

TRANSIT

The Newsletter of



Astronomical Society

31st July 2003. Julian Day 2452852



Front page picture

Another of Keith Johnson's amazing pictures. This time a photograph of a TV picture of a picture from his TV camera with a picture of what he is picturing. Did you get that?

Editorial

July Issue. This edition is a new idea to keep everyone in touch through the summer break. It gives the opportunity to give the regular features and their authors a break and catch up on material for which there was no space at the time. My apologies to those who send articles or contributions and don't see them in the next edition. All are kept and will have their day in the newsletter.

June meeting. Chairman Barry Hetherington gave the last lecture of this session, entitled "Observatories through the Ages".

The Society Book Project. Articles should be well advanced by now. Don't leave it too long – please try to complete them by the end of September.

Transit of Mercury. Included this time are some reports from our observing members. Observation reports of any astronomical event are always welcome for the newsletter.

Transit of Venus – advance warning. The recent transit of Mercury was exciting enough and seen very well from many parts of the UK. Next year, on the 8th of June, the complete transit of Venus is theoretically visible from the UK. Perhaps one of our experts can tell us why a transit of Venus seems to be given more importance than that of Mercury. And why are transits important anyway?

The Lobster's Eye. Our recent lecturer, Nigel Bannister, has written an article for the May edition of *Astronomy Now*. It covered most of what Nigel told us in April, plus some additional background and photographs. What a great piece of science!

Annular Eclipse of the Sun. Some members were in luck when they travelled to where this eclipse could be seen in all its glory but others were disappointed. Reports later.

Keith's Video for CaDAS Members. A number of requests for a copy of the video have been received. If anyone wants a copy, please contact me, John McCue or Keith. More at the September, 2003 meeting.

Travellers to Mars. Did you note that over the last month or so the European Space Organisation and NASA have launched several robots to uncover more secrets of the Red Planet? They are expected to make a Christmas rendezvous, looking for evidence that life is there, or may have been there at some time in the past.

Astronomy and Boulby. I was reminded the other day that the 1100-metre-deep salt and potash mine at Boulby is still at the forefront in the search for dark matter. PPARC are looking for WIMPS, using one of the world's most sensitive detectors. Does anyone know if it is possible to arrange a visit to the mine?

Lunar Map Software. For Moon enthusiasts there is news of the release of some new software that will interest you (see later).

The first meeting of the new season will be held on 12th September 2003, in Thorpe Thewles village hall. See Neil's Newsletter.

The Secretary's Programme for the next lecture season, as well as all sorts of other interesting information, is included with this newsletter.

Calling Three Members. John Coulthard, the email address I have for you is not working. Michael Quinn please make contact, I do not have a snailmail or email address for you. George Holmes, the email address I have for you is not working.

<u>Last Words</u> From John Crowther

We know not the hour. All our words could be our last. We should make sure we can be proud of them.

This is the conclusion of Paul Vallely, associate editor of The Independent, reflecting on the involuntary last words of the astronauts who died in the crash of the Columbia. Naval physician Laurel Clark sent an email the day before she died (quoted here from the web) trying to describe the perspective from space, which she found 'truly aweinspiring'. 'I have seen some incredible sights' she said 'Lightning spreading over the Pacific, the Aurora Australis lighting up the entire western horizon, with the city-glow of Australia below, the vast plains of Africa and the dunes of Cape Horn, rivers breaking through tall mountain passes, the scars of humanity, the continuous line of life extending from North America through Central America and into South America, a crescent Moon setting over our blue planet. . . . Whenever I get to look out, it is glorious.' Ilan Ramon, the Israeli member of the team, said 'The World looks marvelous from up here; so peaceful, so wonderful, so fragile. All of us have to keep it clean and good.' (Taken from Church Times)

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<u>Lunar Map Software</u> sent by Ray Worthy

Reading Information Technology, Inc., based in Reading, Massachusetts USA, has announced the release of Lunar Map Pro Version 2.0. Designed to meet the needs of serious amateurs, lunar enthusiasts, and educators, Lunar Map Pro Version 2.0 is the most advanced lunar software application ever developed for Windows.

- 1. What's New. Over 7,600 named features, making it the most comprehensive in the industry. Five High-Resolution Lunar Map Styles are provided, to meet every conceivable observing need. Raster (Image) Map For the ultimate in realism. Vector (Graphic) Map For unprecedented feature clarity. Raster Map with Vector Support Enhances difficult-to-see features. Vector Outline Map Creates accurate templates for sketching at the eyepiece. Interactive Geology Maps Three different maps classify lunar features by Type, Age, and System. Libration Correction is now provided automatically for all map styles and orientations. Lunar Sunrise and Sunset Dates and Times are calculated for named lunar features in the database. A Gazetteer provides historical information, and other useful feature data. Seamless Maps now allow users to change map styles and orientations, while still retaining map formatting. An expanded Help Menu includes a User Guide, Quick Start Guide, Glossary, Geology Legend, and more...
- 2. What's Updated. Tool Buttons are now available for all key map functions, providing more user-friendly operation. The Navigator Window has grid lines, and a fresh new look. The Grid Lines are now dynamic, adjusting to map scale changes, and readable with a mouse touch. The Phase Manager now shows the date of the phases for any selected lunation. The Surveyor Tool can measure arc seconds, as well as km and miles,

and provides multi-point measurement. The Ephemeris sports a new look, and now provides data for lunation, libration, altitude/azimuth, and more... The Feature Manager now allows custom labels to be saved and retrieved

3. Other Capabilities. The maps still Flip and Reverse to match your telescope view, and you can still make personalized Eyepiece Field-of View maps. Hover lets you identify map features with a mouse touch, and your maps can be custom-labelled by font type, size and colour. Our exclusive Feature Finder makes locating features a snap, and allows you to create links to your own Photos and Observing Notes. You can also paste your maps into other documents, create JPEGs, and print beautiful Professional Quality Maps.

Contact: RITI, Lunar Map Pro, www.riti.com

To Alex,

Happiness is a night sky.

The source of all happiness is in the depth of all dread. That is why it is such a varied and personal emotion. Each one of us lives an individual life, so we have our own joys and sorrows. To find solutions to our own questions, to identify our own worries and overcome them well, gives the most intense feeling of happiness to us as individuals. For one person, the passing of an exam may be the vehicle to happiness. Perhaps to fight, or to be in a situation of the gravest danger for a good cause, will bring that feeling on. For some, to have shared in a comfortable and loving relationship can bring true joy. To others happiness is found in the exhilarating proof of good health, just taking a walk on a windy day. For me, happiness is just being alone to survey the vast quiet of an enormous ocean umbrellaed with stars.

Pat Duggan

Annular Eclipse of the Sun Or was it a transit of the Moon?

Some members of the society and friends of members have sent in reports of their observations of the annular eclipse on 31st May, 2003. Unless you were north of latitude 57N and west of Inverness, the eclipse would have been partial only. Observers in both positions had varying degrees of success.

From Dave Graham

Sky News reports from the region of annularity in northern Scotland appeared to indicate less than favourable weather but perhaps some had better luck that ventured north?

As with this month's transit of Mercury, I took the family a few miles north of here to the peaceful North Yorkshire village of Kirby Malzeard where we stayed over Friday night with my brother-in-law and his family. In any event, Andrew and I were up at dawn on Saturday (May 31) and strolled along the village main street in an easterly direction to see if local topography would permit a view of the newly risen Sun, which it duly did.

My first indication of the eclipse was a reflection glimpsed in a window, of a fiery red orb with a large bite missing from one side, as the Sun had risen through haze on the eastern horizon. Returning to Andrew's house we found the partially eclipsed Sun visible to the right side of the tower of the local parish church and Andrew took a digital photograph of the same. We also directly viewed the event through my 90mm Celestron Maksutov. I was surprised at the speed at which the Moon cleared the Sun - it seemed to be over in no time at all. I would say that, as we first caught the event, perhaps a third of the diameter of the Sun was obscured by the Moon.

From Neil Haggath

The annular eclipse, as attempted from Orkney, was a complete disaster - 100% cloud right through, and not the slightest glimpse!

But at least I got my diving. Yes, I dived five of the WW1 German ships, and also some of the WW2 block ships, which by definition are in shallow water. I didn't manage much sightseeing, as I did six days of solid diving! The only bit I did was on the last day after the non-eclipse; I went to Skara Brae, which is said to be the best-preserved Neolithic site in Northern Europe.

At least I had a couple of nice evenings out with John and Elaine. The evening before the eclipse, we went to a public talk by Heather Couper and Nigel Henbest.

From John Rogers, Cambridge

Having risen in the foggy twilight of coastal Nairn, we ventured up towards the bleak moors, past Cawdor Castle hidden behind dark foggy forests, half-hearing the witches chanting 'Hail Macbeth, Thane of Cawdor', as we climbed above the forests and the fog, until we saw the grey haze of the horizon pierced by a blood-red dagger, which was one side of the almost-fully-eclipsed sun, and as the mists subsided the complete red ring of the rising 'black hole sun' made its appearance, partly broken into tiny beads, for a brief minute or two, before breaking into an ever-brightening crescent that revived the landscape with sunlight. Yes, it was a good show.



From Martin Whipp, York AS

In reply to Neil's email describing his disaster - join the club! Only 5% of Iceland saw anything, and I wasn't in that 5%. The only chap I spoke to who saw it was the director of the Hopkins Observatory in Massachusetts and that was because he took a flight between two cloud banks with some folks from the University of Iceland.

Never mind - most of the rest of York AS saw something, with members covering most of the east coast, from Lindisfarne down to Lowestoft

(I am told Julia McBride also went to Iceland. What did you see, Julia? – Ed.)

From Mike Foulkes

I went up to Lossiemouth to attempt to see the event with a number of friends. The day before, the weather didn't look too promising but by about 01:00 UT the skies overhead looked clear. By 02:00 UT many amateurs had set up telescopes etc on the beach, the esplanade or on the harbour walls. The local pub had organised a barbecue on the beach and many locals also turned up to watch (only having heard about the eclipse the day before). Alas, although reasonably clear overhead, there was a low-lying bank of mist and cloud on the eastern horizon. This prevented sunrise being seen, as well as the annular phase. Third contact was predicted for Lossiemouth at 03:45:37 UT and the sun appeared just before 03:48:42 UT. Although sometimes heavily dimmed by the cloud and mist, it subsequently remained visible up to fourth contact and beyond.

So it was a case of so near but so far! Although just missing annularity, given that so many people didn't see anything we are all thankful that we saw something. Many of the locals and amateurs present enjoyed the event. The mist and cloud dimmed the sun so much that it appeared red and filters were not required for a time to see the partial phase. The mist and cloud also gave a spooky quality to the event. One thing that most people commented on was how much smaller the moon looked compared to the sun.

Many digital images were taken showing the partial phases and the sunspots that were present but alas none could be taken of annularity! I haven't had chance to call him yet (having just returned from Scotland) but I believe John Rogers had better luck in Nairn - to the west of Lossiemouth - seeing both sunrise and annularity.

Transit of Mercury. Wednesday, 7th May, 2003.

Reports of observations of the transit of Mercury were received from four people. If anyone else would like to send in reports of observations of any kind, they would be very welcome.

From Neil Haggath

Hi folks. Did anyone have any luck with the transit today? I had a partial success; first time I've seen one! I observed by projection with a 60 mm refractor. All times given are UT.

When I got up at 04h30m, it was absolutely 100% cloud; I was tempted to give up and go to work but I persevered. The first three hours were completely lost, but from about 08h30m, the clouds started to break up, and there were a few gaps. I got a few brief glimpses shortly before 09h00m, slightly filtered by thin cloud; I could see one big sunspot pair, and a tiny but distinct dot which I thought was Mercury, but couldn't be certain. And the rack-and-pinion focusser on the refractor suddenly decided to stop working, which didn't help.

Then during more clouds, I did a web search, and found a site which was transmitting live images from Meudon Observatory - so I was able to confirm that what I thought was Mercury actually *was*! Then I got another glimpse about 09h50m; by then, of course, it had moved appreciably, so I was finally really able to confirm that I was actually seeing it. Then from about 10h00m, the clouds broke up and I actually got a good view. Just for a few minutes, I got a completely un-cloud-filtered view, bright enough to project onto a standard 4" disc and do a drawing; that was at 10h11m, 21 mins before egress. Up to about 90 secs before third contact, I could still discern that the dot wasn't yet touching the limb, but of course I couldn't discern the exact moment of contact. By about 50 secs before fourth contact, the partly-egressed planet ceased to be discernible, then a cloud came over again about 30 secs before contact, and I missed the moment of egress. A taster for next year's big one!!

From Mike Foulkes

Hi Neil, glad to hear that you saw the transit despite the frustrations of the weather.

I had decided to take the morning off work as I was determined to see this having only seen the one in 1970 (?) through cloud. As it turned out, the weather was a bit kinder down here.

I observed with a friend - Paul Carter, and we set up our telescopes before 05:00 UT. Our observing site was the edge of a field out of town. This was chosen as it had a good eastern horizon and we therefore hoped to see 1st/2nd contact. However, although we could see the sun, thin cirrus cloud dimmed the image so much it was initially difficult to see anything at all, so 1st /2nd contact was missed. Fortunately by about 05:45 the sun had cleared the cloud and we could detect Mercury plus the various sunspots and faculae. Apart from a bit of wispy cirrus conditions were good for the rest of the morning. Paul had to leave for work before 08:00 but I carried on. We observed visually and also took some images on a digital camera and with a web cam. During the morning various people walking dogs came over for a look and two coppers stopped for 20 minutes or so. Some of the images taken were OK, some were degraded by poor seeing. A webcam video sequence was taken through 3rd/4th contact which has come out reasonably well. Two women with dogs came by just before 3rd contact and stayed to watch egress on the laptop monitor. Both seemed fascinated. The trouble with this digital stuff is that it is very easy to take lots of images but takes a while to pick out the best images and then process them up. I hope to make a sequence of images from what we have. As you say a taster for the Venus transit next year.

More immediately lets hope for clear skies for the lunar eclipse and the annular.

From Martin Whipp, York AS

Hello all.

The York AS teamed up with a couple of Harrogate AS members in Tadcaster to observe the event. There were 10 people and almost as many 'scopes (including our solar section director's Hydrogen Alpha Coronado thingy). Just two or three of us saw Mercury around 6:20. Sadly, the back of the queue was denied because of further clouds.

Mid-event, we had a few minutes of clarity, and we managed to get 5 minutes of video footage using one of Peter Drew's security camera kits.

The last half-hour from 11am onward the weather improved and we managed to get some good views - especially in the Coronado. One of our aims was to view Mercury after it had left the disk (ie in silhouette against a prominence) but sadly there was nothing to see on that part of the disk.

I managed to get one or two shots by simply holding a digital camera up to the eyepiece of a Celestron 8".

From Dave Graham

Hello everyone!

Just a quick note to say that we successfully observed the transit of Mercury across the face of the Sun yesterday morning, May 7 2003, despite a poor start due to cloud cover.

I took my 102mm f13 refractor to my brother-in-law's home at the village of Kirby Malzeard near Ripon, North Yorkshire, and with our respective families in tow, made a social event of it. The 'scope was fitted with a Thousand Oaks solar filter for direct viewing of the solar disk.

Rising at dawn we were greeted by an overcast sky and initial prospects did not look promising. Fortunately a patch of blue sky appeared in the northwest and this slowly but surely displaced the cloud, though patchy high altitude cloud did interfere with observations from time to time.

To summarise, Mercury was first seen in transit at 9h 10m UT, by which time the planet was well advanced in its passage across the Sun. Cloud rolled in at 10h 15m UT but cleared again in time to see Mercury egress the Sun at approximately 10h 30mUT.

This being my first planetary transit, I was amazed at the 'unreal' aspect of the tiny disk. It was so perfectly circular but 'inky black', sporting a slightly brighter (than the solar background) aureole. This must have been an optical effect, contrasting with the less well-defined sunspot umbrae which were present and made a useful comparison. When Mercury reached the limb of the Sun, a 'notch' appeared and then in what seemed to be such a short time, the planet was gone!

A year from now, the much rarer transit of Venus will take place. Let us hope that fate works in our favour on the day in question!

Kind regards to all.

Keith Johnson has images of the transit of Mercury on the video he is offering to members (see June Edition of Transit) – Ed.

The Society Book Project at July, 2003

Three articles have now been received and two are written and being typed into electronic file format. The Editorial board will be formed shortly. You can send your contributions to me (see Transit Tailpiece for addresses) either on CD or by email. The preference is for electronic file format in Word, with pictures already inserted. However, I know there is a lot of variation in the layout and method of writing, which depends on your chosen subject (sounds like MasterMind!).

The way you write it doesn't really matter. The important thing is to write something.

Editor

Earth Calling Morons... Some thoughts on that idiotic "Apollo Hoax" drivel by Neil Haggath

In this magazine, Alex has serialised some material relating to the so-called "Apollo Hoax" – the ludicrous "theory" that the Apollo moon landings never happened, but were somehow faked, in a con trick of monumental proportions, perpetrated by the United States Government. (Their supposed motive for doing such a thing completely escapes me!)

In recent years, for some bizarre and totally unfathomable reason, this preposterous "conspiracy theory" seems to have gained popularity among the "lunatic fringe". I'm absolutely baffled as to why; the whole notion is so totally absurd that no-one but a complete and utter retard would ever give it so much as a moment's consideration. Unfortunately, there seem to be plenty of them around – the same kind of loonies who believe in flying saucers, aliens building the pyramids and alien spacecraft following comets!

It's also incredibly insulting to the brave men who risked their lives in one of their country's most magnificent and prestigious achievements – and an *obscene* insult to the memory of their three colleagues who died in the Apollo 1 fire. And let's not forget the 400,000 other people who played a part in the project – especially NASA's ground control staff, whose job was one of the most stressful in the world, and many of whom paid a high price, in terms of their health and/or their marriages.

Any attempt to persuade the "believers" that they are talking out of the wrong orifice is a waste of time and effort. Anyone stupid enough to believe the theory is obviously totally incapable of rational thought, so no amount of logic and evidence which we present to them is ever likely to change their minds. Personally, I just wouldn't waste my breath on them.

Nor do I intend to waste space here in debunking the conspiracy theorists' pathetic arguments, since many of the flaws in their so-called "evidence" are obvious to anyone with any semblance of a brain, who bothers to think about them! The self-proclaimed "Messiah" of the conspiracy theorists, one Bart Sibrel, has compiled a "top ten" list of

arguments which, in his opinion, "prove" that the moon landings never happened. For an excellent, rational demolition of Mr. Sibrel and his rantings, see Jim McDade's web site, http://www.business.uab.edu/cache/debunking.htm

Much publicity has been given to the incident in which Sibrel confronted Buzz Aldrin, and challenged him to swear on the Bible that he had really walked on the Moon; Aldrin responded by punching him in the face. Inevitably, Sibrel and his "disciples" claim that his refusal is further "proof" that he *didn't* walk on the Moon... A far more likely explanation is that Aldrin objected to his privacy being invaded by some idiot sticking a video camera in his face, insulting him and casting aspersions on his integrity!

Sibrel would rather we didn't know about the result of his trying the same thing with Ed Mitchell of Apollo 14. He tricked his way into Mitchell's house, by using forged credentials and claiming to be a journalist for a respectable magazine, and then pulled the same stunt. Unlike Aldrin, Mitchell kept his cool, and *did* swear on his Bible, before kicking him out – literally, with a boot up his backside.

Sibrel is, in fact, nothing more or less then a profiteering con man, preying on the gullible. "The truth will be revealed, if you buy my video!" Get it?

As I said, I'm absolutely baffled as to how and why this moronic idea originated. But I'd like to suggest something which may have been a contributing factor to its becoming so widespread.

In the late 1970's, just a few years after Apollo ended, a film called "Capricorn One" was made, which was quite possibly *the* most ridiculous load of mindless drivel ever to come out of Hollywood. Its theme was – guess what – the faking of a space mission! In fact, it made the slanderous and obscenely insulting suggestion that the US Government would not only fake a space mission, but would then murder the astronauts to stop them talking!

For those who have never seen this fine example of "entertainment for the brain dead", here's a brief synopsis:

The United States is about to launch the first manned mission to Mars – using, would you believe, an Apollo-Saturn V spacecraft, and even an Apollo-type Lunar Module to land on Mars! Ahem... any moderately intelligent 12-year-old could soon spot the total stupidity of *that* one! The film was intended as a "thriller", rather than a work of science fiction; its producer obviously knew absolutely nothing about the basics of space flight!

Anyway, they discover a major problem with the spacecraft, when it's far too late to fix it, which means that the astronauts can't hope to survive. So rather than lose face by canceling the mission, they decide to fake it. The spacecraft is launched unmanned, and the astronauts taken to a film set, where they are forced, against their will, to enact the entire mission. Yeah, right – as if it would be possible to do such a thing, and get away with it, without *years* of careful planning!

After a supposedly successful "mission", they fake an "accident" right at the end of it, during re-entry, which supposedly kills the heroic astronauts. At this point, the astronauts suddenly realise that they are about to be murdered, and do a runner. The rest of the story consists of them on the run in the desert, being chased by government hit-men; needless to say, they manage to escape and tell the world the truth.

Now, there is a very strange, but well-known, phenomenon in modern society, whereby some sad and disturbed individuals are apparently unable to distinguish between fiction and reality. In particular, an amazing number of people seem to blur the boundaries

between what they see on TV and the real world; some apparently think that their favourite soap operas are in fact fly-on-the-wall documentaries about real people. There have been many cases where an actor who plays the "villain" in a soap story has had abuse shouted at him in the street – and worse – by the kind of pathetic morons who don't seem to realise that he *is* just an actor, and that the nasty character doesn't really exist! One actor even had bricks thrown through the windows of his house – and *he* played a villain in, of all things, "Crossroads" – the least realistic soap in the history of TV!

Could it be, then, that a similar confusion of fiction and reality, involving "Capricorn One" and other similar rubbish, has played a part in the popularisation of the "Apollo Hoax" myth? It seems to me that to actually believe the stupidity which is being peddled by Sibrel and his ilk would require a similar degree of mental deficiency to that which drives people to throw bricks at actors...

OK, I'm not seriously suggesting that anyone who saw the film at the time would have confused it with reality! But what *is* distinctly possible is that in recent years, when Sibrel and Co. began making their allegations, a very distant and woolly memory may have been stirred in some people's minds, of something which they saw or heard many years ago, about space missions being faked. Some may have become confused, and forgotten that what they actually saw, more than two decades ago, was just a work of fiction.

In fact, the aforementioned stupid film definitely *has* played a small part in it. While Mr. Sibrel accuses his country's government of lies and deception on a massive scale, he is himself guilty of blatantly fabricating false "evidence" to support his bizarre claims. On the cover of his video is a photograph which, he claims, "proves" that the Apollo landings were faked in a film studio. It shows a Lunar Module and two astronauts "supposedly on the lunar surface", but the picture has been squashed sideways to reveal something else at the edge of it – a set of film set lights. According to Sibrel, this picture was taken during the "faking" of one of the landings...

Of course, the picture *was* taken on a film set – during the filming of "Capricorn One"! Finally, there's an overwhelming and blindingly obvious argument against the "Hoax" concept. Whatever motive the US Government might supposedly have had for faking the Moon landings, actually doing so, and making it convincing, would have been almost as massive and expensive an operation as doing the real thing! And it would also involve the small problem of ensuring that each and every one of those 400,000 people kept their mouths shut for the rest of their lives. The organisation and execution of such a massive scam would have required the kind of criminal mastermind, who has never existed except in James Bond films!

Even at the time of the Apollo 11 landing, a few people apparently suggested that it wasn't really happening. The following response, by the American writer Norman Mailer, sums it up quite nicely:

"The event was so removed, however, so unreal, that no objective correlative existed to prove it had not been an event staged in a television studio---the greatest con of the century--- and indeed a good mind, product of the iniquities, treacheries, gold, passions, invention, deception, and rich worldly stink of the Renaissance, could hardly deny that the event, if bogus, was as great a creation in mass hoodwinking, deception, and legerdemain as the true ascent was in discipline and technology. Indeed, conceive of the genius of such a conspiracy. It would take criminals and confidence men mightier, more

trustworthy and more resourceful than anything in this century or the ones before. Merely to conceive of such men was the surest way to know the event was not staged." Q.E.D.

This is an e-mail sent to Jim McDade, author of that excellent conspiracy-debunking site, referred to above.

To: <u>'moonshot@uab.edu'</u>

Subject: "Apollo Hoax" debunking

Dear Mr. McDade.

I have recently read the material on your "Apollo Hoax" web site, which makes for very amusing reading. Congratulations on your excellent demolition of Bart Sibrel and his moronic accusations. Something has occurred to me, which you have not mentioned on the site. I recall one glaringly obvious bit of evidence, which Sibrel and his fellow morons have conveniently (and presumably intentionally) overlooked. One of the astronauts - I forget who it was - performed a simple demonstration on the Moon, which was of course filmed and broadcast live, of acceleration under gravity. He dropped a hammer and a feather, to show that they fell at the same rate. Now how exactly do Sibrel and company think that was faked on Earth? (Unless of course, the "film studio" was also a huge vacuum chamber. Oh, but it couldn't have been, could it – because according to Sibrel, "the flag waved in the breeze of the air conditioning!")

I would like to issue a challenge to Mr. Sibrel, through your site, to explain to us just how the hammer and feather demonstration could have been faked in a studio on Earth. I don't doubt that it would be possible, with today's computer graphics technology, to fake such a piece of film - but I would love to know how it could have been done 30 years ago.

Neil Haggath

<u>Light Pollution Issues</u>

Here are some interesting items our members have spotted on the subject of Light Pollution and how it is affecting and could effect astronomy. Editorial policy will continue to bring light pollution issues to your attention because indiscriminate lighting is spreading at an alarming rate. If nothing is done about this situation, amateur observational astronomy from the Earth's surface will end quite soon. Am I overstating the danger?

Redcar and Cleveland Lighting – an opportunity From Ian Miles

Do we have any lobbying Redcar area members? Here's an opportunity to influence the design of a big, important public lighting scheme.

Lighting the way
From the Evening Gazette, June 30, 2003

A Teesside council is facing a £13.7m bill to replace its streetlights after several collapsed. A study by Redcar and Cleveland Council found more than half of its lights were older than their designed lifespan. The authority has already been forced to replace some crumbling columns after they collapsed together with others which were at risk of doing so. Now it is preparing a bid for Government cash to tackle the problem. Ray Richardson, the council's director of finance, performance and procurement, said several columns had collapsed in recent years in the borough. He said: "Apart from the very real danger of further column collapse, the existing stock is extremely energy inefficient." Nationally it is estimated £2.5bn needs to be spent on street lighting. In Redcar and Cleveland in 1998, the bill to replace all the street lighting columns more than 25 years old was put at £13.7m. Mr Richardson, will tell tomorrow's Cabinet: "With no significant injection of funds, the lighting stock has deteriorated further since 1998 and the replacement cost will have increased significantly." The 1998 survey showed 57.1pc of columns in the borough were older than their design life of 25 years and almost 10pc of the stock was more than 40 years old. The Government intends allowing a number of councils to improve street lighting through a Private Finance Initiative. Under it, privatesector cash will be injected into the street lighting service in the borough, with the council paying for it over a number of years. Redcar and Cleveland Council will submit an "Expression of Interest" to the Department of Transport before the end of June. If it is among those which are successful, the council will then prepare more detailed proposals for work to improve the street lights across the borough. Ian Miles

And Ian also spotted an article from the Local Government Chronicle:

Government Urged to give Councils new powers to tackle Light Pollution By LGCnet political correspondent Robert Hedley

The Government was pressed to give local authorities new powers to control nuisance lighting and light pollution. The call came from Liberal Democrat Lord Oakeshott who said satellite photographs published by the Council for the Protection of Rural England showed how light pollution had grown dramatically over the past seven years. "Much of south east England is a nasty orange glow, with just a patch of dark sky over the Isle of Wight", he added. ODPM minister Lord Rooker replied: "The photographs are striking. There has been an increase in light pollution: there is no question about that. The issue is what we do about it.

"The Select Committee in another place is carrying out a study at the moment. We wholly support it and look forward to the recommendations. The minister said that in 1997 the government issued a good practice guide to lighting in the countryside. In 1998, the transport white paper made clear that if lighting was essential, it should be done in a way that minimises nuisance. Crossbencher Lord Tanlaw, chairman of the all-party astronomy and space environment group, called for "no-glow" areas on the outskirts of towns. He added: "Any amateur astronomer who has seen, as I have, the moons of Jupiter, the rings of Saturn or the nearest nebula of Andromeda has a sense of wonder. That is being denied to young children and all amateur astronomers throughout the

country. "Towns such as Swindon have an undeflected incandescent glow of sodium that can be seen far out in outer space, outer space that people cannot see from ground level as a result."

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<u>Crime and Astronomy</u> From Mike Gregory

Mike is one of the members of CaDAS who is actively trying to persuade people to use lighting in an intelligent way. He has sent a deposition to the Parliamentary Committee currently examining the problem of light pollution and he takes an active interest locally. Recently, he pointed out one aspect of the light pollution problem, which had not occurred to me at all. In a Crime Prevention leaflet, circulated to all householders by the Middlesbrough Crime Prevention Office, the Cleveland police actively recommend that householders should, among other security measures, "fit external low energy, photocell-operated, 'Dusk to Dawn' lights, which offer all round protection. This lighting will not cause offensive glare to your neighbour's property and is far more economical to run than normal lights."

Mike says two of these systems local to him are a disaster from an astronomical point of view. A letter to the local crime prevention officer brought a polite reply, implying that it was still the Police recommendation that general illumination was a good security measure.

No doubt the Police will be saying this to the Select Committee. It seems that night lighting will inevitably increase for all sorts of diverse reasons – some of which we cannot even begin to guess. Is the only hope for our sort of astronomy that the design of the lights will be changed to prevent them destroying the night view, or that areas of dark sky will be protected by law? The conclusions of the Select Committee will make very interesting reading. Ed.

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Transit, The Society's Newsletter

A note for new members

Please pass this message on if you know a new member

Each month, for ten months of the year, the Society produces a newsletter. If, having paid your annual subscription, you do not receive a copy (usually sent out just before each monthy meeting) by the next meeting, will you please contact the Editor? He is Alex Menarry, 23, Abbey Road, Darlington, DL3 7RD, 01325 482597, a.menarry@virin.net.

You can elect to receive your copy by email or post. It saves the Society some money if it is sent by email but you need an Acrobat reader.

Transit Tailpiece

Quote/Unquote

Stars are the daisies which be-gem the blue fields of the night. *Anon.*

The amateur astronomer has access at all times to the original objects of his study: the masterpieces of the heavens belong to him as much as to the great observatories of the World. And there is no privilege like that of being allowed to stand in the presence of the original.

Robert Burnham Jr.

(Will light pollution be defeated and allow this quote to continue to be true - Ed)

To be human is to be curious about the universe around them. Anyone who is no longer curious is therefore not human.

John Dobson, Sidewalk Astronomers

<u>Custom Telescopes UK</u>. For your telescopes, binoculars and accessories of all kinds, go to Glen Oliver, a long-time member of the Society. He operates from Hartlepool and has a website www.goliver.freeserve.co.uk. Glen also supplies Astronomy and Space books of all kinds. Don't forget to visit his website soon.

<u>CaDAS Website</u> Now at <u>www.planetarium.btinternet.co.uk</u> and the society email address is <u>planetarium@btopenworld.com</u>. Everyone is encouraged to visit the site and tell your friends about it.

<u>Sunderland AS</u> Contact them at www.sunderlandastrosoc.com to see how they are progressing with the new Observatory at Washington Wildlife Centre. If you wish to attend their meetings you are assured of a friendly welcome.

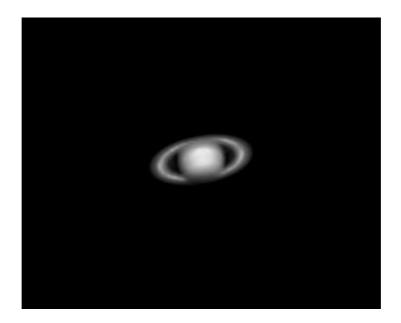
<u>York AS</u> have a website at <u>www.yorkastro.freeserve.co.uk</u> and an excellent programme of lectures, if you wish to go along.

<u>Post and Email</u> If anyone wishes to change the way they receive their Transit, please let me know. If any member is not receiving a copy, please let me know.

<u>Articles</u> Please send contributions for the newsletter to Alex Menarry, 23, Abbey Road, Darlington, DL3 7RD, 01325 482597 (a.menarry@virgin.net) or to John McCue, 01642 892446 (john.mccue@ntlworld.com). Copy deadline date is the 1st of each month

The Back Page Picture(s)





Both of these are Keith Johnson TV captures using Jack Youdale's telescope.