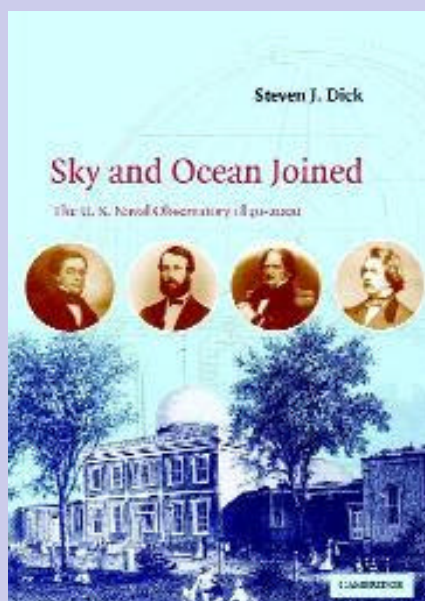
U.S. Naval Observatory

SETalk

AAS Education Prize

The 2003 Education Prize of the American Astronomical Society Announced 1/8/03, to be officially awarded at the meeting in Atlanta in 1/04

"For his eloquent and informative writing of textbooks from junior high through college, For his devotion to teaching generations of students, For sharing with the world the joys of observing eclipses, For his many popular books and articles on astronomy, For his intense advocacy on behalf of science education in various forums, For his willingness to go into educational nooks where no astronomer has gone before, the AAS Education Prize is awarded to Jay M. Pasachoff."

Green flash

From: Timo Karhula To: SOLARECLIPSES@AULA. COM Date: Fri, 03 Jan 2003 13:57:53

Jay M. Pasachoff wrote: Congratulations on your view. We had a good view from Roxby Downs. Do you have a green-flash image I could see?

Unfortunately not yet. I used an analog video-camera so it is not so easy to get digital frames from it. I will, however, try to get some images as soon as I get hands on the right equipment.

Some will argue if it was a genuine green flash, but the colour was certainly not red or yellow. It was more yellow-greenish, more green. I did not see it visually since I only looked at the LCD-screen. Some say that a green flash is a very local phenomenon. People only hundred metres away can miss it totally.

So, you were also at Roxby Downs? Our group was about one km south of the Purple Downs - Andamooka intersection, on the left side if you drove from Roxby (by the ASSA poster). My viewing spot was about 10 metres higher than the road level and it could also have affected my observation of the green flash. /Timo Karhula

From: Klipsi

here's what you should do: if you have a video capture card, capture and save an MPEG file, and post it online. Then , best view it with Irfanview www.irfanview.com as it allows to view it in slow motion, even frame by frame. Or with Windows Media Player, as it allows to increase saturation and contrast on playback (but not speed).

if you have no capture card, and no software for mpeg editing, here is another trick how to get an MPEG video from your analog video:

find a friend who has a recent Sony DV or D8 handycam, which allows video-in AND also has memory stick WITH mpeg function. Connect your analog handycam to the Sony digital cam with the normal video cable.
Playback the analog cam and record it digitally on the digital cam (it should even result in slightly richer colours, more saturation).
Insert a memory stick in the DV or D8 cam.
Playback the digital tape .
Click record while in playback mode, it will record an mpeg file on the memory stick (mpeg copy).
Choose settings on the memory stick in 320x240 size rather than 160x120.
Transfer MPEG file from memory stick to PC (click and drag, or copy-paste) and upload/ftp to website or send as email attachement.

In other words : if you get a digital cam with video in/out , you can use your former analog cam and still get digital copies from it afterwards. Klipsi

Delta T

From: Jean Meeus Date: Fri, 03 Jan 2003 15:45:01

On 2002 December 31, the difference Delta T between the uniform Dynamical Time and Universal Time was 64.45 seconds. This represents an increase of only 0.17 second since 2001 December 1.

The values during the last months were :

2002 Sep 1 64.41 seconds 0.20 sec larger than on 2001 Sep 1
2002 Oct 1 64.42 seconds 0.20 sec larger than on 2001 Oct 1
2002 Nov 1 64.43 seconds 0.18 sec larger than on 2001 Nov 1
2002 Dec 1 64.45 seconds 0.17 sec larger than on 2001 Dec 1

Jean Meeus

SETalk

Eclipse stamps for exchange

From: Vic & Jen Winter - ICSTARS Astronomy To: SO-LARECLIPSES@AULA.COM Date: Sat, 04 Jan 2003

I made it home with the South Africa Special Stamp, envelope and postcard. My postal service eclipse poster is crumpled, but it did just fine pinned up in the RV. (Recreational Vehicle)

From: Kidinvs@aol.com

I do know that Zimbabwe did not issue any eclipse 2002 stamps. They did have a nice stamp for the June '01 event, in 2 different denominations. Rick Brown

From: Chris Malicki

So far, for Dec. 2002, I have seen eclipse stamps only from South Africa (thank you to David Foot) and have posted the stamp at the bottom of page http://webhome.idirect.com/~kmalicki/stamps2001to2002.htm As far as I know, Australia did not print an official stamp. However, Woomera did issue an eclipse envelope and postmark. As I mentioned in my eclipse report to the list, the envelope has a picture of an annular eclipse. I purchased a number of these and have a limited few that I can give or trade away. To see the Woomera cover (and the S. Africa cover), please see http://webhome.idirect.com/~kmalicki/first2001-2002.htm   Chris Malicki

New Moon

From: Herb Solinsky To: HASTRO-L@LISTSERV.WVU.EDU Date: Sat, 04 Jan 2003 10:04:14

COMMENT ON VARIATION FROM CONJUNCTION TO FULL MOON AND FROM NEW CRESCENT TO FULL MOON

In the book _Calendars of Ancient Egypt_ by Richard A. Parker, on the bottom of page 6, Parker wrote: "The necessary time for full moon varies from 13.73 to 15.80 days after conjunction."
The sketch Parker provides on page 7 illustrates the reason. The moon's orbit around the earth is essentially an ellipse with the earth at one of the two foci rather than in the center of the ellipse. Hence there are extreme cases of the shortest and longest paths that the moon must make in going from conjunction (the astronomical new moon) to full moon. As Parker pointed out, the variation is 2.07 days which is about 48 hours 11 minutes.

By examining a few cases near these extremes in the 20th century we may compare the day of the lunar month based upon whether one considers the first day of the lunar month to be the day on which the conjunction occurs or the day on which the new crescent is seen. While the original comment was based upon the context of Egypt where the day began at sunrise, most nations of the middle east in ancient times began the day with sundown and a lunar month with the new crescent. Let us consider three cases in which the computation for visibility of the new crescent is made from Jerusalem, and the boundary for a new day is computed as sunset. For those who wish to check with other software, I am considering the latitude of Jerusalem to be 31.80 and the longitude of Jerusalem to be 35.22 E which are the co-ordinates I have seen for an official weather station of Jerusalem.

CASE 1: CONJUNCTION on July 7, 1967 at 17:01 UT and sunset 16:48 UT
FULL MOON on July 21, 1967 at 14:39 UT.
Time from conjunction to full moon: 13.90 days (a little over the minimum of 13.73).
Note that the conjunction occurred shortly after sunset, close to the beginning of a new day. For a month that is considered to begin on the day of the conjunction, the full moon occurs on the 14th day of the month in this example.
On the evening that ends July 9, 1967 the new crescent will be theoretically visible. For a month that is considered to begin on the day beginning with the new crescent, the full moon occurs on the 12th day of the month.

CASE 2: CONJUNCTION on December 12, 1966 at 3:15 UT and sunset 14:35 UT
FULL MOON on December 27, 1966 at 17:45 UT.
Time from conjunction to full moon: 15.60 days (a little under the maximum of 15.80 days). For a month that is considered to begin on the day of the conjunction, the full moon occurs on the 15th day of the month in this example.
On the evening that ends December 13, 1966 the new crescent will be theoretically visible. For a month that is considered to begin on the day beginning with the new crescent, the full moon occurs on the 12th day of the month.

CASE 3: CONJUNCTION on September 26, 1973 at 13:54 UT and sunset 15:32 UT FULL MOON on October 12, 1973 at 3:11 UT.
Note that the conjunction occurred shortly before sunset, close to the end of a new day. Time from conjunction to full moon: 15.55 days (a little under the maximum of 15.80 days). For a month that is considered to begin on the day of the conjunction, the full moon occurs on the 17th day of the month in this example!!
On the evening that ends September 28, 1973 the new crescent will be theoretically visible. For a month that is con-

SETalk

sidered to begin on the day beginning with the new crescent, the full moon occurs on the 14th day of the month.

In these examples, for a conjunction month, the full moon occurs from the 14th to the 17th day of the month. The 17th is very rare. In these examples, for a new crescent month, the full moon occurs from the 12th to the 14th day of the month. In the most exreme case for a new crescent month, the full moon can occur on the 16th day of the month, but this is very rare. Typically the full moon occurs on the 13th, 14th, and 15th for the new crescent month. Herb Solinsky near Dallas

From: Herb Solinsky

*** Correction to one number in case 2 ***

COMMENT ON VARIATION FROM CONJUNCTION TO FULL MOON AND FROM NEW CRESCENT TO FULL MOON

In the book _Calendars of Ancient Egypt_ by Richard A. Parker, on the bottom of page 6, Parker wrote: "The necessary time for full moon varies from 13.73 to 15.80 days after conjunction."

The sketch Parker provides on page 7 illustrates the reason. The moon's orbit around the earth is essentially an ellipse with the earth at one of the two foci rather than in the center of the ellipse. Hence there are extreme cases of the shortest and longest paths that the moon must make in going from conjunction (the astronomical new moon) to full moon. As Parker pointed out, the variation is 2.07 days which is about 48 hours 11 minutes.

By examining a few cases near these extremes in the 20th century we may compare the day of the lunar month based upon whether one considers the first day of the lunar month to be the day on which the conjunction occurs or the day on which the new crescent is seen. While the original comment was based upon the context of Egypt where the day began at sunrise, most nations of the middle east in ancient times began the day with sundown and a lunar month with the new crescent. Let us consider three cases in which the computation for visibility of the new crescent is made from Jerusalem, and the boundary for a new day is computed as sunset. For those who wish to check with other software, I am considering the latitude of Jerusalem to be 31.80 and the longitude of Jerusalem to be 35.22 E which are the coordinates I have seen for an official weather station of Jerusalem.

CASE 1: CONJUNCTION on July 7, 1967 at 17:01 UT and sunset 16:48 UT
FULL MOON on July 21, 1967 at 14:39 UT.
Time from conjunction to full moon: 13.90 days (a little

over the minimum of 13.73).

Note that the conjunction occurred shortly after sunset, close to the beginning of a new day. For a month that is considered to begin on the day of the conjunction, the full moon occurs on the 14th day of the month in this exa mple.

On the evening that ends July 9, 1967 the new crescent will be theoretically visible. For a month that is considered to begin on the day beginning with the new crescent, the full moon occurs on the 12th day of the month.

CASE 2: CONJUNCTION on December 12, 1966 at 3:15 UT and sunset 14:35 UT
FULL MOON on December 27, 1966 at 17:45 UT.
Time from conjunction to full moon: 15.60 days (a little under the maximum of 15.80 days). For a month that is considered to begin on the day of the conjunction, the full moon occurs on the 15th day of the month in this example.

On the evening that ends December 13, 1966 the new crescent will be theoretically visible. For a month that is considered to begin on the day beginning with the new crescent, the full moon occurs on the 13th day of the month.

CASE 3: CONJUNCTION on September 26, 1973 at 13:54 UT and sunset 15:32 UT
FULL MOON on October 12, 1973 at 3:11 UT.
Note that the conjunction occurred shortly before sunset, close to the end of a new day. Time from conjunction to full moon: 15.55 days (a little under the maximum of 15.80 days). For a month that is considered to begin on the day of the conjunction, the full moon occurs on the 17th day of the month in this example!!

On the evening that ends September 28, 1973 the new crescent will be theoretically visible. For a month that is considered to begin on the day beginning with the new crescent, the full moon occurs on the 14th day of the month.

In these examples, for a conjunction month, the full moon occurs from the 14th to the 17th day of the month. The 17th is very rare. In these examples, for a new crescent month, the full moon occurs from the 12th to the 14th day of the month. In the most exreme case for a new crescent month, the full moon can occur on the 16th day of the month, but this is very rare. Typically the full moon occurs on the 13th, 14th, and 15th for the new crescent month. Herb Solinsky near Dallas

From: Herb Solinsky

Correcting another error: Variation in time from conjunction to full moon is 2.07 days
which is about 49 hours 41 minutes.

SETalk

Infrared photography of eclipse

From: Harvey Wasserman To: SOLARECLIP-SES@AULA.COM Date: Sun, 05 Jan 2003 11:28:23

I was just looking at Glenn Schneiders site regarding the infrared camera on hubble. http://hubblesite.org/newscenter/archive/1997/13/

Has anybody photographed full eclipses in infrared, or for that matter in other spectrum? Could an eclipse be photographed through clouds in this way? Really what brought this question to mind is the excellent chance of being clouded out in Iceland in May. Harvey Wasserman

From: Klipsi

good point ! I remember once I observed a sunset from near Geneva. at last minute the Sun disappeared in far away fog, could not see it with my eyes anymore. But using a Sony Hi8 video camera with nightshot on , the Sun was still visible ! Yes, it is worth a try , if clouds rule in Iceland or Scotland.

I did try that actually last June in Puerto Vallarta, but with no luck. Maybe the clouds were too thick. Or maybe it is because the nightshot technology has evolved ? Probably that's what it is. In PV I had another cam than the one I used for the sunset a few years ago. I remember that in the first year that this nightshot feature appeared on Sony handycams (Hi8 only, back then) , they had a weird problem: using nightshot in daylight on people in light summer clothes allowed to see through the clothes and film them naked ! Sony had to change the filter ;-) So maybe it is possible to film the Sun through clouds only with older versions of nightshot ? Or is it a question of how much but not too much clouds ? Klipsi

From: Glenn Schneider

Kodak makes several "infrared" emulsions:

Ektachrome Pro IR EIR Film
Aerochrome III IR 1443
Aerochrome III IR NP SO-734
Pro High Speed IR Film
Aerochrome II IR Film 2443
Aerochrome NP Film SO-134
Ektachrome High-Speed IR Film (HSI)
Aerographic IR 2424 (monochrome)
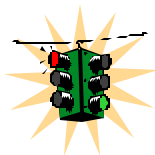
They ALL cut off shortward of 9500 Angstroms (and are pretty much non-responsive longward of 9000 Angstroms). Here is the spectral sensitivity curve for HSI:
http://www.kodak.com/global/en/professional/support/techPubs/f13/f002_0333ac.gif;jsessionid=TGRWYP22OZNNBQHIO3JHWGY
for 1443 (and SO-734): http://www.kodak.com/US/en/government/aerial/technicalPubs/tiDocs/ti2562/ti2562c.gif
for 2443 (and SO-134): http://www.kodak.com/US/en/government/aerial/technicalPubs/tiDocs/ti2161/ti2161c.gif
for 2424: http://www.kodak.com/US/en/government/aerial/technicalPubs/tiDocs/ti0132/ti0132m.gif

The extended red response of these films (cyan for the color emulsions) cuts off in what we IR astronomers call the very short wavelength near-IR. Between 0.8 and 0.9 microns you will get better penetration through water vapor and some ice crystals - and indeed IF you have thin cirrius you may do better in the near-IR than in the optical. Don't think, though, that you will be able to "see through" strtatus of cumulous clouds!

It's an easy experiment to try. Set up 2 cameras, one with a "normal" and one of the above "IR" films, and shoot the sun with both on a day with cirrius. For the IR film, though, you will want to use an optical blocking (longpass) filter (in conjunction with your ND filter - and make sure your ND filter passes in the near-IR) - otherwise you won't get much of a contrast gain.

Then, hope for no clouds on eclipse day. Glenn Schneider - Near Infrared Camera and Mutiobject Spectrometer, Instrument Scientist (what I do when not chasing eclipses)

From: Robert B Slobins

One thing to consider when using IR film is focus. It is tricky.

Because of the longer wavelength of IR, the focal length of the lens is actually longer. This means that you can not trust the markings on the focusing ring as they are for visual light. You need to focus as if the subject is short of infinity or use a high f-number. Also, you may need to use a yellow or red filter; otherwise the blues and greens that still affect the film will make the image essentially a visible light image. cheers/Robert B Slobins

From: Glenn Schneider

Robert B Slobins wrote: Because of the longer wavelength of IR, the focal length of the lens is actually longer.

Do heed Bob's warning, but of course the focal length of the lens. MOST (but not all) commercial cameral lenses are panchromatically corrected for chromatic aberration only over visible wavelengths - but SOME have extended spectral correction.
You cannot tell visually, of course, since you cant see into the short wavelength near-IR.

SETalk

A) Check with the manufacturer's specification.
B) See if there is a (usually red) dot on the focus ring short of infinity, IF there is THIS is where you want to set the focal adjustment for near-IR focus at infinity.
C) Take some test exposures (the best way, naturally).

> Also, you may need to use a yellow or red filter; otherwise the blues and greens that still affect the film will make the image essentially a visible light image.

There is no "may" about this, but not yellow or red. If you want the near-IR contrast advantage these films have to offer then use an optical blocking/IR passing filter only. The "difficulty" with that is YOU cannot see through one. That means you MUST know where focus at infinity is for your lens (or telescope system) at near-IR wavelengths) - a bit tricky if the system is unstable with temperature... What you really want is a Wratten #87, 87C, or 89B. A no 25 (red) filter is marginally OK for B&W emulsions - but I would avoid it for color - but you will get much better performance if you stick with the filters noted above. Glenn Schneider (on the road - in Seattle)

From: Dale Ireland

Klipsi I would be careful about using the camcorder with the nightshot feature on. All camcorders are very sensitive in the IR, they have blue filters built in to block the IR so you don't get color problems and the weird effects you mentioned. The night shot just removes the filter. The problem is that the IR has a different focal point so you can't focus the visible light and the IR at the same time. Using the night shot in daylight will "theoretically" reduce the sharpness of your image, a lot, just like using a poor telescope with one lens rather than an achromat or apochromat, the different light wavelengths will not focus together. Unless you use an IR filter to see just the IR I wouldn't do it for eclipses because it will just degrade your image quality. Dale

From: Robert B Slobins

Regarding IR film: It is my understanding that there are some coronal and chromospheric lines in the IR to 9000-9500 A. Some of them may be of sufficient intensity to record on IR film. It would be an interesting experiment to perform in 2005 or 2006. It would also be expensive; I can not see doing this except on a CCD or PMT device that can pick up these wavelengths, as the sensitivity of the film with the filtration is quite reduced.

I could see that it would take all 30 seconds of totality last month to make one image. The moon would have smeared across the frame even if the equipment were tracking the sun.

Has anyone any information on near-IR observations of the sun.

Also, would the IR cut right through the dusty parts of the corona as well as the atmosphere? (Dr Pasachoff, please comment.) cheers/Robert B Slobins

From: Bharat Adur

Yes infrared photography is a little tricky photography specially for eclipse photography. I remember during 1983 eclipse which we were observing from Tanjug Kodok, Indonesia. There was an american team who had used Kodak color infrared film to look for the solar corona, and I remember seeing the temperature isophotes of the same.I think with now the CCD's this should be much more interesting. Has any IR camera used for the eclipse photography? Bharat Adur 91-022-4952239(D) email:bharatadur@hotmail.com, bharatadur@rediffmail.com

Towns/cities database

From: Sheridan Williams To: SOLARECLIPSES@AULA.COM Date: Sun, 05 Jan 2003 13:12:39

Town / City data (Place names and latitudes and longitudes) I have compiled my own list of places from all sorts of sources, and anyone is invited to use the list. It has been fine tuned to cover locations that will witness total and annular eclipses in the next 20 years. The files are in the following formats: Dbase format (235k)   Eclipse Complete from Zephyr Services   (99k) WIN-ECLIPSE by Heinz Scsibrany (86k) WIN-ECLIPSE is the subject of a separate email to the list. Download from www.clock-tower.com/eclipse. htm Best wishes Sheridan Williams

From: Sheridan Williams

If anyone downloads the databases mentioned in another email, and they add or change data, please would they send the additions (not the whole file) to me at: sheridan@clock-tower. com. That way I can keep the files up to date for other users to download. Best wishes

SETalk

What makes totality seem so short?

From: KCStarguy@aol.com To: SOLARECLIPSES@AULA.COM Date: Sun, 05 Jan 2003 03:57:04

I can imagine 30 seconds seeming a short time /experience to see totality but they all seem "short." I was just wondering- what is it that makes the totality seem so short (no matter how long it is)?

Is it the psychology of the "totality environment" (totalityonment?) and/or
(1) we try to do too many things during totality?
(2) we are caught up in looking starring at the sun and lose track of time?
(3) sensory overload and trying "drink in" (so to speak) all that is going on?
(4)listening and seeing all that is going on ?
(5) the rush of the shadow after waiting since first contact?

or all five and more? any thoughts appreciated

From: Evan Zucker

I think it seems short because it IS short. I realize I am in a minority, but I thought the 6+ minutes of the 1991 Baja eclipse WAS a long time. Unlike many of you, I don't try to do a lot of things during totality. I mainly observe with the naked eye and through my telescope and take a view wide angle photos. I remember in 1991 wondering how mu ch longer totality was going to last, and that was after having seen only one other total solar eclipse at that point (March 1970).

The shorter 1994 and 1998 eclipses certainly seemed to go by faster for me, namely because they DID go by faster.

Also, a watched pot never boils. If you spent totality staring at your watch, it would definitely seem to last longer. -- EVAN

From: Robert B Slobins

I agree with Evan. I mentioned this before on this mailing list:

How many of you would wish to spend the time equivalent of a totality immobile in a traffic jam? Most of us on this list would be beeping within 30 seconds! Imagine three minutes!

A song lasts about three minutes. Long hits like Hey Jude and American Pie that are longer are rare. Perhaps there is a musician or music psychologist out there who can explain why three to four minutes is the average for a song.

Evan can verify this: it takes about a minute to land a plane from the beginning of final approach, especially if the pilot is in the traffic pattern. That is a long and busy minute!

It is best to define one's objectives for totality and to plan and drill to ensure success. For example, I ignore shadow bands and the whole sky, unless I have enough time. I also use automation whenever possible and carry enough backup equipment to cover any problems that may occur. I use a check list through totality.

Good pilots and project managers do this. Even if you are there just looking, it helps to organise one's time. A lot can be done in even twenty seconds!

Since 1988, we have been treated to a succession of total eclipses over accessible and generally friendly parts of the world. Now, we have to deal with totalities over oceans and regions and nations who are not going to be so accommodating or inexpensive for the next several years. So it is important to be even more diligent in ensuring successful solar eclipse work.

This is why I posted a request for people on this list to send me accounts of eclipse blunders. We need to learn from each other's mistakes. cheers/Robert B Slobins

SETalk

Geographical Coordinates

From: Joseph Cali To: SOLARECLIPSES@AULA.COM Date: Mon, 06 Jan 2003 08:33:47

>At 11:49 AM 1/01/2003 +0100, Julien wrote: Hi everyone, For those who want to make calculations about eclipses, does anyone know a good link to listings of (accurate) Geographical Coordinates of most places in the World? (I'm now searching for places in Namibia).

Julien, Look in the index of the Times Atlas of the World. town and city locations given to accuracy of 1 minute (approx 2 km). Most big libraries would have a copy. Joe Cali

From: Sheridan Williams

Dear Joe, I have no problem with lists of lat longs, it's getting them into a file that's the problem. Scanning and OCR has proved inaccurate.

From: Sheridan Williams

Yes, but can you download the database?

From: Geoff

Hey there, For those interested, the Heavens-Above database cannot be directly downloaded, but you can download directly from their source.

US countries: http://geonames.usgs.gov/index.html (I havent checked this one out fully)

Non US countries: http://www.nima.mil/gns/html/cntry_files.html

For the Non US countries, each country has its on zip file, each containing a text file with all the places, along with a lot of other info in it. Most importantly, it DOES contain the latitude/longitude of the location.

Now whilst this could be directly used in an eclipse mapping program, all that would be needed is to write a simple script that would read in the file and convert it to the correct format. --Geoff

From: Peter Tiedt

And I have done this for all of Africa. The data is in a plain format (location, lat, long) and also in WinOccult format. If anyone needs, just yell. Pete

WINECL eclipse software

From: Sheridan Williams To: SOLARECLIPSES@AULA.COM Date: Sun, 05 Jan 2003 13:16:27

WIN-ECLIPSE by Heinz Scsibrany
Having used a variety of makes of eclipse software, including some written by myself, I should point out that the best in my mind is the above, provided it is supplemented by the city data mentioned in another email to the SEML list. It is free !

WIN-ECLIPSE features the following:
Solar and Lunar eclipses
Maps in Globe or Mercator projection
Eclipses from 1000BC to 9999AD
User selectable cities database
Previous next eclipse in Saros
Screen dump (copy graphics)
Zoom in on selected city
Draw grid, centreline
Draw umbral shadow outline on eclipse track at selected intervals
Draw penumbra
View from Sun (Moon actually) of the moving shadow: (with optional trace)
Shadow Centred, Eclipse centred
Change colour of coast, country, oceans etc.
View animated eclipse from any location
Find eclipses from any location (did you know Ibiza has an annular in 2005 & 2028 and a total in 2026)
Plot several eclipses on a single chart
Local circumstances for all locations in database for specific eclipse
Click on globe for local circumstances
Very good help files

Download from: http://www.lcm.tuwien.ac.at/scs/welcome.htm

and don't forget to download my place names database from: www.clock-tower.com/eclipse.htm Best wishes Sheridan Williams * sheridan@clock-tower.com

From: Bob Morris

This WINECL eclipse software is truly wonderful!

I made use of it by printing two earths in color: one with the five eclipse tracks I've "visited" (63, 66, 70, 72, 98) and one with those I hope (minimally) to see before my time is up: 06, 17, 24.

SETalk

The latter is the day after my 82nd birthday and is total within 50 miles of my home, Ottawa. Though I will drive (or be shipped, dead or alive!) to the southern tip of Quinte Isle on Lake Ontario for 3 min 33 sec of totality!

I made the overhead point for both 40 deg N lat and -40 deg long. Works well for all tracks concerned.

Printed side by side on 8-1/2x14" paper, I've sent them to Costco for lamination with a white border.

It will go on my wall underneath Fred's magnificent 1998 "arrowhead" corona and above a sequence of three satellite shots of the 98 shadow's progress before, on, and after Aruba.

So, one, two and three "circles" as you progress down the wall!

Thanks Sheridan for pointing me to this software! Bob Morris

From: Jean Meeus

< This WINECL eclipse software is truly wonderful!

Yes, it seems to be an excellent program. (I did not yet work much with it). However, I have two complaints:

(1) The very small partial solar eclipse of 1935 January 5 is missing. I concede that this eclipse was so small that it was not observed (maximum magnitude was only 0.001), but for reason of completeness it should have been included. In fact, it can be considered to be a test case!

(2) When you ask for the central line, you obtain a long list with points of the *whole* central line, from the beginning to the end. As far as I know, it is not possible to obtain only a part of the track. Often only a part of the track is of interest to the user. Jean Meeus

From: Jean Meeus

Here are some further "criticisms" about WINECL.

Data for points on the central line: this list cannot be brought on the screen directly, because it is first needed to save it in a file, which then should be opened. This can be an annoyance if many eclipses are to be investigated.

Apparently, the data in those lists are given at intervals of 12 seconds. But the times are given only to the nearest minute! So, for instance, for the track of the eclipse of 2002 December 4 there are five successive points bearing

the time 08:45, five points with the time 08:46, etc. Moreover, it is not known whether the times are *rounded* to the nearest minute, or if the seconds have been deleted. Is 08:45:40 rounded to 08:45 or to 08:46?

In the list, geographical longitudes and latitudes are given to 0.01 degree only, which is hardly accurate enough. Finally, for the points on the central line neither the Sun's altitude (at central eclipse) nor the width of the path are given. Jean Meeus

From: Wil Carton

Question: Where, with which filename, will the downloaded cities-database be stored on my harddisk? How can I inform my existing (and payed) implementation of the WinEclipse program where it can read the database, so that the program will plot indeed those points on the Earth-map, when I activate the screenbutton? Wil Carton

From: Jean-Paul GODARD

In the file menu, just choose "Load city coordinates..." Any .txt file in any directory may be candidate Cordialement, Martine & Jean-Paul

---

Ask

From: Beatriz García To: HASTRO-L@LISTSERV.WVU.EDU Date: Tue, 07 Jan 2003 19:03:59

Dear all, You mentioned the book by Francesca Rochberg-Halton "Aspects of Babylonian Celestial Divination: The Lunar Eclipse Omens of Enuma Anu Enlil (1988)." I live in Argentina and is not possible to find it here... is possible to buy it somewhere or to have a copy of it? Thanks a lot, Beatriz Garcia

From: Hermann Hunger

The book is available from the publisher: Ferdinand Berger Wiener Strasse 21-23 A-3580 Horn (Austria)

I ought to tell you before that it is expensive: ca. $ 130.

Hermann Hunger Institut fuer Orientalistik Spitalgasse 2 A-1090 Vienna, Austria

From: Beatriz García

but.. is it in English? I hope so! Thank you very much Beatriz

From: Gary Thompson

Hi Beatriz. You could try Eisenbrauns Inc. I very quickly obtained my copy of the above (and also Mul.Apin by Herman hunger and

SETalk

David Pingree) through Eisenbrauns without a fuss after trying unsuccessfully for several years through other channels in Australia, Europe, and North America. You can contact them at: orders@eisenbrauns.com The publication is Beiheft 22 (1988) of Archiv für Orientforschung. (Mul.Apin is Beiheft 24 (1989).) Both publications are English-language. Regards, Gary Thompson

From: Beatriz García

Dear Gary, Thank you very much for this message. Best regards, beatriz

From: lester ness   S

Multiply the price by 8 or 10 to get some idea of the price in Chinese money. It is nearly the same as a professor's monthly wage in China. Lester

From: Beatriz García

could you tell me about the money, wich is the equivalent in dollars or euros? I have a money conversor, but I think the result is bad. Thanks, beatriz Thank

From: Brian Whatcott

Beatriz, The Argentine Peso to US Dollar (bid) rate is 3.27 today. $130 would be Argentine 425.10 peso. Last year's currency collapse is unhelpful for you, I expect. This volume was apparently the dissertation of Francesca Rochberg-Halton. The work is noted at the on line catalogs of several National 'Union' lists:
LIBRIS (Sweden)
BIBSYS (Norway)
ABES (France)
COPAC (Britain)

Perhaps an inter-library loan might be an alternative?

The Austrian Publishing house given below by Hr. Dr. Hunger has an email address to which you could address a query directly. Brian Whatcott

From: Beatriz García

Thank you very much, Brian. You are right: the price is a bit expensive for us now!!!! I will try with the local library... Best regards, Beatriz Garcia

---
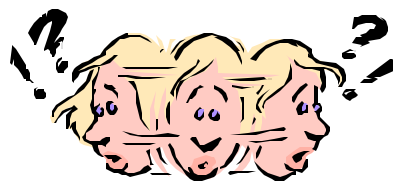
Dover reprints

From: Joe Heafner To: HASTRO-L@LISTSERV.WVU.EDU Date: Sat, 04 Jan 2003 04:37:31

Hello. Some of you may be aware that Dover Publications has a new line of books called Phoenix Editions. These are hardbound reprints of significant and important (by whose criteria I do not know) works that were previously out of print. There are details in their latest catalog. In that catalog, they invite readers to submit suggestions for other Phoenix Editions to ReprintProposals@doverpublications.com. However, this email address never worked for me. I finally got through to Diana Grey at Diana_Grey@doverpublications.com.

I have suggested that Dover consider reprinting Ginzel's three volume work and van den Bergh's two volume work Periodicity and Variation of Solar (and Lunar) Eclipses, Vol. 1 and 2. T. Willink, Haarlem, Netherlands, 1955.

I encourage others to submit suggestions, especially for Ginzel. ;-)

SETalk

Cheers, Joe Heafner - Instructional Astronomy and Physics I don't have a Lexus, but I do have a Mac. Same thing.

From: Wayne Orchiston

Hi Diana, I just read about Dover Publications' Phoenix Editions, and from the perspective of someone interested in the history of nineteenth century astronomy, reprints of the following two books would be well received:

Clerke, Agnes, M., 1893. A Popular History of Astronomy During the Nineteenth Century. Third Edition. London, Adam & Charles Black.

King, Henry C., 1979. The History of the Telescope. New York, Dover.

I'm sure that some of my colleagues will be only too happy to provide other suggestions. Wayne

From: Gary Thompson

Hi Wayne. A fourth edition of the above was published in 1902. Regards, Gary Thompson

From: Bill McClain

I have a copy of that and have thought of reprinting it. It would be a large amount of work to re-typeset it, so a facimile edition might be best, although not as suitable for online publishing.

I've not yet seen Clerke's _Problems in Astrophysics_. Anyone here have a review? -Bill

From: Owen Gingerich

I keep copies of all four editions because it's interesting historically to see how her text evolves. There is her copy that was being prepared for a fifth edition (never published) at the Whipple Museum in Cambridge, England. It might be an interleaved copy, which would be too formidable for a reprint, but otherwise it would be an interesting copy to have available in a facsimile. OWEN GINGERICH

From: Joe Heafner

Hello. Has anyone else besides me suggested Ginzel to Dover as a Phoenix Reprint? Cheers, Joe Heafner

From: Gent van R.H.

Hi Joe, Do you think that it is likely that Dover will also consider reprinting non-English books? I recall that Oppolzer's Canon of Lunar & Solar Eclipses was once available from Dover but that work is mainly tables and maps and had its German introduction translated into English by Owen Gingerich.

If so, one could easily suggest several more important publications in German, French, Italian, Spanish, Latin and in many more languages.

Perhaps someone (not me, I have too many other commitments at the moment) on HASTRO-L could compile a list of books that most list members find important enough to have reprinted and then send that to Dover - such a request will probably carry more weight than when we all individually submit our requests. Regards,

From: Joe Heafner

I think that's an excellent idea! Cheers, Joe Heafner

SETalk

From: J.S.

Yes, it was. A hard-cover, cloth-bound facsimile edition. The -very long- introduction was, yes, translated by Owen Gingerich specially for that Dover edition, published in 1962. It wasn't a best-seller, as could be expected. I found two copies of the book in a Madrid's bookstore in 1966. When the place closed down in 1979, the two books were still in the shelves. I bought one, that preserve to this day.

To be published, a book must have a minimum of commercial possibilities. It's not the case of Oppolzer's monumental work. Javier Susaeta

From: Bob Garfinkle

Hi List, Many months ago, I suggested that to Dover that they reprint their reprint of Oppolzer's Canon and only received a form e-mail reply. Maybe they'll listen again. Let's hope so. Take care. Robert A. Garfinkle, F.R.A.S. 32924 Monrovia Street Union City, CA 94587 USA E-mail: ragarf@earthlink.net

From: Dennis Duke

and a little over two years ago I suggested to them to reprint O Neugebauer's HAMA, which I cannot find for sale anywhere.

New Web site - www. ecliptomaniacs.com

From: Chris O'Byrne To: Solar Eclipse List

<SOLARECLIPSES@AULA.COM> Date: Sat, 11 Jan 2003 15:39:09

After only 3 years :), the Irish eclipse-chasing group have finally managed to put up a web site. It's at -

http://www.ecliptomaniacs.com/

We are still in the process of gathering people's diaries, pictures and videos, so we expect the site to expand in the coming weeks... Chris.

From: Shivapuja@aol.com

nice site; i will be checking it for update. but, if it's irish, shouldn't it be "eclipt o'maniacs"? (sorry, i couldn't resist.) michael e walton columbus, ohio, usa

SETalk

Green Bailys beads !

From: ccmlt To: SOLARECLIPSES@AULA.COM Date: Sat, 11 Jan 2003 16:00:36

Dear friends, As I told you a few weeks ago after coming back from Australia, it was possible to see that wonderful eclipse just above the horizon at Old Narylco. At second contact, I was looking to the eclipsed sun through my Olympus camera behind an ETX 90 (focal 1250mm). What I saw then was a curious green hue of some of the Bailys beads located on the left of the "crescent". It was then impossible to conclude about this sight, because none of my friend saw them with the naked eyes. But in fact they were recorded on the video. Some of them were green and lasted about one third of a second, but there is more : there was also some blue beads, and even some violet beads. The blue beads lasted about 1/10 sec (2 or 3 frames) and the violet beads lasted 0.04 or 0.08 sec (1 or 2 frames). What do you think of this ? I also added some nice eclipse photo, and a shot of the terrible shadow cone of the moon, with the sun touching the horizon with a 24 mm lens. You can see those curious Bailys bead and other photos here. www.astrosurf.com/carnets-astronome Sincerely, Christophe Marlot

From: Jean-Luc L. J. DIGHAYE

Dear Christophe, In my opinion, you recorded what I call the "natural flash spectrum" i.e. the solar chromosphere dispersed by the differential refraction in our atmosphere. Some months ago, I announced this effect in the present forum, I made a rather detailed theory about it, and I recorded it too. Yet your pictures are much more spectacular than mine, congratulations! Notice that you typically have a blue or violet bead on top of a red one, in line with the theory. The effect may be further enhanced by anomalous dispersion. Please contact me off-line if you need more on the topic. Jean-Luc

From: ccmlt

Dear friends,

Jean Luc : In my opinion, you recorded what I call the "natural flash spectrum" i.e. the solar chromosphere dispersed by the differential refraction in our atmosphere.

I always thought that this phenomenon was exactly like the famous green flash, and due to the last ray of the photosphere behind the moon. In fact, the chromosphere is visible on the images next to the crescent, left or right of the Bailys beads, and then appeared on the same place after the green/blue tint disappeared, or after the Bailys bead disappeared.

> Notice that you typically have a blue or violet bead on top of a red one, in line with the theory.

One think to keep in mind with those images is that the camcorder lenses + tele-extender are not apochromatic, so there might be some chromatic dispersion. That's why the images are far from "perfect". Also, it should be noticed that the colored bead appeared exactly on the top of the Sun where a green flash should have been appeared in "normal conditions". The beads visible on the right of the crescent are not affected by this effect.

> Please contact me off-line if you need more on the topic.

Please, I would like to read more on this subject if you have a moment to send me a few documents. Thanks by advance. ;-))) Sincerely, Christophe

From: Robert B Slobins

I would like to think that what was recorded was more like a 'green flash'. However, I have my images of diamond rings and Baily's Beads and have seen no color in them. Should we not be able to see each bead turn green at the contacts regardless of the eclipse's position in the sky?

I believe that the low altitude of the sun in the sky and the optics have more to do with the color of the beads than any other factor.

SETalk

A great eclipse web page

From: Timo Karhula To: SOLARECLIP-SES@AULA.COM Date: Sat, 18 Jan 2003

Hi all, I would like to point out a great web page for eclipses, transits and occultations, http://eclipse.astroinfo.org/solar/activemaps.html

>From there is a link to a page of information of all solar eclipses between the years 1700-2100 for most major cities in the world,   http://eclipse.astronomie.info/sofi/INTER.HTM

The last time my home town, Västerås in Sweden, had a total eclipse was in 1715. / Timo Karhula

Switch Kudos to Joel Moskowitz

From: Glenn Schneider To: SOLARECLIP-SES@AULA.COM Date: Thu, 30 Jan 2003 02:52:36

For those of you who have enjoyed Apple computer's "switch" commercials (and even if you haven't) you have to see this bit of brilliancy from Joel Moskowitz:

(I assure you, Pat, this IS eclipse related). Its a Quicktime movie but PCers who have not made the switch can get a freeware viewer from: http://www.apple.com/quicktime/products/qt/

To put it in perspective see: http://www.apple.com/switch/   (Joel's original is much higher quality, I compressed it for my server, and it is still ~ 15 Mb, takes a bit to load, but worth the wait. Be sure you have the volume up).

Too bad it was too late for the Superbowl... Glenn Schneider

From: Glenn Schneider

The obviously forgotten URL is: http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/Umbraphile_small.mov Sorry! -GS-

To see a natural flash spectrum, one needs to have a refracting medium that produces a wide dispersion: a prism, a grating ruled with a sufficient density of lines, or possibly raindrops. The lines are very narrow and the spectrum needs to be spread out to resolve them distinctly. Unless the video shows a distinct sequence of a pure red (H-alpha), yellow (He), blue (H-beta) and violet (the rest of the H-series and Ca), with NO intervening colors or continuity of colors, I remain sceptical.

My comment about raindrops: There could be a rainbow at contact time, and that would show at least the H-alpha line. I believe Glenn Schnieder mentioned this in his account of the 1977 cloud-out. This would be quite a spectacular video sequence, especially if the rainbow were very brilliant.

No, I would not risk a rainout of a totality by deliberately traveling to a site where this may happen, and I do not believe that anyone on this list would do likewise. cheers/rbs

From: Jean-Luc L. J. DIGHAYE

I wish to add some comments to Christophe's and Robert's recent explanations on the subject: 1. Yes, Baily's beads and the chromosphere are dispersed by the Earth's atmosphere when the Sun is low on the horizon. This effect, however, is of the same order of magnitude as the atmospheric turbulence and the resolving power of small telescopes, so don't expect pictures showing a broad spectrum and/or well-separated lines. Besides that, a 3-layer slide film has a rather poor rendition of a spectrum: there is little sensitivity in the yellow region, and everything from green-blue to near-ultraviolet is rendered as blue. 2. Yes, if there is noticeable dispersion, blue (strongly attenuated by our atmosphere) should be at the top and red at the bottom. Baily's beads on the left or right side should be less coloured due to the vertical direction of the dispersion. If your lens has *longitudinal* colour (e.g. non apochromatic) you see a given colour surrounded by other colours, not a dispersion effect. If your lens is out of collimation and/or used off-axis you may have *lateral* colour as well, but this is another question. 3. No, Baily's beads should not all be turning green or blue before vanishing, like when observing the green flash, because no fraction of the dispersing element (our atmosphere) is situated between the source (the Sun) and the obstacle (the Moon). Conclusion: I maintain that the colours seen on pictures and videos of low-altitude eclipses just before or after totality are at least partly caused by differential atmospheric refraction - enhanced or sometimes cancelled by turbulence. As to determine which fraction of the rainbow effect is photospheric (Baily's beads) and which fraction is chromospheric (flash spectrum), I'll leave it to spe-

SETalk

cialists... Jean-Luc

From: Robert B Slobins

>Besides that, a 3-layer slide film has a rather poor rendition of a spectrum: there is little sensitivity in the yellow region, and everything from green-blue to near-ultraviolet is rendered as blue.

That is why I always use Fuji print film. In 1994, I tested all available consumer and professional print films available in New York City. Fuji professional films render the spectrum more accurately than any other brand.

The film also has superb latitude. In the heat of the contact moment, the last thing I need to worry about is how long the exposure must be. Slide film, except possibly the Provia 400F that some aurora photographers love, require precise expo-sure or else..

>As to determine which fraction of the rainbow effect is photospheric (Baily's beads) and which fraction is chromospheric (flash spectrum), I'll leave it to specialists...

I still am sceptical about one's obtaining a flash spectrum from atmospheric refraction. However, if Glenn Schneider or Jay Pasachoff can help us out with this question, I for one would appreciate it. This does not mean that I will leave my diffrac-tion gratings home for the next eclipse. ;-) cheers/rbs

How Late the Moon

From: Dr. E. C. Krupp To: HASTRO-L@LISTSERV.WVU.EDU Date: Sat, 04 Jan 2003 02:21:55

Joanne Conman's comment (29 December 2002) on the moon's phase on the 15th day of the Egyptian lunar month deserves a recount.

Because the synodic period of the moon is approximately 29.53 days, about 14.76 days separate the moment of astronomi-cal new moon (conjunction with the sun) from astronomical full moon (opposition from the sun). Although under felic-itious conditions, the first (waxing crescent) may be seen on the date of new moon, it more likely will be first spotted on the next evening. Counting days from even the earliest waxing crescent would usually place the latest full moon on day 14, and it is more reasonable to expect the full moon to fall on day 13.

Fifteen evenings after the first waxing crescent will, then, overshoot the day of astronomical full moon. Stepping back two days from the first waxing crescent, however, will most likely start the cycle on the first day of invisibility, a day after the last waning crescent and also the likely day of astronomical new moon, and that count usually puts full moon on day 15. In phase and counting, E.C. Krupp Dr. E.C. Krupp, Director eckrupp@earthlink.net Griffith Observatory phone: (323) 664-1181 2800 East Observatory Road fax: (323) 663-4323 Los Angeles, California 90027 http://www.GriffithObs.org

From: joanneco@MAINE.RR.COM

Dear Ed Krupp and Herb Solinsky, Maybe I have misread Parker, but my understanding is that last visibility is not synony-mous with the astronomical conjunction. The same variations come into play with last visibility before the conjunction as with first visibility after the conjunction. If the fifteenth day is meant to be a midpoint, it may not have to occur with the full moon. If it is meant to mark the full moon, then counting from last visibility would find full moons occurring too early. There are also issues with the names of other lunar days. The first quarter is Day 7 and the last quarter is Day 23. If these two are moved forward by counting from last visibility, their names will not match their phases.

An important question to be considered here is when did the Egyptians actually celebrate a festival? For example, was the full moon feast actually on the day of the full moon, or afterwards? One problem with studying festivals is understanding how a given culture understands time. In our own time-obsessed culture, rituals are rarely precise. The acknowledgement of the ritual by the celebrants matters as much, if not more, than any objective, observable event that may be associated with

SETalk

the holiday.

If the fifteenth day was meant to mark the time just after the full moon, when it was fairly certain the full mo on had occurred, then counting from first visibility, rather than last, makes more sense IMO. Joanne Conman

From: Herb Solinsky

In the book _Revolutions in Time: Studies in Ancient Egyptian Calendrics_ edited by Anthony J. Spalinger (San Antonio, Texas: Van Siclen Books, 1994), Ronald A. Wells, the author of the first chapter (pp. 1-37) titled "Re and the Calendars", wrote the following on page 15 (I have inserted square bracketed notes to aid readers who are new to this material):

"The Egyptian lunar month in the calendar of record [= known from surviving data] has been shown by [Richard A.] Parker to have begun on the morning on which the waning lunar crescent could no longer be seen above the eastern horizon at dawn. Frequently, but not always, this day corresponds with the day of [the astronomical] New Moon [conjunction]."

Note from the above quote that the morning of the old crescent does NOT begin the Egyptian lunar month, but rather the morning that begins 24 hours later than the old crescent, when no part of the moon is seen. The reason for this is clear if one considers that when a person looks at a moderately thin crescent in the morning facing east, one is often not sure whether it will be seen on the morning 24 hours later, i.e., one does not know whether it is the old crescent (unless it is extremely thin so that by experience one has confidence that it will not be seen the next morning). They apparently wanted to know the first day of the month when it began. For the ancient Egyptians the day began in the morning when the lunar month began. Further-more, Wells states that the first day of the Egyptian lunar month is frequently the day that contains the conjunction. There are occasional instances in which the conjunction can occur about 16 or 17 hours after the old crescent is seen, so that the conjunction may occur within the Egyptian day that PRECEDES the first day of the Egyptian lunar month. Of course the conjunction may also occur AFTER the first day of the Egyptian lunar month.

Joanne Conman is certainly correct in the following statement: "The same variations come into play with last visibility before the conjunction as with first visibility after the conjunction."

In many of the Egyptian lunar months, the full moon occurs after lunar day 15.

Joanne Conman asks about the lunar date of the Egyptian festival often associated with the full moon. While Egyptian festivals has never been one of my interests, this question is apparently addressed in the book _Civil Calendar and Lunar Calendar in Ancient Egypt_ by Leo Depuydt (Leuven, Belgium: Peeters Publishers, 1997). The bottom of the quotations below shows that _smdt_ is a feast. On page 150 Depuydt wrote:

"The transcription _smdt_ for 'full moon' is not certain, but it will be used here for lack of an alternative that is. According to the extant lists of the names of the days of the lunar month, _3bd_ is Day 2 and _smdt_ is day 15. The distance in time be-tween _3bd_ and the following _smdt_ therefore ought to be 13. The distance between _smdt_ and the following _3bd_ ought to be 16 if the lunar month has 29 days and 17 if the lunar month has 30 days. However, in Papyrus Berlin 10282 recto (Luft 1992: 116), an instance of _3bd_ is dated to III _3ht_ 13 and the 'full moon' (_smdt_) that follows it in the same month is dated to III _3ht_ 29. The distance between the two dates is 16 days, not 13."

"In the same papyrus, an instance of _smdt_ is dated to Day 29 of a month which is lost but which must be I _3ht_. The men-tion of lunar Day 2, falling on II _3ht_ 14, immediately follows. The feast called _jhhj_, which is always celebrated in I _3ht_, immediately precedes. The _3bd_ that immediately follows this instance of _smdt_ is dated to II _3ht_ 14. The distance in days between I _3ht_ 29 (_smdt_) and II _3ht_ 14 is 15 days. This is less than the distance of 16 or 17 days that is required between _smdt_ (Day 15) and the following _3bd_ (Day 2) if the lunar calendar follows a rigid calendrical scheme (on these problems, see also Luft 1992: 196-97). Does this mean that _smdt_ 'full moon' was determined by means of observation - somewhat randomly because full moon cannot easily be assigned to a given day - and not by the artificial scheme of the se-quence of lunar days? If so, this is an argument against the existance of a very sophisticated lunar calendar."

"In Papyrus Berlin 10132n, the lunar feasts of _3bd_, lunar day 2, and _smdt_, lunar day 15, come in sets of 12 (Luft 1992:

SETalk

100 and 232). It is not clear what this exactly means."

Do not expect me to do write more on Egyptian feasts because that is not my interest; I just happen to have these sources available. Herb Solinsky near Dallas

From: joanneco@MAINE.RR.COM

from the above quote that the morning of the old crescent does NOT begin the Egyptian lunar month, but rather the morning that begins 24 hours later than the old crescent, when no part of the moon is seen.

I am familiar with this work. I don't agree with Spalinger's assertion that the day on which the lunar crescent can no longer be seen frequently corresponds with the day of the conjunction, based on my own observations of old and new crescents. I was often unable to see the old crescent more than a day before the conjunction; IOW, the conjunction took place on the second day of invisibility, not the first. Therefore, it one begins counting on the first day of invisibilty, that may begin the month too soon. I also found that it is much, much easier to see the new crescent than the old.

>Joanne Conman asks about the lunar date of the Egyptian festival often associated with the full moon.

Actually, I did not ask about this. I made a statement. While you may not be interested in Egyptian festivals, there's little point in studying anything sky-related in Egypt if one ignores Egyptian texts and culture, as so many archaeoastronomers do. Joanne Conman http://home.maine.rr.com/imyunnut/Index.html The Secret Chambers of the Sanctuary of Thoth

From: Raoul Mårtens

Actually, I did not ask about this. I made a statement. While you may not be interested in Egyptian festivals, there's little point in studying anything sky-related in Egypt if one ignores Egyptian texts and culture, as so many archaeoastronomers do."

Comments:

1st para
a) As Herb Solinsky pointed out in his e-mail of Dec. 22, 2002: "The only conjunctions that are visible are solar eclipses".

b) Ed Krupp further pointed out in his e-mail of Jan. 3, 2003:: "Although under felicitous conditions, the first (waxing crescent) may be seen on the date of the new moon, it more likely will be first spotted on the next evening."

c) Herb Solinsky in a 2nd e-mail of Jan. 4, 2003 reviewed three modern conjunctions and in a 3rd e-mail Jan. 5, 2003 extensively accounted for the research of Egyptian lunar calendric notations.
>From all this is apparent that the moon's period of invisibility amounts to one or two days before and/or at its conjunction, that some solar eclipses occur before the new crescent is visibile and that all these phenomena were known in ancient Egyptian culture.

d) In Egypt some kind of lunar calendar was at a very early date replaced by a solar calendar of 12 months of 30 days, perhaps in order to reduce confusion when trying to predict lunar events.

e) As the locations for Ms Conman's lunar observations are not known it is fair to recall that the moon's period of invisibility is one day at the equator but often two days further North and that in antiquity visibility likely was better than today.

2nd para:
a) Plutarch mentions a celebration of ancient Egyptian knowledge of the lunar conjunctions and their relevance for solar eclipses:

"In the sacred hymns of Osiris they call upon him who is hidden in the arms of the Sun; and on the thirtieth day of the Egyptian month Epiphi (they) celebrate the birthday of the Eyes of Horus, at the time when the Moon and the Sun are in a perfectly straight line." (Plutarch: Isis and Osiris, Moralia V, p. 127, Loeb Classical Library, Harvard University Press 1936)

SETalk

Re. the interpretation, it ought to be clear that the one "who is hidden in the arms of the Sun" cannot plausibly refer to anything but the node, "the arms of the Sun" being the ecliptic = the sun's orbit in which the nodes are the geometric points where the sun's and moon's orbits cross, and the only points where eclipses occur. The choice of "the thirtieth day" of some month for celebration of these matters seems symbolic for the moon's synodic period 29.53 days between conjunctions, called "birthday of the Eyes of Horus" (Eyes of Horus = sun and moon), fundamental for eclipse-occurence, in antiquity probably the most important astronomical phenomenon. Because in astrology 'conjunction' had a sexual shade, "birthday" may be a misrepresentation of a word meaning 'coitus'/'conception'. As Neugebauer in A History of Ancient Mathematical Astronomy does not mention Plutarch's text in question, information on interpretations of it in other similar sources is welcome.

b) Ms Conman's criticism of "archaeoastronomers" for ignoring "Egyptian texts and culture" may be seen as disqualifying since Ms Conman herself ignores Plutarch's relevant text, cited above. Sincerely Raoul Martens

From: joanneco@MAINE.RR.COM

>>From all this is apparent that the moon's period of invisibility amounts to one or two days before and/or at its conjunction, that some solar eclipses occur before the new crescent is visibile and that all these phenomena were known in ancient Egyptian culture.

non sequitur

>d) In Egypt some kind of lunar calendar was at a very early date replaced by a solar calendar of 12 months of 30 days, perhaps in order to reduce confusion when trying to predict lunar events.

unsubstantiated speculation

>e) As the locations for Ms Conman's lunar observations are not known it is fair to recall that the moon's period of invisibil- ity is one day at the equator but often two days further North and that in antiquity visibility likely was better than today.

It would be more prudent to find out where "Ms Conman's" lunar observations were made, as well as to recall that Egypt is not on the equator. There is also no reason to assume that visibility was better in antiquity than today unless you know all the variables. You don't.

>b) Ms Conman's criticism of "archaeoastronomers" for ignoring "Egyptian texts and culture" may be seen as disqualifying since Ms Conman herself ignores Plutarch's relevant text, cited above.

Plutarch was Greek, not Egyptian. You have thoroughly misunderstood his allegedly "relevant text," evidenced by your unusual "interpretation."

Joanne Conman finds it peculiar that she is continually discussed in the third person when she is a subscriber to this list. She wonders if there is also a secret handshake…

From: Axel Harvey

So it isn't just me! I was tempted to ask why the lunar node was the only possible explanation for "in the arms of the Sun". But...I hope we can avoid secret handshake theories here, or reasons for them.

SETalk

Choosing an eclipse location

From: Egan Mark To: SOLARECLIPSES@AULA.COM Date: Tue, 14 Jan 2003 08:44:25

Hey folks-- All of this discussion on the March 2006 eclipse has got me wondering: how does everyone choose an eclipse site?

We can actually split this into 2 categories:

1. picking a general region and
2. picking a specific site

Let's start w/ the first. Each eclipse path may be very narrow, but they are usually several thousands of miles long. At some, of course, we don't get much choice (2005 total) but at others we have lots (2006 total). So each of us has to choose at least the area where we're going to travel.

Some general factors in this decision seem to be (and all of these actually have been mentioned in the 2006 discussion):

(in no particular order)

-- attraction of the region (what it has to offer to us before and after the eclipse)

-- duration of the eclipse

-- weather prospects

-- unique aspects of an eclipse (central eclipse at sunset or sunrise, etc.)

-- unique ways of viewing an eclipse (airplanes, balloons, camels...)

Once one picks a region, how does one pick a specific site? Factors that come to my mind for this include:

-- duration of central eclipse (view from near centerline for max duration or from edge for max. edge phenomena)

-- view with crowds or away from crowds

-- for the photographers: that really cool foreground subject

-- mobility factors (less likely to move if you're in the middle of a big city)

-- weather- affecting landscape features (mountains, lakes, coastlines)

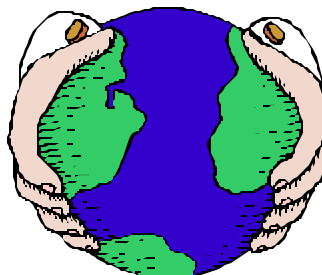I don't necessarily use all of these; they are just what eclipse chasers seem to use. Is this correct?

Did I miss anything? What factors do each of you use? In what order do you put them in? Do you use the same criteria if it's total or annular?

Looking forward to the answers.

Mark Egan

BTW, what factors do I use? I'll tell you on my next post......

From: Peter Tiedt

SETalk

I think there are only two factors (well for most folks anyway)

1. Weather
2. Duration

Then, the others depend on what els e besides eclipses trips your trigger. Peter

From: GJMadden

I agee with Peter. I would only reverse the order.

I would always seek maximum attainable totality and then weigh the weather prospects, moving away from point of greatest eclipse only to gain probability of clear sky. The can be easily graphed as a function of duration over weather prospects. George Madden

From: KidinVS@aol.com

oops... there are a few other factors that I use in choosing a site. Whenever possible, I would choose a spot high up... a hilltop, mountain, mesa... this allows the best perspective to see 2 things...the 360 degree sunrise, and the oncoming, and departing shadow. Lastly, as our travels usually take us to an area where there are many people much less fortunate than us, I leave something behind.... clothing, some small amounts of money as a gesture of thanks, and a big thank you and smile. Rick Brown EclipseSafaris

From: Jay.M.Pasachoff@williams.edu

I have other factors in choosing a site. Personal safety is paramount, including the ability of my government to help me if something should go wrong, so I am not considering going to Libya.

Since I have science experiments that need stable power and that should be set up over a week in advance, I sacrifice centerline time for logistical advantages. Jay Pasachoff

From: Govert Schilling

In traveling with (small) groups of lay people, I think clear skies are more important than duration. After all, if you're witnessing your first TSE, even a 5-minute eclipse is much too short, and you won't notice much difference in your experience between 1.5 and 2 minutes, for example. However, if you travel to a remote location to see an eclipse and you're clouded out, that's really a big disappointment... --Govert

From: Mark Alsip

KidinVS@aol.com wrote: But there is a very important factor to consider that no one has addressed except one other person... that is the ability to be mobile.

Mobility was a huge factor for my first TSE (Feb 1998 in Aruba). I went independently, buying tickets with my girlfriend on a cruise ship that also hosted a very large tour group.

On E-day, I was shocked when that group got off the ship and plunked down all their equipment dock-side in Oranjestad. We heard the logistics of moving the 500+ (!) clients a few miles south to Seroe Colorado were just too difficult, even though prospects were better there. We happily grabbed a taxi, found a quiet beach at the south of the island, and enjoyed 26 seconds more totality than the folks who couldn't move.

26 seconds more totality... an eternity! simply because we could move a few miles.
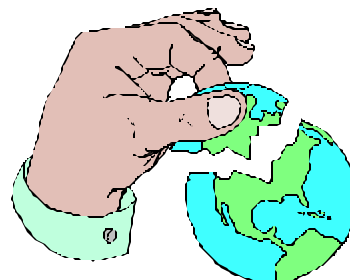
SETalk

We also got lucky and were the first to be in the clearing of a storm that'd blow in from Venezuela... people north of us missed first contact and even had clouds during totality. We had clear skies but could see their clouds. I'm sure they could see our
black/blue sky.

I've happily travelled with tours since then, of course, and am not knocking them at all. I'm simply agreeing with Kid-inVS@aol.com, make sure that contingencies, IF POSSIBLE (not a lot of room to manouver in Antarctica, I presume), have been considered in case your guaranteed sunny sky isn't so sunny. We heard it *never* rained on Aruba. I still remember those hundreds of poor souls covering their scopes dockside in Oranjestad as the drizzle started...

From: GJMadden

Jay's point is well taken for GROUPS where issues of personal responsibility are certainly a major concern.

However, many people traveled to Angola in 2001 and I have not heard of any unfortunate sequels. Similarly for both Iraq and Iran in 1999.

Admittedly, travel to certain locales may constitute a high risk venture but for people willing to take that risk the return may very well be worth it. Accordingly I would never try to disuade people who know what the risks are.

Also, most of us don't carry gear requiring seven days to stabilize. George Madden

From: GJMadden

I agree. My original point was not well stated. My calculation would always be based on a *balance* of the two. However, as I discovered in Venezuela, the loss of even three seconds of totality -- for an umbraphile -- is heartbreaking. At least it is for me.

Yes I will sacrifice duration for an increase in probability. But I will also begin my planning with maximum duration in mind, later tempered by prospects.

I hope I have corrected my viewpoint.

From: Peter Tiedt

This is what I did for TSE02 - I was always uncomfortable with lowveld (below 600 m) summer weather as anything is possible, and if clouds are present, they are almost invariably blanket. On the Highveld (> 800m) summer mornings tend to be clear with afternoon thunderstorms. The path was only above 800m westwards from about midway between Beit

Bridge and Bulawayo. Hence my decision to abandon my home country and head for totality in Zimbabwe with all it's perceived perils. In the end a correct decision and a sacrifice of about 6 - 7 sec of totality, but crystal clear sky. Mobility also played a part in this choice as almost everywhere else the roads (Botswana and Namibia) were transverse to the path, while in Zim the roads were parallel to the path, allowing a run for clear skies while staying in the path.

So my reasoning for a location is based firstly on clear sky probability, then duration, with mobility being a factor. Remembering all these options, I will then look for other items that would interest me in my chosen area - after TSE02 I visited Great Zimbabwe, which was long outstanding.

For 2006, I am interested in the Libyan option (weather and duration); mobility is difficult, but unlikely to be needed. I will knock off Egypt at the same time (pyramids, Nile Cruise and Valley of the Kings), and possibly also the Roman ruins in Libya and the WWII battlefields. Of course the Valley of the Kings is also an ideal recce for 2027 ;-).

From: Jay.M.Pasachoff@williams.edu

My point is meant for INDIVIDUALS. Just because 10 or 100 or 1000 people travelled without incident to Angola or Iraq in the past doesn't mean that you won't be the one arrested. Lori Berenson remains in prison in Peru with a 30-year sentence (reduced from life imprisonment) and you never know when you might be the one to come out on the wrong side of some accident.

My staying longer at a site is independent of the fact that you can have an accident en route to even a site where you will stay an hour. There is nothing worth risking life imprisonment or worse in a country in which your home country has no representation or influence. Jay Pasachoff

From: Geoff

Hey, Having only observed one TSE, I am not sure I am in a position to comment, however, I did have some reflecting thoughts after viewing the recent eclipse from Ceduna.

Prior to the eclipse, I was definately set on going to Ceduna, as opposed to other outback locations. Why? Duration. There was no way I wanted to lose 5 seconds of totality by going in land. However, as everyone knows, there WERE clouds on eclipse day, and WERE clouds during totality. Not just a few clouds, a lot. We were extremely lucky. Whilst I do not regret choosing Ceduna, if the same eclipse were to pop up again (well, it nearly does in 2030), I would, without a doubt, choose an inland location. The sun dashed in and out of clouds for us, and even just minutes before totality it was covered up compeltely. And with clouds like this, you cannot simply "dodge" - they are moving way too fast. The worst thing

SETalk

was that we KNEW that would most probably be the case! It was a known fact Ceduna would likely have coastal cloud.

Having never seen an eclipse I thought that I would notice every second go by.. but I didn't, it just all went so fast. In future eclipses, I would DEFINATELY opt for a spot with better weather prospects. Obviously, the most recent eclipse was a slightly different case, the difference in duration was only of the order of 5 seconds. With other eclipse, different locations would differ in duration by the order of minutes - a significant amount. However, I still believe that holiday and travel aspects aside, when it comes down to it, what you want to see is Totality, and weather should definately come first.

Now obviously I believe there are exceptions to the above. Sometimes you may not have much of a choice where to view from, if the path of totality only crosses a tiny portion of land (that is, assuming you want to view from land, which many of us do). And you begin to become extremely restricted if you would like to see totality close to sunrise/sunset - if these regions do not fall over an optimal viewing location (in terms of weather), I highly doubt you would risk everything, JUST to see the sunset/sunrise eclipse. On the other hand, if the regions ARE in an optimal viewing location (as they were last month), then you would have no problem.

The other aspect which was mentioned by Mark, was chosing a specific site (within a "general region"). I believe it is sometimes hard to weigh up the options. Personally I would rather a somewhat private and uncrowded site, purely so that I wouldn't lose concentration and get carried away. But then again, crowded sites would provide a really awesome atmosphere, and lots and lots of screams and hooting when totality arrived. And more importantly than crowds, I would like to choose a nice spot for widefield photography. Telephoto shots can be taken from any location, however I believe it is the widefield shots that are the most dramatic - they zoom out and reveal the atmosphere, the landscapes, the colours, and the surroundings, and if you can find a beautiful location to shoot totality, the shot will also be visually stunning to all, whether they have an interest in eclipses or not. --Geoff

From: Crocker, Tony (FSA)

This is a very subjective topic, but I think there's a framework of considerations. Different people may have different priorities.

1.) For most people cost and convenience will be the most important factor. Both Europeans and North Americans are experiencing a particularly challenging decade in this regard. 2003 is an obvious example; it's way beyond the budget of most people. 2001 and 2002 weren't that easy either. Many of us chose one but not the other.

2.) The corollary of 1.) is that as the cost/time commitment goes up, Mark Egan's point about "attraction of the region (what it has to offer to us before and after the eclipse)" becomes more important. How disappointed will you be to travel thousands of miles and spend thousands of dollars if you are clouded out? Our 19 days in southern Africa would have been a highlight vacation even if eclipse weather had not been cooperative.

3.) Then there are the characteristics of the eclipse which have consumed most of the discussion.
A. I'm in the weather camp for first priority. Mobility gives a bump to the weather odds.
B. Duration is next, but the tradeoff with weather is not always clear. I think giving up 5 seconds for Outback vs. Ceduna or Zimbabwe vs. Kruger is an easy decision. 79 seconds in Zimbabwe vs. 26 in the Outback with 10% better weather odds was a close call IMHO. The tourism attractions of Africa (I had been to Australia in 1997) swayed my decision.
C. Viewing location: land is better than sea which is better than air. On land consider the aesthetic points Rick Brown mentioned also.

The next 3 eclipses illustrate the above points.

2003 is too expensive. I'll pass.

2005 is sufficiently difficult (short duration, no land option) that "the rest of the trip" will be my overriding consideration. If someone puts together a Tahiti or Galapagos cruise in the ballpark of what these cruises normally cost, I'll go.

2006 is a definite. Long eclipse, Egypt, Turkey and eastern Med cruise all desirable options, plus I get to ski the Alps first.

From: GJMadden

Excellent comments. You make an interesting point about time. My first eclipse was also an experience of time compression. So severely so that I completely abandoned my photography program in favor of simple observing. It was over in was seemed like seconds rather than minutes. Yet after just minutes, I was utterly exhausted (mentally, emotionally). Later I was wondering how I could have observed and done justice to even a minimalist photography program (everyone has to learn).

Which is part of my point in seeking duration as the first consideration. If I want to observe in the aesthetic context and I want to do some serious documentation then a whole lot of things have to happen in a very short period of time (one reason veteran observers will strongly advise NOT doing photography the first time out -- good advice!). And why well thought out programs and lots of practice before leaving home is equally important.

SETalk

Having said that, I understand that 30 seconds of clear skies is better than 35 seconds of cloud deck. But I firmly assert that 35 seconds of totality is better, FAR better, than 30 seconds of totality. As you point out, "what you want to see is Totality". I know I do. And the more of it the better. That's why I should have moved a few kilometers south in Venezuela and picked up an additional 2 seconds. Had I known then what I know now, I would have (and, ironically, had slightly better 'seeing' too).

Yes, weather/climate MUST be a fundamental consideration. So look for the location where the curves of longest totality and maximu m acceptable obscuration risk cross and go there. Individuals will differ on this last, but that is a subjective assessment since, with few exceptions, weather is what you get, climate is what you expect. I think umbraphiles understand this empirically better than anyone.

Libya presents, apparently, not only excellent weather prospects, but my first opportunity to be situated at the point of maximum eclipse. To be sure, I await the Espenak/Anderson analysis before making a commitment based on weather prospects, but not even Fred can change the PME (well maybe he can, but he hasn't yet told me). George Madden Rochester New York

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 EclipseSafaris

From: Robert B Slobins

Let me chime in with a story: After the Bolivian eclipse, I met a tour oraganiser from Newton, MA; some of you may know his nme which I do not recall. We discussed the 1995 eclipse and where to see it.

His remark: "I would rather see 41 seconds of clear totality than two minutes of dark clouds."

Although that eclipse was surprisingly visible across the entire track on land, including Calcutta and IndoChina, I was not sorry to be in Dundlod for the 41 seconds.

Remember, our goal is to see the eclipse.

Regarding Libya--Kaddhafi is mellowing out. He made some nasty remarks about America in the presence of a beauty queen and she started to cry. That got him to feel sorry.

His son is big into Italian football and may have a controlling interest in one of its top league teams. So, it does not seem that he is totally anti-Western.

To be a politician, you need to make yourself look good by making someone else look bad. You also need to show that you are the biggest bad guy around. It is show business for the audience who laps it all up. Kaddhafi is no different than any other, except by his methods.

I would not be so concerned about the safety of my equipment in Libya or any other Islamic country. The penalty for theft does not include probation ;-) I would be more concerned with the inspectors in the USA. cheers/rbs

From: Evan Zucker

I disagree. I certainly want to see totality, but, IMHO, there is not much difference between 30 seconds and 35 seconds of totality. Obviously, there is a 5-second difference, or 16%, but I would bet most observers would be hard-pressed to tell the difference between a 30- and a 35-second eclipse. The only exception would be photographers following a carefully choreographed routine, such as using a program like Umbraphile.

While I certainly like seeing totality -- I've done so 5 times, including once under clouds with the author of Umbraphile -- for me totality is just part of the overall total solar eclipse experience. I enjoy the anticipation, seeing first contact right on time, the growing darkness, the weird lighting, creating projection crescents, seeing shadows sharpen, searching for the umbra and shadow bands, the shouts of the crowd, seeing the stars and planets come out, the 360 degree sunset, and so on. Most of those events have nothing to do with totality's duration.

Perhaps I'm a minority, but safety and good weather prospects are my priorities before totality duration. Fortunately, weather prospects and duration coincided in 1991 -- I still don't know why so many people went to Hawaii instead of Baja. Evan H. Zucker San Diego, California

From: GJMadden

Actually it's closer to 14% but why quibble? I would take that bet if you exclude

casual observers who travelled less than 8 hours to observe total-

SETalk

ity.

> Perhaps I'm a minority, but safety and good weather prospects are my priorities before totality duration. Fortunately, weather prospects and duration coincided in 1991 -- I still don't know why so many people went to Hawaii instead of Baja.

Because they didn't draw that curve to find the point between duration and acceptable risk. George Madden Rochester New York

From: Evan Zucker

35 seconds is 16.7% more than 30 seconds, and 30 seconds is 14.3% less than 35 seconds. -- EVAN

Lori Berenson indulged in some very curious activity in Peru. I do not think this is a reason to avoid travel to Peru.

On the question of Libya, there is one good reason to consider it, beyond duration of the eclipse, rather than Egypt. On a visit to Egypt a couple of years ago, I was struck by the prevalence of high thin cloud over the whole Nile valley north of Aswan. It is blamed on evaporation from Lake Nasser. It may well be possible to avoid this by going a sufficient distance west or east of the Nile.

The dust from the Sahara made the pre-eclipse sky rather white off Mauritania in 1973. We could see all the planets and many stars, but the sight was not nearly as dramatic as if the sky were clearer. Gerry

Beauty queens and eclipse paths

From: Mark Alsip To: SOLARECLIPSES@AULA.COM Date: Wed, 15 Jan 2003 18:50:19

Robert B Slobins writes: Regarding Libya--Kaddhafi is mellowing out. He made some nasty remarks about America in the presence of a beauty queen and she started to cry. That got him to feel sorry.

Actually, she was crying over the horrors supposedly inflicted on Kaddafi by her country. This was part of a strange PR stunt where Libya hosted a beauty contest over the Internet. The contestants, including many from countries to which Libya is now trying to warm relations, went to Libya and met Kaddafi for the judging. The American contestant has now been given a Libyan passport and made an honorary ambassador to the USA:

http://news.bbc.co.uk/2/hi/not_in_website/syndication/monitoring/media_reports/2635169.stm

Before you (rightly) ask what this has to do with eclipses, I'll answer:

My suspicion (hope) is that such publicity attempts will continue into 2006. Libya would have a lot to gain by images of foreign multitudes safely enjoying totality and all the other wonders the country obviously has to offer. The eclipse will certain get far more world press than the beauty contest. Based on what I've seen recently, I would expect them to go all-out in publicizing the event and trying to draw people there. Kadaffi certainly enjoys attention. I doubt, however, that the USA would lift the travel ban for its citizens. And my legs are too hairy to win a beauty contest. So I'll still probably be in Turkey.

From: GJMadden

Mark Alsip wrote: "And my legs are too hairy to win a beauty contest. So I'll still probably be in Turkey."

Maybe not. About your legs I have no comment, but I have been following the Kadaffi saga for some time and clearly he is trying to "warm relations". It is well known that he is an interlocutor in efforts to grant Saddam's family -- and perhaps the old man himself -- safe haven if Saddam ends up seeking exile. The US Department of State is strongly encouraging his efforts (via back channel).

So, as I suggested before, Libya may not be out of the question for Americans three years from now. I, for one, am keeping my fingers crossed for reasons already stated that the entire eclipse community will be welcomed in Libya and treated well. Dreaming? Perhaps. But I'm an optimist. George Madden

SETalk

From: Robert B Slobins

>Actually, she was crying over the horrors supposedly inflicted on Kaddafi by her country. This was part of a strange PR stunt where Libya hosted a beauty contest over the Internet. The contestants, including many from countries to which Libya is now trying to warm relations, went to Libya and met Kaddafi for the judging. The American contestant has now been given a Libyan passport and made an honorary ambassador to the USA: I am sure that we can make enough snide remarks about this, inapporpriate to SENL

>My suspicion (hope) is that such publicity attempts will continue into 2006. Libya would have a lot to gain by images of foreign multitudes safely enjoying totality and all the other wonders the country obviously has to offer. The eclipse will certain get far more world press than the beauty contest. Based on what I've seen recently, I would expect them to go all-out in publicizing the event and trying to draw people there. Kadaffi certainly enjoys attention. I doubt, however, that the USA would lift the travel ban for its citizens. And my legs are too hairy to win a beauty contest. So I'll still probably be in Turkey.

Another consideration: The 2006 eclipse will be near minimum. I would expect to see L O N G equatorial streamers. They will be best viewed at elevation, which Turkey certainly has.   I am sure that Kaddafi would roll out the 'red' carpet to eclipse chasers. Two years later, the Chinese will do the same for the Olympics and eclipse chasers. Mugabe behaved himself for the last two. Bottom line: These people will be on their best behaviour at eclipse time. cheers/rbs

Reminder to all SEML subscribers

From: solareclipsewebpages@btopenworld.com To: SOLARECLIPSES@AULA.COM Date: Wed, 15 Jan

Dear SEML subscribers, Quite often the rules we have set up for this mailing list, are not followed. We do understand that eclipse chasers are concerned about their safety during their trips. Economical and political situation however, can NOT be discussed on this mailing list. The 2006 eclipse has been mentioned a few months ago. Again, as that time, we face again cross mailings about political issues. And ... it goes on and on ...
Once again I want to post you the SEML Rules you all agreed on. Please take the time to read. If you can not agree or you have comments, please send me a message in private (NOT on the SEML):   SEML subscribers agree to

the following basic rules designed to maintain SEML as an interesting and lively place for both amateurs as professionals.

- Do not send large files. For the convenience of the subscribers, there is an automatic filter on the size of the messages (50K).
- Send plain text, not in html or any other format. Watch your settings.
- Do not send any attachments.
- All messages should be posted in English.
- Unsubscribe during your holidays or do not use auto replies or confirmation of receipts.
- Do not send <Thank You> or <Best Wishes> messages to the entire list.
- Personal messages should not be send to the whole list.
- Problems with WebPages or private e-mail addresses, info about virus files or any other non-solar eclipse related messages are not allowed on the SEML.
- Do not go on and on about certain topics. It might bore the other SEML subscribers after a while.
- If you change your e-mail address, please unsubscribe with your old address and re-subscribe with your new address. If you have problems, please feel free sending a message to the list owner.
- Do not use false names, aliases or nick names to subscribe to the SEML.
- In an ideal world, everybody behaves respectfully with regard to the work and messages of other people in the community.
- Avoid political and religious messages and conflicts. Keep messages solar eclipse related.
- No harassing, threatening or stalking to other SEML subscribers.
- SEML subscribers may not transmit or announce material that is obscene, fraudulent, harmful, abusive or hateful. Additionally, no material that is pornographic or that is intented to offend or attack other SEML subscribers will be tolerated.
- We tend to be optimists and we think you won't have any problems following these simple guidelines of mutual respect and descent conduct.
- The SEML Owner can not be responsible for the contents of any material posted on the SEML.

Remind we have all kind of nations, countries, religions and political directions on our SEML. Do respect eachother and ...

... and ... keep those solar eclipse related messages coming ... Best regards, Patrick

SETalk

There will be a total eclipse in the skies over Europe ...

From: Daniel Fischer To: SOLARECLIPSES@AULA.COM Date: Wed, 15 Jan 2003 21:14:55

... at around 23:40 UTC this Friday (Jan. 17) - and that's no joke: The French-German TV channel Arte (available through several TV satellites all over Europe) will once again broadcast the famous movie "Barrabas" which was shot in part during the total eclipse over Italy in 1961. The eclipse shots are amazing and are used between the minutes 10 and 15 of the movie - if it starts on time at 23:30, you can see the eclipse between 23:40 and 23:45 UTC on Jan. 17 (0:40-45 CET on Jan. 18). Most are wide-angle, but there are even a few seconds shot with a longer focal lenght; some coronal streamers can be discerned.

The Barrabas case was discussed here in about 2000, and someone pointed out a detailed article in an astronomy magazine about the cinematograhic challenge - I've tried in vain to retrieve this discussion; does someone have the reference handy? Regards, Daniel

Links: http://web.archive.org/web/20010622183307/andreaplanet.com/italy is about a famous (?) still photo taken on the set during the eclipse; the original web site is long gone, but thanks to the magic of the "Wayback Machine" here it is reborn ... http://www.gocollect.com/product_display/products/product_page.asp?id=27143&refcode=affiliate-1161 shows the original movie poster - which apparently shows a total eclipse, although not the one from 1961

http://www.ciashop.com.br/eclipse/product.asp?sku=xx5848&dept_id=10 is an offer of the movie on DVD in Portuguese - by a Brazilian company called Eclipse Films ...

From: Jean Marc Larivière

I found two articles about the 'Barabbas eclipse' of February 15, 1961. The first article, Totality, Cinema and Crucifixion, appeared in Astronomy, Nov. 94. It quotes an interview with Dino de Laurentis, the film's producer, which appeared in the New York Times on Oct. 7th, 1962 and is entitled A Producer's Siege of Barabbas. Both articles are informative. A later issue of Astronomy, quite possibly that of Dec.94 contains a letter to the editor and makes a few corrections to the initial Astronomy article. The decision to stage and shoot the crucifixion scene during the eclipse was not part of the original plan, but once told about it Fletcher and his director of photography decided it was worth the risk. They used three cameras. One with a telephoto lens was used to shoot the eclipse itself. A second camera framed a close-up of the cross on which Christ was crucified. And a third was a wide shot of the three crosses and the eclipse. Jean Marc Lariviere

The excitement of eclipses

From: Jay.M.Pasachoff@williams.edu To: solareclipses@aula.com Date: Wed, 15 Jan 2003 12:35:26

Someone just wrote: "But I firmly assert that 35 seconds of totality is better, FAR better, than 30 seconds of totality. As you point out, 'what you want to see is Totality'."

I'd be prepared to argue that point. I think what we want to have is the whole experience, with the sky getting dramatically dark in the last few minutes, the Baily's beads breaking up and leading to the diamond ring, seeing the corona in the sky, and then seeing the glory of the second diamond ring. I think how long totality is between the two diamond rings is not the major thing. Indeed, the 33 seconds of totality at Ceduna in December was just wonderful. Jay Pasachoff

From: KidinVS@aol.com

One thing has become very obvious from the last postings that have appeared... and that is... an eclipse is most definitely a very personal experience. What I find to be the most exciting part is the 5-10 minutes BEFORE second contact...the feel of the cooler air, the very dramatic change in lighting, and of course, the excitement of what we will see in a few short moments...the corona that has been anticipated for years in advance. For sure, if it were only the corona we were aching to see, we would pay no attention to the rest of the activity... the horizon, the animals, birds, and of course, the look on peoples faces that have never seen it before. For sure... a 3 minute eclipse is better than a 2 minute eclipse. But, I agree with Jay 100%... it is the total experience that makes the wonders of an eclipse the gift that it surely is. I, personally travel to see an ECLIPSE... not totality. Rick Brown EclipseSafaris

From: Bob Morris

In terms of dynamics, the 1966 broken ring eclipse I saw from south of Athens was more amazing than the three totals I have seen (63, 70, 98) since in about 1 or 2 minutes you had:

a) a slender 180 deg crescent that did *not* have the ends creep in (as in a total) but simply broke up into beads,

b) then the broken-beaded crescent expanded into a full circle of beads which was only quasi-static for about a second, and then half the circle of beads disappeared,

c) then another broken beaded crescent that became a slender crescent

From: Chris Malicki

Even a short eclipse is wonderful; e.g.the 7 seconds of broken an-

SETalk

nularity that we saw in N.C. on May 30, 1984. But for a total eclipse I would love to get much more than the 29 sec. I had in Wirraminna on Dec. 4, 2002. It was too short a time to imprint well the shape of the corona, the streamers/coronal features in one's visual cortex. I would have been great to have an extra minute to study the corona with large binoculars. Chris Malicki "Carrying us away, Oh ever more away, Time" (1967) http://webhome.idirect.com/~kmalicki

Updated Javascript Eclipse Calculator for the May 31 eclipse

From: Chris O'Byrne To: SOLARECLIPSES@AULA.COM Date: Fri, 17 Jan 2003 11:13:22

I've updated the Javascript Eclipse Calculator to cover the 31st May eclipse. It's located at -

http://www.chris.obyrne.com/Eclipses/calculator.html

To use the calculator off-line while you are not connected to the Internet, first save it to your hard drive (by using "File" ... "Save As" in your browser). Then, just find the file on your hard drive and double-click it.

This calculator uses Fred Espenak's eclipse elements, and it also uses Lunar Limb corrections calculated by Fred. I use the same value of delta T as Fred, but whereas he gives times in UT, I give them in UTC, which means that there is a 0.516 second difference between us.

Also, I express the contact angle "V" in terms of the face of a clock, instead of in degrees.

One thing that is missing from this calculator is corrections for refraction. Given that this eclipse happens so close to the horizon, the refraction corrections are potentially important. I'm working on it :). coming soon - a calculator that does a number of eclipses at once! Chris.

From: Chris O'Byrne

The eclipse calculator now covers all eclipses from 1970 to 2039. It's at the usual place of -

http://www.chris.obyrne.com/Eclipses/calculator.html

As this required major changes to the way the calculator works, I consider it to be "beta" - ie "in test". Chris.

360 degree sunset effect...

From: Shivapuja@aol.com To: SOLARECLIPSES@AULA.COM Date: Tue, 14 Jan 2003 11:47:30

as we were under multiple layers of clouds immediately before and during totality on 12/04/02 aboard the olympia countess, i spent all my time watching the sky changes. the horizon was facinating as the shadow rushed in from the west and we did have a period of dusk/sunset colorations on all sides during parts of totality.

while i understand the comment about not looking much at this sort of thing if the corona is blazing, i was saddened at the large number of people who seemed to almost stop all observation once that possibility was clearly lost. the chatter arose from the rear decks of the ship before 3rd contact!

i will stand by my contention of experiencing a 'total double eclipse' - the new moon took our the photosphere and the clouds eclipsed the corona! it was still mighty dark for mid-morning in the tropics! michael e walton columbus, ohio, usa

From: Mick Wolf

Recently there were references to 360 degrees eclipse. Could someone enlighten me on the definition. Mick.

Lost Solareclipse Messages

From: Mick Wolf To: SOLARECLIPSES@AULA.COM Date: Thu, 23 Jan 2003 12:42:40

Hello Patrick, accidentally I deleted all solareclipse messages for Dec. till the 18Th Jan..Would it be possible to obtain copies? I would be greatfull if you could do so. With thanks Mick Wolf.

From: Mick Wolf

Can anybody tell me how to retrieve solar eclipse e-mail accidently deleted (I do not know how it happend -answer would be appreciated).I use Windows 98 SE, for some unknown reasonthe whole e-mail got highlighted and when clicked on white space the lot disappeared . It is not in the recycle bin or in deleted folder, it must be somewhere on the computer, but where? If you know the answer, please let me know. Thanks in advance Mick.

From: Jean-Paul GODARD

>From my own research ....
You can access rough archives of the list at : http://www.astroarchive.com/ (real time?) You can access formatted and enriched archive at: http://sunearth.gsfc.nasa.gov/eclipse/SENL/