Notes and News

From the President

As an astronomer or someone interested in astronomy, you are no doubt well aware of the passage of time and will not be unduly surprised that the Earth has circled the Sun yet again and that the new year of 2007 is well under way. I do hope that 2006 proved to be a prosperous and worthwhile time for you and your family. Looking back on the year the highlight astronomically speaking may have been March's total solar eclipse, which proved to be one of the most spectacular and well-observed in living memory. Although this year our skies were not graced by the passage of a really bright naked-eye comet, we did witness some fine binocular and telescopic views of comets, the best of which was C/2006 M4 (SWAN) with a tail exhibiting plenty of fine structure and extending in length almost 5° during late October.

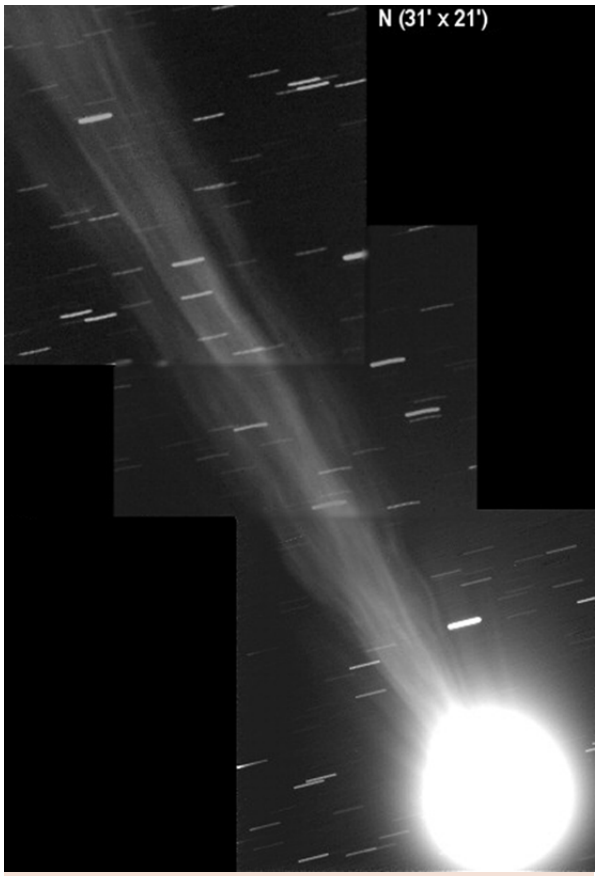
Whether we are entering an era of distinct global warming I am not sure as I think the jury is still out. From an observer's perspective, 2006 did seem to be a poor year as far as the number of observing opportunities were concerned, which may have something to do with increased cloud cover predicted for our northerly latitudes as a consequence of higher CO_2 levels in the atmosphere. Our CfDS Christmas starcount project, held in conjunction with the Campaign to Protect Rural England, which aimed to evaluate the extent of light pollution across the UK by asking people to count stars within the main body of Orion, was a victim of the poor weather being plagued by persistent cloud and fog. Here in north Dorset, cloudy skies have certainly been in evidence as can be seen from an inspection of my observing logs: in 2004, I recorded observing on 76 nights, in 2005 a grand total of 89 nights, whereas last year yielded a mere 52 nights. Indeed, during the second half of 2005, I logged as many observing nights as I had during the entire 12 months of 2006. It may have been that 2005 was a particularly good year. On the other hand, 2006 appeared to be remarkably poor in that precious few nights remained clear with many observing runs cut short by the arrival of clouds. Let us hope that 2007 brings a return to better weather conditions for everyone.

Other recent news has been the successful though hectic move of the BAA Office and Library from Burlington House to our temporary abode along with the Royal Astronomical Society, and we are now based in satisfactory accommodation at Hallam Street in London (note that our Piccadilly postal address remains unchanged). This move took place in November and December and like many house moves is proving to be an opportunity to sort out our records, archives, books and other material that has accumulated over the years. I would like to thank all those involved in the move including Jean Felles our Office Manager, her husband Brian, and my fellow members of the Library Committee.

Speaking of the RAS, in late November I attended the first UK meeting, which they hosted, to discuss plans for the International Year of Astronomy 2009 (IYA 2009). The decision to hold a worldwide celebration of Astronomy was made at the IAU General Assembly in Prague last year, since 2009 is recognised as a particularly significant year being the 400th anniversary of the first (reported) use of the telescope for astronomical observation. Back in 1609, several people trained the recently-invented instrument on the heavens, most notably Galileo Galilei in Venice and Padua and also Thomas Harriot here in England. We shall no doubt hear more of their exploits and those of other early telescope users as 2009 approaches. 2009 is also a significant year for other reasons, including being the 40th anniversary of man's historic landing on the Moon. An objective of IYA 2009 is to widen understanding and appreciation of Astronomy and how it relates to mankind. The Year will reach out to all ethnic groups and nations of the world. Certainly I find the subject to be a spiritually uplifting one with plenty of scope for enriching one's life, and I trust many of you feel likewise.

Talking of the future, I am already anticipating my handover as President to my successor, which will take place at the forthcoming Annual General Meeting on October 31. It is a pleasure to announce that my nominee for the position is none other than Roger Pickard, a name which the BAA Council wholeheartedly endorses. It is encouraging to know that the Association has many capable folk working to foster its aims and objectives, Roger being a noteworthy example, having joined the BAA in 1966 and now serving as Director of the Variable Star Section.

Overall it has been an exciting and rewarding past year. Probably the most extraordinary happening took place in October and November following the discovery by the nova hunter Akihiko Tago, made using a digital SLR camera, of a bright 'variable star' in Cassiopeia. Subsequent studies have shown that the star is an ordinary 11th magnitude A-type spectral class star about 1000 parsecs distant, the light from which had been amplified by more than four magnitudes through the process of gravitational lensing (gravity bending light as predicted by Einstein) whilst an invisible mass slowly passed across our line of sight. The microlens interpretation appears to be the true explanation given the form of the lightcurve and the fact that the object experienced no significant colour change or change in its spectrum. Its brightness has now returned to normal and appears to be essentially constant. Astronomers were reluctant to accept the microlens

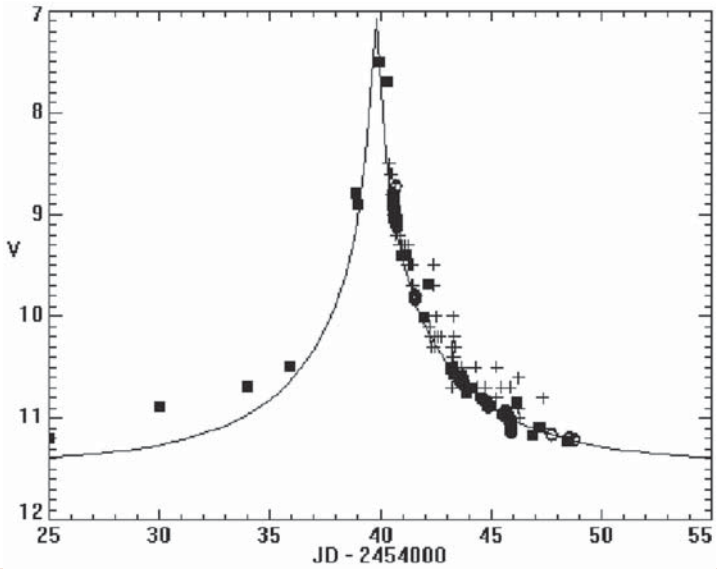


Comet C/2006 M4 (SWAN) imaged on 2006 October 24 by Martin Mobberley. A three-frame mosaic with a Celestron 14 at f/7.7, Paramount ME + SBIG ST9XE CCD. *M. P. Mobberley.*

interpretation since conventional wisdom rated the chances of such an event involving a relatively nearby star as being exceedingly small. My view is that our knowledge of the nature of dark matter lurking in interstellar space is still in its infancy and we shouldn't be unduly surprised in this instance. Indeed, the challenge is on for keen amateurs to detect similar microlensed stars or 'lensars' as I like to call them. Most such events might involve stars suddenly brightening by a magnitude or so: in other words a new class of 'variable star' for the amateur observer and quite a challenge at that!

There should be lots of astronomical phenomena to look forward to in our skies during 2007. Although many of these can be predicted with high accuracy, many more will prove to be most unexpected and will no doubt come as a welcome surprise to amaze and delight us.

Richard Miles, *President*



Lightcurve showing the symmetrical brightening and fading of Var Cas 06 (GSC-3656-1328), characteristic of a gravitationally microlensed star. *Plot by Chris Lloyd.*

Mercury & Venus Section

Observing Venus in 2007

As is well-known, there is an approximate periodicity between the orbital motions of the Earth and Venus so that (within a few days at least) Venus returns to the same place in the sky after intervals of eight years. It so happens that the evening elongation of Venus in 2007 will bring the planet back to the same place in the sky as it was in 1895, the first year of operation of the BAA Mercury and Venus Section (its first programme of work being published in the *Journal*, 5, 179–181 (1895)). Following superior conjunction on 2006 October 27, the planet will become progressively better placed in the evening sky (though its initial large southern declination will limit effective UK work until 2007 February), until it reaches greatest elongation east on June 9. Finally the planet reaches inferior conjunction on August 18. Around this time her daily motion in RA is fairly large, and those who dislike extrapolating from the *Handbook* are welcome to have a special daily ephemeris kindly generated by Gordon Taylor for the inferior conjunctions from 2007 to 2014: just ask me for a copy. The following morning elongation will also prove favourable in terms of declination, at least until around greatest elongation west on October 28.

In 2004 many UV CCD images were submitted, and these enabled the writer (as will be described in a formal Section Report soon to appear) to successfully make a new measurement of the rotation speed of the planet's upper atmosphere. I would urge observers to do everything they can to secure many images throughout the gibbous phases up until dichotomy, so that such measurements can be further refined.

Visual observers should pay special attention to the bright cuspidal areas or cusp-caps, and their variability with time, to record as accurately as possible the moment of apparent dichotomy, and to submit good drawings on the reporting forms available free from the undersigned. They should also look for any sign of the true Ashen Light during the crescent phase (which always appears brighter than the sky), and any cusp extensions near inferior conjunction. CCD users are urged to try to image the Ashen Light and to measure its brightness relative to the sunlit crescent, and to try and add to the recent results from 2004–'06 when observers successfully imaged the IR thermal emission from the planet's nightside.

Please submit results frequently. Good luck with observing Venus in 2007.

Richard McKim, *Director*

Deep Sky Section

The Deep Sky Section annual meeting will take place on Saturday March 3 at the Humfrey Rooms, Castilian Terrace, Northampton. This year's programme includes the following talks: 'High definition imaging of planetary nebulae' by Andrea Tasselli; 'A pinch of SALT' by visual observer Paul Clark; 'Observing really deep sky objects' by Grant Privett; and 'Two-colour imaging of the deep sky' by BAA President Richard Miles. In addition, Professor Janet Drew from Imperial College, London, will give a talk entitled 'The Northern Sky H-Alpha Survey'. There will also, hopefully, be time after the main meeting for a few short talks by individuals wanting to discuss deep-sky related matters or give an update on their observing projects.

Admission to the meeting is £7 (payable at the door) which includes refreshments throughout the day and a leisurely buffet lunch with time for socialising. Northampton is a relatively central location, both north/south and east/west, and is well served by road and rail connections, with frequent trains from London and plenty of car parking. Display material is welcome from Section members and both the BAA sales stand and the Webb Society will be present. Doors will open at 10:00 with tea and coffee available from 10:30 and the meeting starting at 11:00. All BAA members are welcome to attend.

Following an upgrade to the telephone exchange in my village I have now – somewhat reluctantly – dragged myself into the ▸

Solar Section

2006 September

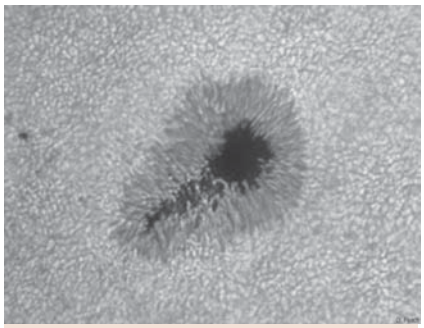
Although most observers reported Sept 3, 4, 25, 26 and 27 as 'blank disk', only Sept 3 was reported as 'blank' by all observers. Overall activity was slightly up on August with the bulk of activity mainly concentrated in the southern hemisphere.

AR905 and AR906 were both seen on Sept 1 close to the western limb as an Hsx spot S05°/335° (AR905) and a Dso group at S06°/319° (AR906). AR905 had disappeared by Sept 2 and AR906 had reduced to a single Axx spot which was not present on Sept 3.

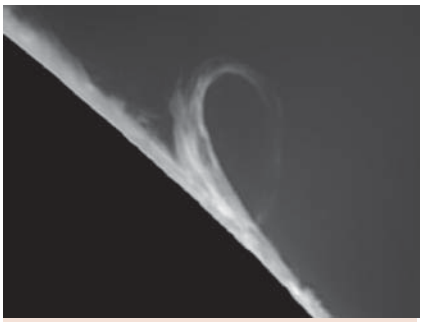
AR 907 rotated onto the disk on Sept 5 as a Cso spot at S13°/161°, becoming an Hsx spot on the following day with an area of just 40 millionths before decaying into a Bxo group on Sept 7 and an Axx spot on Sept 8.

AR908 also rotated onto the disk on Sept 5 as an Hsx spot at S13°/130°, becoming type Hax on 7th and acquiring an area of 240 millionths by Sept 8. The group had become type Ehi by Sept 9, crossed the CM on Sept 11 and started to decay, type Cki, on 12–15 and Csi on 16th, clearing the western limb on Sept 18.

AR909 first appeared on Sept 6 as a small group to the north west of AR907 at S08°/168°. By the following day it had developed into type Dso with an area of 60 millionths, crossing the CM on the 8th and decaying to type Cai. The group was last seen on Sept 13 as type Csi.



Spot group AR908 at 10:51 UT on 2006 Sept 9. *Damian Peach.*



Solar limb with an arched prominence on September 18 at 09:53 UT. *Damian Peach.*

AR910 was first seen by Monty Leventhal in Australia at 22:15 hrs UT on Sept 16 as an Hsx spot near the eastern limb at S08°/341°. The spot remained constant until Sept 20 when it became type Csi and by Sept 22 it sported five satellite spots, but then started to fade to type Axx on Sept 24 and was not seen thereafter.

AR912 was the first group seen in the northern hemisphere, type Bxo N06°/194°. The group had faded by Sept 29 and was no longer visible on Sept 30.

AR913 was first seen on Sept 28 as type Hsx S18°/191° and was still present on the disk at the end of the month as a type Cki group. AR914, also first seen on Sept 28 as an Hsx spot S10°/183°, was still present on Sept 30, type Cai.

AR915 appeared on Sept 29 type Bxo S04°/291° and became type Dso with an area of 90 millionths on Sept 30.

H-alpha

Prominences

The month began quietly with just minor spikes being seen until Sept 5 when two hedgerow prominences were reported. Two small arc prominences were seen on Sept 6 covering S18°–S24° latitudes, which persisted in different shapes until Sept 10. A large arch prominence was seen near the north polar region on Sept 10 at 09:35 UT.

On Sept 11 two interactive prominences were seen on the eastern limb at N44° and N48° and on Sept 15 were observed as a single pyramidal shaped prominence. Also on Sept 15 a lofty prominence was seen on the western limb, veering northwards at S20° and still present on Sept 17 in a different shape.

A double low arch prominence was seen on the eastern limb at S20°–S29° on Sept 19, and also a pyramidal shaped prominence on the eastern limb at N49° plus a smaller one in the west at S44°. A detached prominence on the western limb on Sept 20 measured 130,400km.

A very high and slightly S-shaped prominence was seen on Sept 21 in the west at 10:50 UT, which was still present at 14:50 with two small prominences either side of it. Its height was estimated at 200,000km. A large prominence was seen on Sept 30 extending along the western limb from the equator southwards for a distance of 205,000km.

BAA sunspot data, 2006 September–October

	September		*October*	
Day	*g*	*R*	*g*	*R*
1	2	25	3	33
2	1	17	2	26
3	0	0	2	23
4	0	2	2	22
5	1	16	2	22
6	2	25	2	23
7	3	36	2	22
8	2	37	1	17
9	2	35	1	10
10	2	37	0	6
11	2	31	0	0
12	2	23	0	0
13	2	22	0	0
14	1	15	0	0
15	1	13	0	0
16	1	14	0	0
17	2	19	0	0
18	1	11	0	1
19	1	12	0	7
20	1	11	1	13
21	1	12	1	17
22	1	15	1	21
23	1	12	2	28
24	1	10	1	22
25	0	5	1	8
26	0	2	0	0
27	0	4	0	5
28	2	19	1	7
29	3	33	0	2
30	3	33	1	14
31			1	26
MDFg	1.33 (55)		0.89 (50)	
Mean R	17.60 (49)		12.07 (44)	

North & south MDF of active areas g

	MDFNg	*MDFSg*
September	0.06	1.36 (35)
October	0.05	0.80 (34)

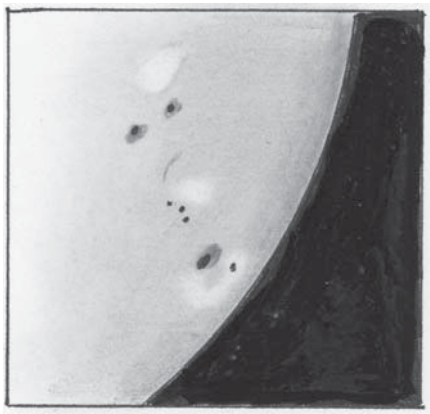
g = active areas (AAs)
MDF = mean daily frequency
R = relative sunspot number
The no. of observers is given in brackets.

▸ 21st century and gone onto broadband. My new email address is shown at the back of this *Journal*. I apologise to anyone who has tried to contact me on my old email address during the last two months, but the change unfortunately happened just after the October *Journal* went to press. This is probably as far as my conversion to modern technology will go for the present, and I will continue to peer through an eyepiece rather than use a CCD camera – although, of course, I welcome your deep sky images.

The Section communicates with members through a newsletter which is now published 3 times a year. The January newsletter should have arrived through your letter box shortly before this *Journal*. It is free to contributors to the Section and available by subscription (£4 for 3 newsletters) to everyone else. Back copies are available on the Section web site for downloading. If you wish to join the Section, or have any queries related to membership, please contact me.

Stewart L. Moore, *Director*

Notes and News



2006 October 24, 10:45 UT, 75mm OG ×90. *Drawing by Alan Heath.*

Filaments and flares

Two arrays of filaments were seen close to the SW limb on Sept 4, the first around S17° and the second extending from S47° to S53°. On Sept 6 a filament extended southwards from AR908 and the next day another longer filament stretched northwards. On Sept 8 a filament was seen near the limb near a prominence at S22°.

Brian Mitchell reported two flares associated with AR907. Jan Janssens reported two flares, Sept 9 peak 07:27 UT type SF, and on Sept 10, peak 07:21 UT type 1F, both associated with AR909.

2006 October

Most observers recorded a blank disk on Oct 10–19 inclusive, 26, 27 and 29, and all recorded a blank disk between Oct 11–17 and on Oct 26. The main activity continues to be in the southern hemisphere and overall activity was slightly down on September.

AR913 and AR914 were still on the disk from September along with AR 915. This latter Cao group was nearing the western limb as October began at S06º/290º. Eric Strach reports that 915 was not visible by 13:30 UT on Oct 1 when the group had rounded the western limb. 913 and 914 were well within the SE quadrant, the former a small penumbral spot type Cso at S18º/192º, the latter a single spot with a rudimentary penumbra at S09º/182º. By Oct 4 913 had crossed the CM whilst 914 was on it. 913 was last seen on Oct 8 approaching the western limb. 914 had decayed to an Axx spot by Oct 7 and was last seen on Oct 9.

AR916 made a very brief appearance as an Axx spot on Oct 11, S13º/107º.

AR917 appeared on Oct 20 as a small Bxo group S05º/347º, developing to a type Cso by the following day. The group was last observed by Monty Leventhal on Oct 24, type Csi. AR918 was observed by Eric Strach on Oct 21 preceding AR917 as a Cro type group at S05º/359º, and was last seen on Oct 23. AR919 appeared briefly on Oct 27 as an Axx spot S15º/238º.

AR921 was first seen as an Axx spot on Oct 29 near the eastern limb at S07º/137 and developed to type Cro by Oct 30. This group was joined by AR922 on Oct 30 type Axx at S16º/126º, which developed to type Cro by Oct 31.

H-alpha

Prominences

10 observers reported a prominence MDF of 2.98 for October.

On Oct 2 a hedgerow prominence was seen on the SE limb at low latitude extending for a distance of 46,600km. On Oct 7 a pyramid prominence was seen on the SE limb at S52º which had doubled in size by the next day, expanding to either side to cover latitiudes 45º to 52º. By Oct 10 it had shrunk to almost half its size and was no longer visible by Oct 12.

Ken Medway and Peter Meadows reported an arch prominence on the SW limb on Oct 14 and 15 with just one 'leg' of the prominence touching the limb when seen on Oct 15. Also on Oct 14 a bright short prominence was observed on the western limb; over a period of 15 minutes a detached 'blob' of hydrogen could be seen drifting away from the limb.

An interactive prominence was seen on the SE limb extending to a height of 69,200 km and an arch prominence on the NW limb to a height of 66,000km. A further interactive prominence was seen on the E limb on Oct 29 at S21º to S26º which had assumed a rather unusual shape by Oct 30.

Filaments and flares

A semi-lunar shaped filament to the S of AR917 was seen on Oct 21 and two others to the north of the spot group. They were still in evidence on Oct 22 although much diminished in size. Other small filaments were reported on Oct 23, 24, 27, 29, 30 and 31.

Few flares were reported during October. Alan Heath observed flares on Oct 21, 22 and 30. Monty Leventhal saw a surge lasting 12 minutes on Oct 28 associated with the sunspot group on the western limb.

Lyn Smith, *Director*

Asteroids and Remote Planets Section

Discoveries

Congratulations to Peter Birtwhistle (MPC observatory code J95) on discovering four Main Belt asteroids in November: 2006 VP1, 2006 WJ4, 2006 WE29 and 2006 WU129, bringing his total to 62. Peter made his first discovery, 2003 NL8, on 2003 July 14.

Lightcurves

During 2005 Martin Crow and myself submitted photometry on (218) Bianca and (423) Diotima to Dr Mikko Kaasalainen, University of Helsinki, as part of his Shape Modelling Program. This data now features in a soon-to-be published paper, 'Physical models of ten asteroids from observers' collaboration network'. The draft version can be viewed at **http://www.RNI. Helsinki.FI/~jod/temp/ten_models.pdf**. The light curve for (218) Bianca is shown in Figure 2a, and that for (423) Diotima can be viewed on the Geneva Observatory website at **http://obswww.unige.ch/~behrend/page2cou.html#000423**. Members are encouraged to send photometry which covers all or most of a complete rotation to Raoul Behrend at this location. More details can be found on the 'What to observe' page on the Section's website.

Following a request from Ellen Howell posted on the Minor Planet Mailing List to support her radar observations of (554) Peraga, several amateur astronomers replied with photometric data. The lightcurve based on data submitted by Martin Crow and myself (most of the data is from Martin) is shown in Figure 2b. The period of 13.709±0.002 hours compares very favourably with that of 13.714±0.002 hours calculated by Australian amateur David Higgins. The difference amounts to just 18 seconds. It was comforting to get confirmation of the calculated period as the previous estimate was 13.62 hours.

Pluto

The Pluto charts in the 2007 edition of the BAA *Handbook* were wrongly printed. A corrected page was issued as an insert in the 2006 December *Journal* – if any member did not receive or has lost theirs, please contact the office for a replacement. With

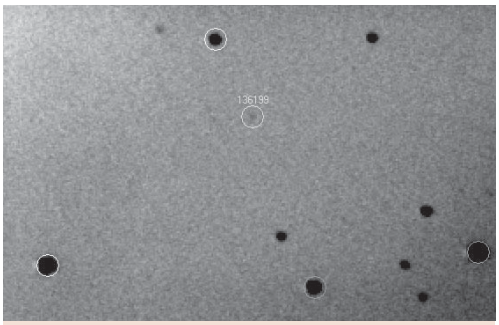


Figure 1. Image of (136199) Eris obtained by Roger Dymock on 2006 December 9, at a distance of approx. 96 AU.

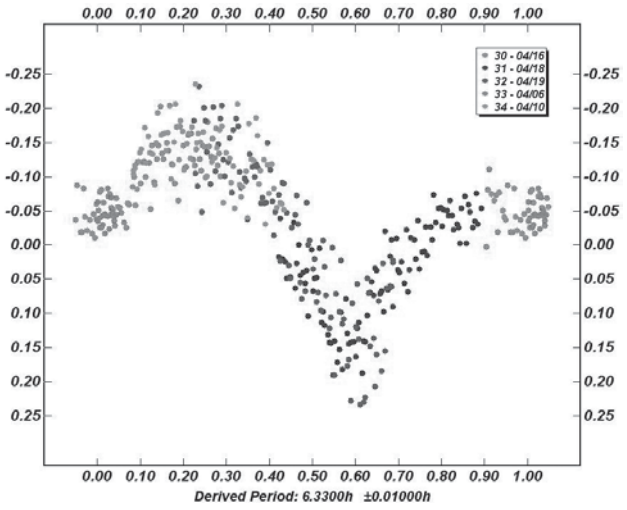


Figure 2a. Phased data plot for (218) Bianca. 0% phase JD= 2453467.351082 (corrected for light-time). *Martin Crow & R. Dymock.*

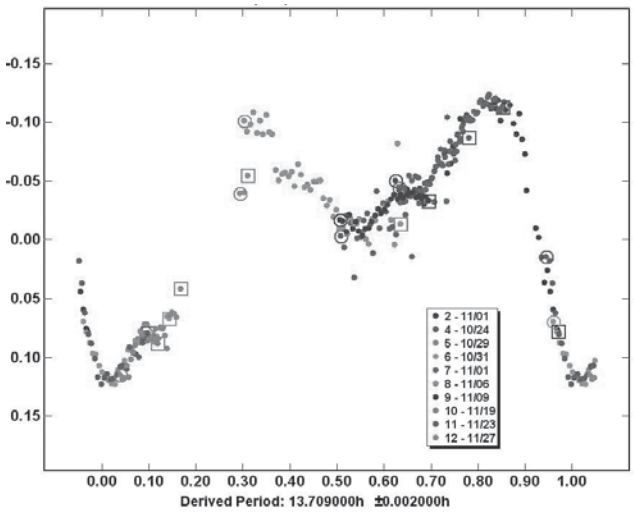


Figure 2b. Phased data plot for (554) Peraga. 0% phase JD= 2454063.235435 (corrected for light-time). *Martin Crow & R. Dymock.*

considerable help from Terry Moseley an enhanced set of charts has been added to the Section's website ('What to observe', section 1.2.4, Pluto in 2007) at **http://homepage.ntlworld.com/roger.dymock/What to observe.htm**. Included are overview charts for the whole year and detailed charts for June, July and August.

(136199) Eris (2003 UB313)

On 2006 December 9 I made a successful attempt to image this newly designated dwarf planet (and Edgworth–Kuiper belt object). It is currently just past perihelion at approximately 96 AU (9 billion miles) from the Sun. At magnitude 18.6 this is the faintest, and furthest, Solar System object I have imaged. In total I stacked 172 images, each of 30 seconds exposure time, using *Astrometrica* to obtain the image shown in Figure 1.

Roger Dymock, *Director*

Historical note

Milan Štefánik and the rotation period of Venus: a centenary for 2007

by Richard McKim

Exactly 100 years ago a paper about Venus appeared in the *Journal of the Royal Astronomical Society of Canada*. Its author was a young Slovak astronomer, Milan Rastislav Štefánik. From his studies of the planet from the Mont Blanc observatory he had deduced a rotation period for Venus of 23 hours and 20 to 25 minutes. This was entirely typical of the periods being quoted at that time: most astronomers opted for a synchronous rotation, or for one of about 24 hours. What was more remarkable was the extraordinarily diverse career the young astronomer followed.

Štefánik (Figures 1–2) was born in Košariská , Slovakia (within the then Austro-Hungarian empire) on 1880 July 21. He was educated at Charles University in Prague, following a mathematical sciences course. Štefánik happened to attend the lectures of philosophy professor Tomáš Garrigue Masaryk (the future first President of Czechoslovakia), and these inspired him to think of future cooperation between the Czechs and the Slovaks. In several political publications from that time, Štefánik drew attention to the poor situation of the repressed Slovakians. He graduated in 1904 with a doctorate in astronomy, travelled to Paris and worked for a time at Meudon observatory under its Director, Pierre Jules Janssen. Štefánik prospered, and he soon became a co-director of the Mont Blanc observatories (altitude 4810m), which had been founded by Janssen. Writing in *Říše Hvìzd* (*The Realm of Stars*) in 1932, the Czech astronomer Rostislav Rajchl described Štefánik's work on Mont Blanc, and reproduced the drawings of Venus from 1906 (Figure 3), made during his third ascent. Venus was observed on August 31 and September 2, 3 and 4. A series of drawings was taken every day between about noon and 16:00 hours Paris time.

Figure 1. M. R. Štefánik (1880–1919) as a French Army General.

The features that stand out in these drawings are the somewhat exaggerated terminator profiles and the remarkable number of small bright spots. Nevertheless there is good accord between the (presumably independent) drawings of Štefánik and his companion, the Pulkovo astronomer Alexej Hanskij. Around local noon each day there were four bright spots clearly visible within the N. polar region, but towards 16:00 hrs only two were visible, and only with difficulty. An opposite change was observed in the S. polar region: around noon no bright spot was seen there, but towards 16:00 hrs two or three bright spots could be seen. The terminator profile around noon was considerably different from that around 16:00 hrs. All this seemed to imply rapid rotation. The configuration of markings on September 3 at 12:55 hrs seemed to be the same as on Sept 4 at 12:15 hrs. Likewise, Sept 3 13:10 hrs and Sept 4 12:35 hrs seemed to form a pair. Hence the deduced rotation period. Although

Figure 2. A modern photograph of the Štefánik statue at Petrín Observatory, Prague.

the daily sequences were in favour of the rapid rotation, seeing conditions at 16:00 hrs were inferior to those experienced near noon.

In the year after Janssen's death in 1907, equipment was recovered from the summit, and Štefánik undertook astronomical and meteorological observations (mainly of solar eclipses) as well as political tasks in various countries. Štefánik became well-known for his spectral analysis of the Sun's atmosphere. In Tahiti he built an observatory and a meteorological network, and observed a total solar eclipse and Halley's Comet. He established contacts with leading scientific, artistic, political, diplomatic and business personalities. In 1912, he received French citizenship. Štefánik clearly understood that the defeat of Austria-Hungary (and Germany) in World War I could give the Slovaks and Czechs a chance at independence. Štefánik was trained as an aviator in the French army, was sent to Serbia to fly many missions over enemy territories, and returned to Paris at the end of 1915. There he became acquainted with Edvard Beneš and made contact with his former professor, Masaryk. In 1916, these three men founded the Czechoslovak National Council (the nucleus of Czecho-Slovak resistance abroad). Štefánik helped them to obtain the support of some of the most important figures among the Allies: he organized Masaryk's meeting with the French Prime Minister Aristide Briand. In 1916, Štefánik and the Czecho-Slovak resistance started to create army units or 'legions' that would fight against Austria-Hungary and Germany. For this purpose, Štefánik (as Minister of War of the Czechoslovak Government in exile, and now a French Army General: Figure 1) went to Russia and then to the USA. It was largely due to his personal diplomatic skills that the Allies recognized the Czechoslovak National Council as a de facto Government, and the legions as Allied forces.

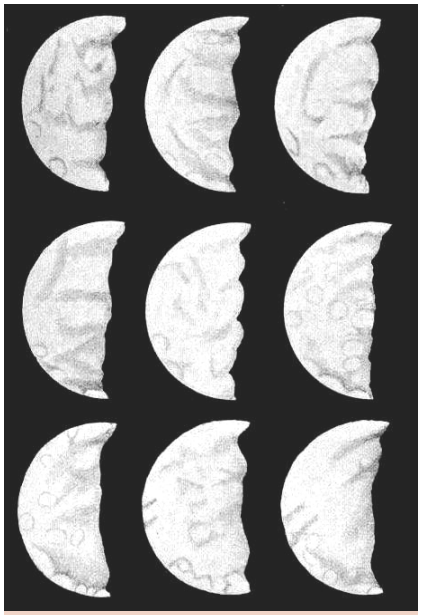


Figure 3. Venus drawings made on Mont Blanc by Štefánik (S) and Hanskij (H). *Top row, left to right:* 1906 Sept 3d 12h 30m (H), 12h 55m (S), 13h 10m (H); *Middle row, left to right:* 1906 Sept 3d 11h 53m (H), 12h 15m (S), Sept 4d 11h 35m (H); *Bottom row, left to right:* 1906 Sept 4d 10h 30m (S), 10h 45m (H), 11h 05m (S).

In 1919 April we find Štefánik at the main Italian military base in Padua, arranging the dissolution of the Italian military mission in Czechoslovakia. Finally he decided to fly home to Slovakia direct from Italy in an Italian military plane: this would, however, turn out to be a fateful decision. On May 4 his plane tried to land in Bratislava (at the time being threatened by Hungarian troops), but was apparently shot down, and it crashed killing Štefánik along with two Italian officers. It seems that the plane's Italian tricolor had been mistaken for the Hungarian one.

In 1928 a fine public observatory was established on Petrín hill, above Prague, (Figure 4) and named after Štefánik. A bronze statue of the soldier-astronomer, dressed as an aviator, stands in its courtyard (Figure 2). In an internet interview marking the 125th anniversary of Štefánik's birth, historian Jan Kuklik from Charles University (Prague) said: 'I must say it's a great pity that Štefánik is sometimes a little bit forgotten... he was almost of the same importance as Masaryk regarding the establishment of the new Czechoslovak state.'

Štefánik was by no means the only astronomer to have failed to establish the correct rotation period of the Venusian atmosphere, but he was certainly one of the most remarkable personalities ever to have addressed the question.

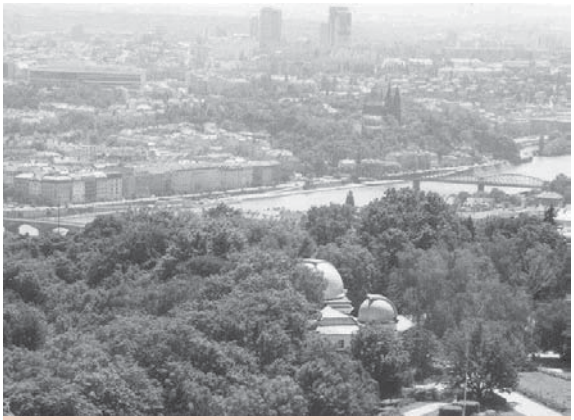


Figure 4. The domes of Prague's Štefánik Observatory seen against the city and the Vltava river, viewed from the observation tower on Petrín hill. *(R. J. McKim)*

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