ISSN 0917−7388

COMMUNICATIONS IN 東亞天文學會『火星通信』since 1986

MARS No. 330

25 April 2007

OBSERVATIONS Published by the OAA Mars Section

CMO 2007/2008 Mars Report # 01

OAA Mars Section

NOW the season of the 2007/2008 has begun. We here review the CMO observations made from the end of January (at λ=170°Ls on 20 Jan) to 15 April 2007 (λ=220°Ls, φ=25°S, ι=32°). The apparent diameter however was mere δ=5.1" even on 15 April, and its altitude was very low from Japan (apparent declination was -10° on 15 April).

♂・・・・・・愈々2007/2008年の接近が緒に就いた。今回は一月後半(20Janでλ=170°Ls、δ=4.0")から15April(λ=220°Ls、φ=25°S、ι=32°)迄の觀測を見る。但し、火星が視直徑は15Aprilでもδ=5.1"である上、未だ日本からは低空である(15Aprilでも南緯10°)から、好い結果は望めない。

♂・・・・・The following observers contributed this period. We should like to pay respect to HEFFNER (*RHf*), VALIMBERTI (*MVl*), KUMAMORI (*Km*) and BUDA (*SBd*) for their early starts.

♂・・・・・・觀測は次のように報告された。濠大利亞と日本だけであるが、早くに觀測を開始されたヘフナー(RHf)氏、ヴァリムベルティ(MVl)氏、熊森(Km)氏、ブダ(SBd)氏に敬意を表する。

BUDA, Stefan スティーファン・ブダ (*SBd*) 墨爾本 Melbourne, Australia
1 CCD (G&B) Image (10 April 2007) *f*/35⊗40cm Dall-Kirkham with ToUcam Pro

HEFFNER, Robert ロバート・ヘフナー (*RHf*) 名古屋 Nagoya, Aichi, Japan
3 CCD Images (2, 18 February; 11* April 2007) *f*/45⊗28cm SCT with Lu075⊗ and DMK21AF04*

KUMAMORI, Teruaki 熊森 照明 (*Km*) 堺 Sakai, Osaka, Japan
1 CCD Image (9 April 2007) *f*/50⊗20cm Dall-Kirkham with a DMK21AF04/ToUcam

MINAMI, Masatsugu 南 政次 (*Mn*) 福井 Fukui, Fukui, Japan
11 Drawings (20 January; 4, 19, 20 February; 5, 7, 9, 11, 14 April 2007)
400, 600×20cm Goto ED refractor* *Fukui City Observatory 福井市自然史博物館天文臺

NAKAJIMA, Takashi 中島 孝 (*Nj*) 福井 Fukui, Fukui, Japan
3 Drawings (20 January; 23 February 2007) 400×20cm Goto ED refractor*
* Fukui City Observatory 福井市自然史博物館屋上天文臺

VALIMBERTI, Maurice モーリス・ヴァリムベルティ (*MVl*) 墨爾本 Melbourne, Australia
2 CCD Images (5, 6 April 2007) *f*/30⊗35cm SCT with a ToUcam Pro

♂・・・・・・This apparition the planet is approaching very gradually, the angular diameter δ does not rise enough to cope with the rapid turning of the Martian seasons. At Fukui, NAKAJIMA (*Nj*) and the present writer (*Mn*) started earlier in mid-January when δ=4", but we failed several mornings until 20 Jan (λ=170°Ls) when however it was scarcely possible to discern the sp region and the dark markings (the apparent declination was near -24°). On 2 Feb (λ=177°Ls), however, HEFFNER (*RHf*) produced a good image by using an IR pass filter at ω=085°W where the southern markings are shown as expected. On 18

Feb (λ=185°Ls) at ω=281°W, he also shot Syrtis Mj clearly. At Fukui, we took aim at Aurorae S on 7 Feb and Syrtis Mj on 16 Feb but in vain. It was on 19 Feb (λ=186°Ls) at ω=265°W, and on 20 Feb (λ=187°Ls) at ω=258°W, 267°W that we could catch Syrtis Mj faintly and the evening side of M Cimmerium darker. The central latitude was φ=14°S, and so the spc was expected, but it was no more than to see its existence. Utopia was faint, and the nph looked thick. We were attentive because the space and the time were then at the same season as those of the occurrence of the 2001 dust storm, but the seeing and the diameter were not enough. On 21 Feb, the seeing broke further. Same on 23 Feb (λ=189°Ls) by *Nj*. In March at least at Fukui the weather was much dismal (cold and even snowed. They say it snowed first in Tokyo on 16 March this year). On 5 April (λ=214°Ls) *Mn* saw the spc clearly bounded by the darker region at ω=169°W, and already at ω=160°W, VALIMBERTI (*MVl*) produced an image (his first shot this season). His image on the following 6 Apr (λ=214°Ls) at ω=146°W was more excellent showing M Sirenum and the faint nph as well as the big spc. On 9 Apr (λ=216°Ls), KUMAMORI (*Km*) produced the image at ω=120°W where the spc was shot. It was fine at Fukui, and *Mn* observed at ω=122°W. On 10 Apr (λ=217°Ls), BUDA (*SBd*) took at ω=113°W, and at the same angle *RHf* produced an image on the following day (11 Apr (λ=217°Ls)). *SBd*'s image, failing in securing the R image, is a composite of G&B with a strange colour, but it shows the spc well. Alt=39°! On 11 Apr, *Mn* observed at ω=100°W, but nothing to add. On 14 Apr (λ=219°Ls) *Mn* watched around ω=085°W, but could not discern Solis L from others. It became warmer in mid-April and the final altitude was higher than before to the effect that the final image became more stable from Fukui.

♂‥‥‥今回火星は近づいて來る度合が緩慢である爲に火星の季節の推移に比して視直徑δが上がらない。更に視赤緯が南を向いて日本からは朝方火星は低く、期間末でもやっと低空から抜け出す像が辛うじて見えるかといった具合である。福井では中島(Nj)氏と一月中旬δ=4"という時點で合同觀測を開始したのであるが、幾度も曇ったり晴れても像が悪く、やっと20Jan(λ=170°Ls)が最初となった。然し、南極と暗帶が見分けられるかどうかといった程度であった。視赤緯は南緯24°に近い。その點2Feb(λ=177°Ls)のヘフナー(RHf)氏の像は優れている。IR Pass Filterを使ったω=085°Wだが、南半球の暗色模様をほぼ描寫した。18Feb(λ=185°Ls)にはω=281°Wでシュルティス･マイヨルを明確に撮っている。福井では7Febにアウロラエ・シヌスの邊り、16Febにシュルティス･マイヨルの邊りを見たがスケッチには到らず、19Feb(λ=186°Ls)ω=265°W、20Feb(λ=187°Ls)ω=258°W&267°Wで觀測出來たのみである。シュルティス･マイヨルは仄かに、マレ･キムメリウムの夕方が濃く見えていた。φ=14°Sで南極冠は見える筈であるが、確認出來る程度である。ウトピアが少し見える様で北極雲は濃い。實は場所も時期もこの邊りは2001年の黄雲の發生時期であるから注目したのであるが、好く晴れても高度が低くシーイングが伴わない。21Febにはが更に悪化した。23Feb(λ=189°Ls)のNj氏も南極冠が見える程度であった。三月は少なくとも福井は寒氣が入り全く駄目であった。5April(λ=214°Ls)にはω=169°Wで筆者は南極冠と取り巻く暗帶を見ることが出來たが、既にヴァリムベルティ(MVl)氏がω=160°Wで撮った。像としては氏の翌日の6Apr(λ=214°Ls)ω=146°Wが優れている。南極冠が明白で、マレ･シレヌムが出ており、北極雲も少し見える(φ=24°S)。次いで熊森(Km)氏が9Apr(λ=216°Ls)ω=120°Wの像を撮った。模様の起伏のない處だが南極冠を出した。福井ではω=122°W。10Apr(λ=217°Ls)にはブダ(SBd)氏がω=113°Wで撮り、RHf氏が偶然同じ角度で11Apr(λ=217°Ls)で撮った。SBd氏はR光を失敗し、BGの合成で奇妙な色だが南極冠は明確である。高度は39°! 11Aprには福井でもω=100°W等で觀測が出來た。14Apr(λ=219°Ls)にはω=085°Wであったが、ソリス・ラクス等は分離できない。少し暖かくなったのと、少し安定する程に高くなった。視赤緯は四日に1°は回復し、日の出も相當早くなり、ラッシュ前に23km三國に歸れる。

♂‥‥‥In the next issue we shall review the observations made during a one-month period from 16 April 2007 (λ=220°Ls, δ=5.1") to 15 May 2007 (λ=239°Ls, δ=5.5").

南　政次 M MINAMI

■CMO 2005 Mars Note (13)

Föhn Phenomenon over Arsia Mons

アルシア・モンスでのフェーン現象

■ 南 政次 M MINAMI

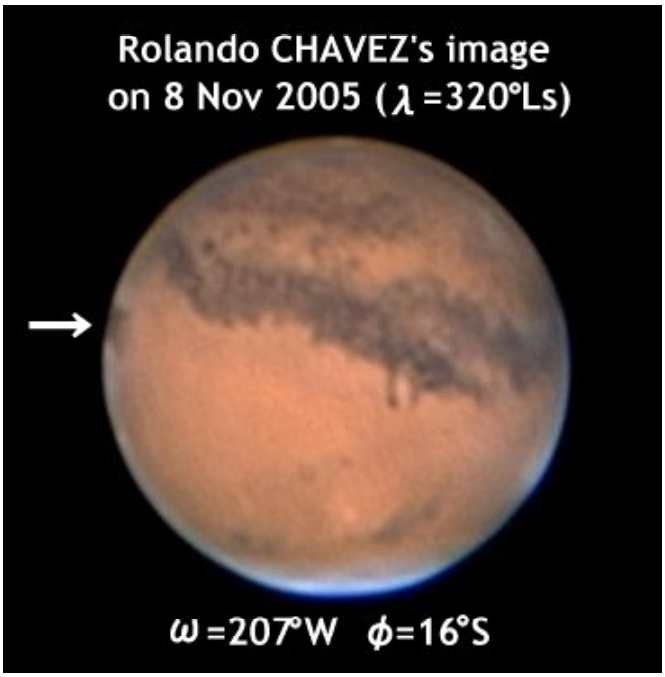
AS to the peculiarity of the Arsia evening cloud, we reported and analysed the case in 2005 in Note (4) in CMO #321 (25 July 2006), where we also touched on a strange dark spot near the evening limb which was seen at the opposition time just when Arsia Mons went to the rear side at the beginning of November 2005.

First, on 6 Nov (λ=319°Ls, ι=1°) Sean WALKER (*SWk*) showed this dark terminator spot at ω=189°W (still inside the disk), and at ω=205°W (near the terminator; time separation of one hour was too long. One shot was needed at around ω=199°W), and even at ω=221°W it looks to remain inside the disk. Kent De GROFF (*KGr*)'s image at ω=219°W of course shows the dark spot; since the image well depicts the terminator mist. His ω=230°W may also show a bit. On 7 Nov, few observations of the angles were made: Just Rolando CHAVEZ (*RCv*)'s image at ω=216°W may show a surviving of the spot. On 8 Nov (λ=320°Ls), it is faintly seen inside the disk on the image of David ANDERSON (*DAd*) at ω=186°W, and, before that, Nicolas BIVER (*NBv*) showed its original shadow at ω=163°W. The dark limb spot however became quite distinct on Larry OWENS (*LOw*)'s images at ω=198°W, and especially on the series of *RCv*'s images at ω=198°W, 207°W, 213°W (in #321 we cited his image at ω=198°W: Here we cite his at ω=207°W): His (obtained by the use of a 31cm Cave Newtonian equipped with a ToUcam 840) show well the evening mist and are instructive as stated below. The image of Joel WARREN (*JWn*) at ω=214°W also proves the dark area as a depression of the limb. The planet was at opposition on the day, and the HST also shot and delivered later an image:

http://imgsrc.hubblesite.org/hu/db/2005/34/images/p/formats/full_jpg.jpg

http://hubblesite.org/newscenter/archive/releases/2005/34/image/p/format/large_web/

As to the dark spot on the HST image, Jim BELL called it a “divot” (see his LtE in CMO #314 dated 11 Dec 2005).



On 9 Nov (λ=321°Ls, ι=2°), Don PARKER (*DPk*) shot at ω=196°W, while the spot looks uncertain because the limb was ill processed in B. On the day, the preceding image was the one made by *SWk* at ω=164°W (similar to the angle of *NBv* the day before) and so much missing the angles between the two. On 10 Nov (λ=322°Ls), GRAFTON (*EGf*) produced the angle ω=206°W, which shows the dark limb spot (less evident than *RCv*'s ω=207°W image on 8 Nov, but it must have been because of a difference of the haze descriptions in B). Henceforward the angles moved out from the US, and pertinent images are few, but Jim PHLLIPS (*JPh*)'s image on 12 Nov (λ=323°Ls) at ω=180°W shows a shadowy spot following Arsia Mons inside the disk. More inside images of the spot may be referred in Bill FLANAGAN (*WFl*)'s on 13 Nov (λ=323°Ls) at ω=164°W & 172°W.

Next the planet moved over the Pacific Ocean and to the Oceania-Orient. It was not until 20 Nov (λ=327°Ls) however that the angle ω=203°W reached Maurice VALIMBERTI (*MVl*) in Australia. Compared with the image of *SWk* at ω=205°W on 6 Nov, the dark limb area looks faint and not obvious. However *MVl* shows us a B image, and so we will return later on this point. *MVl* took also on 23 Nov (λ=329°Ls) at ω=189°W: The area on the image looks similar to the one on *SWk*'s ω=189°W image on 6 Nov. However the phase angle ι reversed (ι=14° after opposition). On 25 Nov (λ=330°Ls),

Teruaki KUMAMORI (*Km*) at ω=177°W shows by the use of a 60cm Cass a cloud over Arsia Mons just like the case on *JPh*'s image on 12 Nov. Near opposition, it is difficult to discriminate between the diffused reflection and a white cloud, but since now ι=15°, it is apparently the white cloud.

Then how was the situation before 6 Nov? The area was facing to Europe, but few observations are pertinent to this problem. On 2 Nov (λ=317°Ls), Jan ADELAAR (*JAd*) took an image at ω=195°W, and on 29 Oct (λ=315°Ls) Christophe PELLIER (*CPl*) at ω=195°W, but the dark patch is unknown on their images; since in the case of *CPl*, ι=08°, and so the angles might have possibly been in short.

So is it possible to state that the dark-limb-spot phenomenon is inherent in the opposition time just like other opposition effects? However we have never heard about this kind phenomenon (*see however ***Note Added***). In 2003, the planet was at opposition on 30 August (λ=251°Ls), but though the evening cloud was thick near the limb, no explicit presence of the dark spot was observed. For instance, images of Wei-leong TAN (*WTn*) on 31 August (λ=252°Ls) 2003 show the area before Arsia Mons is hidden and after hidden respectively at ω=196°W and ω=218°W (unfortunately ω=207°W is missing) but such an explicit dark limb spot cannot be found as the one evident on *RCv*'s images on 8 Nov 2005 at ω=198°W, 207°W and 213°W (just differently in 2003, φ=19°S, while in 2005 φ=16°S). In the case of 2001, the opposition occurred on 13 June 2001 (λ=182°Ls) with observations done scarcely, but the results look to give no dark spot near the limb. Around the season, the evening white clouds on Arsia Mons as well as on Olympus Mons should have been visible, while the great dust storm started soon, and no white cloud existed around there when the region came to our land.

Hence we consider here that even if the phenomenon has something to do with the opposition it must have not been primary. If the dark spot is not a real dark marking, is it then 1) a shadow of something real? Or 2) is it caused by the washing of the surface sand by something like the dust swirling? Or otherwise 3), does it imply the area was very wet? The item 1) is impossible because Mars was at opposition, and concerning 2) there was no symptom of dust around there. The 3) is reciprocal to the following more possible supposition 4). Here we set out the 4th possibility that the limb area is higher in surface air temperature than the other evening limb sides so that the haze or mist which can usually be seen covering the limb or terminator vanishes just only at the western flank and foot of the Arsia ridge. This idea was suggested by the limb mist distribution on the images of *RCv* as well as of the HST. Usually the *limb darkening* is weakened by a distribution of white mist or haze along the limb or the terminator, but it may be natural for any part to look darker if the evening or morning mist vanishes over there, and so we don't consider that any other particular primary darkening reason exists.

Why and when then can the western side of the Arsia ridge be free from the usual saturation or precipitation of the water vapour near the evening edge? One possibility is the Föhn phenomenon.

The fact that, at the northern winter season, Arsia Mons is still covered by the evening covering cloud, while Olympus Mons is free from the evening cloud was pointed out by the OAA Mars Section in 1988 and 1990, and as shown in Note (4) of CMO #321, this was proved based on the MGS observations from 1999 to 2001 by J BENTON and others, in *Icarus* **165** (2003) 34.

As Arsia Mons goes to the afternoon side, at the preceding side of the Arsia ridge the ground air is as it were forced to move upslope and be cooled down by the dry adiabatic lapse rate, but if it reaches the intersection with the moist adiabatic curve, it slows down to be cooled by the moist adiabatic lapse rate and finally the water vapour contained will be precipitated. There is then two ways for the ascending air with saturation to follow: If there is caused a large difference of the temperature of the upper atmosphere from the ground air temperature as it goes to the evening side, the ascending air (cloud as well) will continue to further ascend beyond the summit of Arsia Mons because its temperature is higher than the surroundings, while if the ascent curve implies still a small difference between high and low altitude temperatures even if the area reached the evening limb, the air will pass the summit and then will begin to descend

down the western slope. In this "stable" case, the air goes down by the dry adiabatic lapse rate, and hence its temperature when the air reaches the foot must be *higher* than the original one. So if any mist is seen to creep on the western foot near the evening limb, it may occur the case where just the area behind the Arsia ridge can be free from the moist mist.

Incidentally, it is usual that the evening clouds covering the crests of the Tharsis ridge as "orographic clouds", but usually what we saw at the Tharsis ridge or Olympus Mons must have been "unstable" cloud which does not particularly descend. On the other hand, "the orographic cloud" in meteorology is assigned rather to the "stable" one and sometimes associated with the rotor clouds because of oscillations.

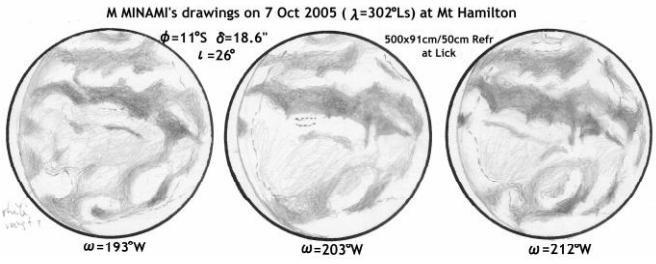
Here we see it is not always easy to encounter the case of the dark limb spot: At least in order for the Föhn wind to blow, it is necessary that the ascent curve keeps upright from early afternoon to the very evening, and the foot of the Arsia ridge must be moist enough to produce the evening creeping mist in the evening. In some case when the phase angle ι is large, the mist looks weaker and the contrast must be weakened. If the ascent curve tends to lie down as the evening gathers, then the Föhn phenomenon does not occur and the cloud at the summit of Arsia Mons just further thickly develops upwards without the dark shadow at the western foot. Conversely, if the dark spot appears, the orographic cloud may be weaker. We should say that in 2003 at around λ=250°Ls, the Arsia evening cloud was thick, while in 2005 at around λ=320°Ls, the Arsia orographic cloud looked fainter. The relationship between the ascent curve and the season λ needs to be further investigated.

Masami MURAKAMI (*Mk*) evaluated that the latitude width of the dark limb spot is about 10 degrees from 05°S to 17°S based on the images of *RCv*, HST et al. Since the summit of Arsia Mons is located at 09°S, the shadow extends to WS, but as the Mola elevation map says its ridge has a southern extension, and hence the location is topographically consistent. Longitudinally at *RCv*'s ω=198°W, the crest of Arsia Mons is inside the disk, while at ω=207°W it is on the boundary, and at ω=213°W it went to the rear side.

Masami (*Mk*)'s further evaluation was made also on *MVl*'s B image on 20 Nov 2005 (λ=327°Ls, ι=12°) at ω=203°W where the Arsia evening cloud looked to stay inside or on the border. His measurement says that the location of the cloud is at about 10°S, and so this is at the Arsia summit. So after ten days from the *SWk*, *KGr*, *LOw* and *RCv* case, the cloud must have been to turn out to be "unstable."

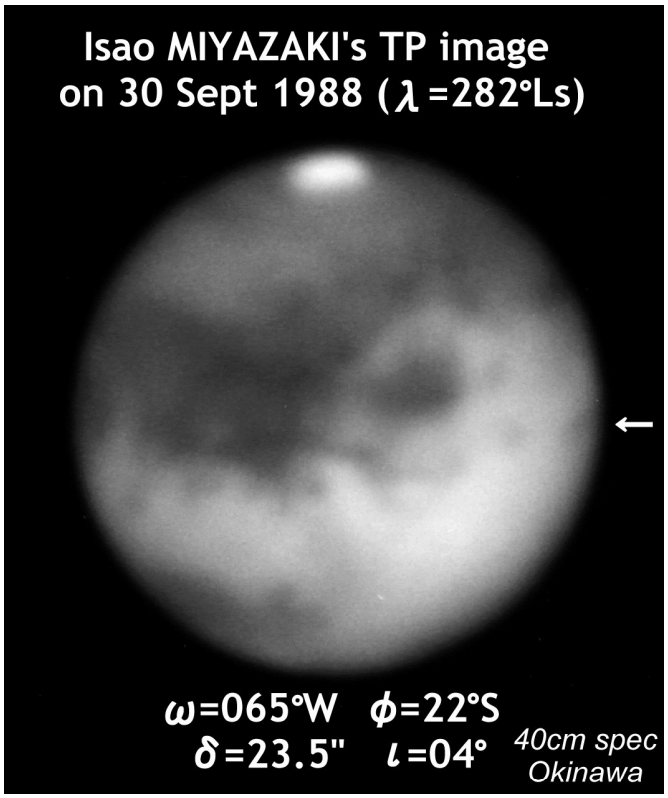
On the other hand, in the case of *CPl*'s B: on 29 Oct 2005 (λ=315°Ls, ι=08°) at ω=195°W, this terminator must have been to be covered less by the evening mist (slightly early image might have been necessary to see the full crest because of a slightly large ι).

Finally we are in a position to add two other cases, though both were already stated in #321: First one is about the present writer (*Mn*)'s observations on 7 Oct 2005 (λ=302°Ls, ι=26°) when he saw a dark spot near the terminator at Mt Hamilton. This was seen up until ω=212°W, and the day was far from the opposition day (ι was large) so that it looks different from *RCv*'s case at ω=213°W on 8 Nov. However on the day the evening terminator mist was so noticeable that we can suppose it was also due to a Föhn phenomenon. Thoughtlessly at the moment *Mn* did not pay much attention to the location and merely considered that it must have been a dark real spot which could only be detected by the big aperture he was just using (there was also a possibility it was



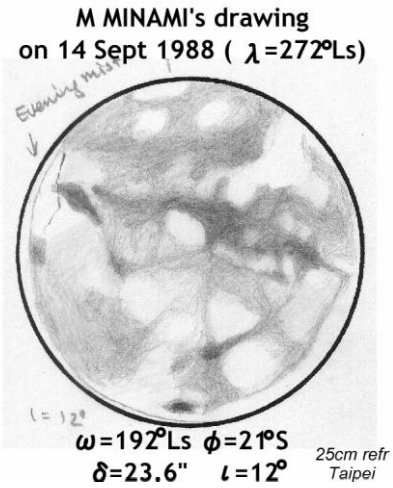
a shadow of a crack since ι was large), and so he missed to certify that it was because of the contrast effect or not.

The other case is the one observed by Isao MIYAZAKI (*My*) in the 1988 apparition when he detected a dark segment following Arsia Mons at the morning terminator on 30 September 1988 (λ=282°Ls, ι=4°, φ=22°S and δ=23.5"). Mars was at opposition on 28 Sept at 3h GMT. This segment or patch was very apparent both at 14:39 GMT (ω=065°W) and 19:42 GMT (ω=066°W) (but not on the image at 17:08GMT (ω=101°W)) on the



TP2415 images shot by a 40cm Newtonian at Naha. Here is reproduced one of them newly by *My*'s courtesy. No filter was used, but B image is missing. The season was already in the second peak period, and Olympus Mons was free from the cloud and shining from morning to evening. As is well known, any orographic cloud is not known on the morning side, while if the morning mist crept on the ground it was possible for the Föhn wind to blow downslope from the crest to eliminate the morning mist locally. Unfortunately, *Mn* could not observe during the period from 27 September to 2 October because of the poor skies at Taipei, Taiwan, but at that period the morning mist was frequently observed (thick for instance when Syrtis Mj appeared from the morning limb). *My* himself on 26 September produced a drawing at ω=138°W (slightly far) and noted the "following limb haze" was bright. On 26 Sept, Tadashi ASADA (*As*) at Fukuoka made B images by a 30cm Newtonian at ω=094°W, 114°W (by the use of a Comet filter A exposed on TMAX400), and they all show the limb haze clearly. *As* also produced a series of B images on 27 Sept 1988 at ω=078°W, 093°W, 107°W which all prove the limb covered by the thick morning mist similarly, and so we can suppose it was so when ω=065°W (maybe not yet higher at Fukuoka). Incidentally *As* at that time used to make a heterodox set of three images at one session; one is made from Fujichrome 100D, the second by TP2415 without any filter, and finally TMAX400 for B. TP2415 did not show the morning limb haze, but his B was well descriptive. So it was possible that the Föhn phenomenon worked though it is uncertain the contrast effect could be produced on TP2415.

(****Note Added***): When the present writer (*Mn*) thumbed through his Sketch Book of Mars compiled in September 1988 to look for the morning side corresponding to *My*'s case on 30 September, he came across his forgotten drawing No.490 made on 14 Sept 1988 (λ=272°Ls) at ω=192°W (made at Taipei by the use of a 25cm refr) where a strange dark area similar to the 2005 case was drawn at the evening terminator (here reproduced, while Observing Note says the dark area was not well mapped). So déjà-vu? The phase angle read ι=12°, and fortnight before opposition. Remarkable was that the evening mist was thick at least at its southern side. No preceding observation on the day, and the following one at ω=202°W does not show the spot any longer. On 14 Sept, *My* shot at ω=201°W on TP2415 but the area looks obscure. On 15 Sept *Mn* started from ω=181°W, and observed at ω=191°W, but neither shows the dark area (not also at 200°W and so on). A few days later the evening Arsia Mons appeared as thickly covered [on 19 Sept (λ=274°Ls) as shown by Motomaro SHIRAO (*Sr*), Tokyo, at ω=163°W (TP2415, B390 filter) and by *My*, Okinawa, at ω=187°W (visual), and on 23 Sept (λ=278°Ls) by *Mn*, Taipei, at ω=178°W and so on]. *Sr*'s as well as *As*'s B photos did not show Olympus Mons, while usual images on TP2415 without filter show clearly the shining circle (apparent also to the naked eyes).



アルシア・モンス夕雲の特異性については CMO #321 (25July2006號)で特に2005年の現象に關して詳しく述べたが、その中で2005年十一

月上旬、像の夕端でアルシア・モンスの隠れたその西側に濃い陰翳が見られた事に就いても觸れている。

先ず、6Nov(λ=319°Ls、ι=1°)にウォーカー(SWk)氏がω=189°W(内部)、205°W(縁)で、この陰翳を示し(一時間差は長すぎる。せめてω=199°Wでワンショットが欲しい)、ω=221°Wでも若干殘って居るかといった状況であった。デグロフ(KGr)氏のω=219°Wでは勿論殘っているが、これは特に縁霧が効いている爲と見做される。ω=230°Wでも可能かも知れない。7Novには當該域の觀測が無く、チャベス(RCv)氏のω=216°Wの殘像があるかといった程度で他は殘念ながら角度を外している。8Nov (λ=320°Ls)にはアンダーソン(DAd)氏のω=186°Wの内部でやや淡く見られ、それに先だってω=163°Wのビヴェール(NBv)氏のスケッチにも陰翳は出ているかも知れない。然し、クッキリするのはオーエンス(LOw)氏のω=198°W、RCv氏のω=198°W、207°W、213°Wのシリーズである(#321にはω=198°Wを引用した、今回英文の部ではω=207°Wを引用している)。特に(後述するように)RCv氏の三聯は水蒸氣の描寫が秀逸で參考になる。ウォーレン(JWn)氏のω=214°Wにもアルシア・モンスは沈み蔭が凹みとなって顕れている。なお、この日は衝日で、HSTが撮像しており、

http://imgsrc.hubblesite.org/hu/db/2005/34/images/p/formats/full_jpg.jpg

http://hubblesite.org/newscenter/archive/releases/2005/34/image/p/format/large_web/

で見られる。この像での陰翳についてはベル氏がCMO#314のLtE(11Dec2005附け)で"divot"として述べている。

9Nov(λ=321°Ls、ι=2°)には唐那･派克(DPk)氏のω=196°Wにやや氣配があるが、Bの無理處理に起因する縁のボケでよく判らない。この日はSWk氏のω=164°W(前日のNBv氏の角度に近く描寫も似ている)との間が抜けている。10Nov(λ=322°Ls)にはグラフトン(EGf)氏のω=206°Wがあり、これには出ている(8NovのRCv氏のω=207°Wほど鮮明ではないが、B描寫の違いであろう)。その後角度がずれて行き、また良像も少なくなるが、12Nov(λ=323°Ls)のフィリップス(JPh)氏のω=180°Wでは内部のアルシア・モンスの西側に淡く見えている。内部の像としては13Nov(λ=323°Ls)のフラナガン(WFl)氏のω=164°W、172°Wが參考になる。

以後太平洋、オセアニア・東洋へと移るわけであるが、ヴァリムベルティ(MVl)氏がω=203°Wに初めて辿り着いて撮るのは20Nov(λ=327°Ls)となってしまう。6NovのSWk氏のω=205°Wに比べてこの像ではハッキリしない。然し、B像が提出されているのであとでもう一度採り上げる。MVl氏は23Nov(λ=329°Ls)にω=189°Wを撮る。外見上はSWk氏の6Novのω=189°Wの陰翳と變わらない様に見える。ただιが反轉している(衝後ι=14°)。25Nov(λ=330°Ls)の熊森(Km)氏の60cmCassでのω=177°Wでは、12NovのJPh氏の像に似ていて、アルシア雲が見えている(衝前後では亂反射と白雲との區別が難しいが、既にι=15°である)。

一方、6Novの前はどうかというと歐羅巴側になるが、好い觀測は多くなく2Nov(λ=317°Ls)のアデラール(JAd)氏のω=195°W、29Oct(λ=315°Ls)のペリエ(CPl)氏のω=195°Wぐらいであろうか。この時ι=08°で角度が足りないかも知れないが陰翳の痕跡もない。

では、この陰翳は衝のとき特有であったの(衝効果の一種)であろうか。然し、夕方のこの現象に就いては過去の記憶が無く(*但し、末尾のNote Added參照)、2003年の場合は衝は30Aug(λ=251°Ls)でアルシア・モンスの夕雲は縁近くでは非常に濃くなっているが、同じ様な陰翳は強くは出ていない。雲が夕端に隠れる前と後の像は例えば31Aug(λ=252°Ls)2003に陳韋龍(WTn)氏がω=196°W(没前)、218°W(没後)に撮っているが、8Nov2005のRCv氏の畫像のように強い陰翳の痕跡があるようには思えない(ω=207°Wが無いのは殘念、但し2003年はφ=19°S、2005年はφ=16°Sの違いがある)。2001年には衝は13June2001(λ=182°Ls)であったが、當該域の觀測は豊富ではなく不明である、というより存在しなかったように思われる。季節ではアルシア夕雲は強く存在するはずであるが、直後2001年大黄雲が起こり白雲は終息した。

從って、ここでは衝効果は二次的なものとして考えるが、もともと陰翳はその部分が暗部でなければ、1)蔭か、2)黄雲に砂が洗われたか、或いは3)地面が水分を帯びたか、であろうが、1)は衝だから無く、2)はその兆候が見られない。3)は寧ろ次の可能性4)と相反する。ここで4)とするのは、この部分は夕縁の他の部分とは違って寧ろ氣温が高

く本來縁に見られる夕霧が消えている、と考えるものである。これはRCv氏の畫像やHSTの畫像に依っているが、暗く見えるのは本來水蒸氣のない状態での周邊減光に依るものが第一義で、特別な濃化現象が大きな働きをして暗くなっているものでは無いと考えた方が好さそうである。

では、どうしてこの部分に水蒸氣の霧化が存在しないかといえば、それはフェーン現象に依るのだろうと思う。

この時期、オリュムプス・モンスは夕雲から解放されるのに對して、アルシア・モンスは依然夕雲を被っていることは1988年、1990年のOAAの發見であるが、これは#321のNote(4)で紹介したように、J BENTON et al、*Icarus* **165** (2003) 34でMGSの結果から證明された通りである。

アルシア・モンスが午後に入ると、まだ地表と上空の温度差が小さい内に(縦軸に高度、横軸に温度を取ると状態曲線は立っている状態)、アルシア・モンスの東側ではいわば強制的に上昇氣流が起こり、この氣塊は最初乾燥断熱減率で温度を下げながら上昇するが、湿潤断熱曲線に交叉する點まで來ると湿潤断熱減率で下がって行き、遂に水蒸氣が霧化する譯である。ここで二通りの事が考えられる：1)上下温度差が大きい場合は雲となっている氣塊は周りよりも高い可能性があるから、「不安定」で更に上昇する形態を採るが、2)もし依然上下温度差が小さい場合は氣塊の温度は周りよりも低い温度にある譯であるから、「安定」でその後はこの氣塊は山の反対側に下降し、乾燥断熱減率で降りて行くから、地面に降りたときは氣塊の温度がもとの温度より高くなっており、強制上昇を受けなかった周りの氣温より高く、もし夕方に地を這う霧が出ている場合は、アルシア・モンスの山陰だけに霧が出ないということが起こり得るわけである。

尚、タルシス山系に掛かる夕方の白雲はいわゆる山岳雲と言われるが、實際には通常不安定な(更に上空へ發達する)雲であるように思われる。氣象學では「安定」な雲の方を「山岳雲」と呼稱するようなので注意する。

ここでフェーン現象は必ずしもいつも條件が揃うものでないことが判る。暖かい氣流の降下には、状態曲線が高さと共に餘り變わらないことを夕方まで維持出來るという條件が必要であろう。更にアルシア・モンスの周りの地表温度が地を這うような夕霧を醸す事が必要である。後者は、醸されても位相角ιに依っては夕霧が淡く見える場合はコントラストが不足になるであろうし、状態曲線が夕方で寝て來れば、たとえ夕霧が濃く出ていてもフェーン現象が起こっていなければ(この場合は山頂雲は成長する)、陰翳は顕れないわけである。逆に陰翳が顕れる場合は山岳雲は弱弱しいかもしれない。2003年のλ=250°Ls前後時點でのアルシア雲は強く、2005年のλ=320°Ls前後では弱弱しく見える。状態曲線がいつどのように変遷するかに就いてはλとの關係で更に考察が必要である。

尚、夕端での陰翳の緯度幅は村上昌己(Mk)氏の評価に依れば、05°S~17°Sにあるようである。アルシア・モンスの頂上は09°Sであるから、陰翳は山頂の西南の方に擴がっていることになるが、MOLA地形圖に依れば、山塊は南に延びているので、ほぼ地形的には合っていると思う。經度的にはRCv氏のω=198°Wではまだアルシア・モンスの頂上はディスクの内部であるが、ω=207°Wではギリギリ、ω=213°Wでは沈んでしまった状態のはずである。

一方、先に引用したMV1氏の20 Nov 2005 (λ=327°Ls、ι=12°)ω=203°WのBではアルシア・モンスの雲が殘っている様に見えるが、Mk氏の測定によると10°S前後なので、明らかにこれはアルシア・モンス上の白雲で、上の分類では「不安定な」雲であると思われ、衝後十日經ってこの時には状態曲線が寝ていたことになる。

他方、CPl氏の29 Oct 2005 (λ=315°Ls、ι=08°) ω=195°WのBではアルシア・モンスが境界だが、全體に霧の弱い時期に當たったと思われる。

扨て、ここで別のケースを二つ紹介しておく。既に#321で觸れたことだが、一つは筆者は7Oct 2005(λ=302°Ls、ι=26°)に夕端に濃い陰翳をリックで見ていることである。ただ、これはω=212°Wの最後の觀測まで見えていたので、ιが大きい分、RCv氏のω=213°Wと比べて陰翳の位置がやや違うように思われ、また衝から程遠いので別種とも考えられるが、この時は夕縁に濃い夕霧が目立っていたので、矢張りフェーンに依る長い陰翳かも知れない。殘念ながら觀測時には位置關係に意識が

向かわず、大口径で見える暗斑の一種かと軽く思っていたのであるが(表面暗斑の他、ιが大きいので亀裂による蔭の可能性もあった)、案外大口径によるコントラスト効果であったかも知れない。ただ、記憶では相當濃い印象で、コントラストだけではないという思いもある。もう少し氣を張ればよかったかと悔やまれる。

もう一つは宮崎勲(My)氏が1988年の衝時に朝方でアルシア・モンスの西側に煙の蔭のような暗條を40cmで撮ったことである：30Sept1988(λ=282°Ls、ι=4°) (28Sept3hが衝)に14:39GMT (ω=065°W)、19:42 GMT (ω=066°W)のどちらにも出ていて、話題になった。英文の部にMy氏によるω=065°Wの最近のスキャン像を掲げてある。φ=22°S、δ=23.5"であった。TP2415でフィルターは使わずに撮られている。B光はない。季節は既に第二のピークに入っていて、今回とλは違うが、やや似た状態にある。ただ朝方では山岳系の雲は知られていないが、もし、地を這うような朝霧が出ていたのであれば、山岳雲は存在しなくてもフェーン現象は起こりえたわけである。筆者(Mn)は臺北で27Septから2Octまで悪天候で觀測がなく該當の角度は得られていないのであるが、當時はシュルティス・マイヨルの朝方には霧の好く出た時期で、My氏も26Septにはω=138°Wで眼視で觀測し、Following limb hazeが明るいと記している。同日には淺田正(As)氏が30cm反射でω=094°W、114°WでB光を(Comet filter A, TMAX400)を撮っていて、このリム・ヘーズは明白である。As氏は27Septにもω=078°W、093°W、107°WとB光を撮っていてどれにも明白である(As氏は當時フジクローム100DとTP2415のフィルターを附けない像、それにTMAXでBを撮っていた。カメラ三台？)。從って、ノンフィルターでコントラストが出るかどうか解らないが、フェーンであった可能性はあるわけである。

(***NoteAdded***):1988年の朝霧の問題で、筆者の臺北での觀測帳を捲っていたら、14Sept1988(λ=272°Ls)の筆者のω=192°Wのスケッチで夕端に同じ様な陰翳が描かれていた(英文の部)。ι=12°で未だ欠けている。Noteの方にはアマゾニスに陰翳、但しうまく描けないとある。明らかに夕霧が特に南方に強く出ている。その前の觀測はなく、次のω=202°Wには出ていない。15Septはω=181°Wから開始しているが、ω= 191°W、200°W、･･･では見ていない。尚14SeptにはMy氏のω=201°WのTP像があるが、一寸不明。尚、直後には實に濃いアルシア夕雲が觀測されている[19 Sept (λ=274°Ls) には白尾元理(Sr)氏がω=163°W で強く撮った(TP2415、B390)し、My氏は眼視でω=187°Wで觀測している。23 Sept (λ=278°Ls) にはMnがω=178°Wで見ている]。當時オリュムプス・モンスは肉眼でも明らかだったが、Bでは寫っていない。 □

Forthcoming 2007/2008 Mars (6)

Ephemeris for the Observations of the 2007/2008 Mars. III

May and June 2007 (Revised)

***Masami MURAKAMI* 村上 昌己(*Mk*)**

AS a sequel to the Ephemeris II (in CMO#328), we here list the necessary elements of the Ephemeris for the physical observation of Mars from 1 May 2007 to 30 June 2007. The data are listed for every day at 00:00 GMT (not TDT). ω and φ denote the longitude and latitude of the sub-Earth point respectively. The symbols λ, δ and ι stand for the areocentric longitude of the Sun, the apparent diameter and the phase angle respectively. From this apparition, we also add the column of the Position Angle *Π* of the axis rotation, measured eastwards from the north point: This is useful to determine the north pole direction from the *p*←. The apparent declination of the planet is also given at the final column. The data here are basically based on *The Astronomical Almanac for the Year 2007*.

Date (00:00GMT)	ω	φ	λ	δ	ι	*Π*	Declination
01 May 2007	329.38°W	25.5°S	229.24°Ls	05.28"	34.5°	-21.0°	-05°44'
02 May 2007	319.44°W	25.5°S	229.87°Ls	05.29"	34.7°	-21.5°	-05°26'
03 May 2007	309.49°W	25.5°S	230.49°Ls	05.31"	34.8°	-21.9°	-05°08'
04 May 2007	299.55°W	25.5°S	231.12°Ls	05.32"	34.9°	-22.3°	-04°50'
05 May 2007	289.61°W	25.5°S	231.75°Ls	05.34"	35.0°	-22.7°	-04°32'
06 May 2007	279.67°W	25.5°S	232.38°Ls	05.35"	35.2°	-23.2°	-04°15'

Date (00:00GMT)			ω	φ	λ	δ	ι	Π	Declination
07	May	2007	269.73°W	25.5°S	233.00°Ls	05.37"	35.3°	-23.6°	-03°57'
08	May	2007	259.79°W	25.5°S	233.63°Ls	05.38"	35.4°	-24.0°	-03°39'
09	May	2007	249.85°W	25.5°S	234.26°Ls	05.40"	35.6°	-24.4°	-03°21'
10	May	2007	239.91°W	25.5°S	234.90°Ls	05.41"	35.7°	-24.8°	-03°03'
11	May	2007	229.97°W	25.4°S	235.53°Ls	05.43"	35.9°	-25.2°	-02°45'
12	May	2007	220.03°W	25.4°S	236.16°Ls	05.44"	36.0°	-25.6°	-02°27'
13	May	2007	210.09°W	25.4°S	236.79°Ls	05.46"	36.1°	-25.9°	-02°09'
14	May	2007	200.16°W	25.3°S	237.42°Ls	05.48"	36.3°	-26.3°	-01°51'
15	May	2007	190.22°W	25.3°S	238.05°Ls	05.49"	36.4°	-26.7°	-01°33'
16	May	2007	180.29°W	25.3°S	238.68°Ls	05.51"	36.5°	-27.1°	-01°15'
17	May	2007	170.36°W	25.2°S	239.31°Ls	05.53"	36.6°	-27.4°	-00°57'
18	May	2007	160.42°W	25.1°S	239.95°Ls	05.54"	36.8°	-27.8°	-00°39'
19	May	2007	150.50°W	25.1°S	240.58°Ls	05.56"	36.9°	-28.1°	-00°21'
20	May	2007	140.57°W	25.0°S	241.21°Ls	05.57"	37.0°	-28.5°	-00°03'
21	May	2007	130.64°W	24.9°S	241.85°Ls	05.59"	37.1°	-28.8°	+00°14'
22	May	2007	120.72°W	24.8°S	242.48°Ls	05.61"	37.3°	-29.2°	+00°32'
23	May	2007	110.79°W	24.8°S	243.12°Ls	05.62"	37.4°	-29.5°	+00°50'
24	May	2007	100.87°W	24.7°S	243.75°Ls	05.64"	37.5°	-29.9°	+01°08'
25	May	2007	090.95°W	24.6°S	244.38°Ls	05.66"	37.6°	-30.2°	+01°26'
26	May	2007	081.03°W	24.5°S	245.02°Ls	05.67"	37.7°	-30.5°	+01°44'
27	May	2007	071.12°W	24.4°S	245.65°Ls	05.69"	37.8°	-30.8°	+02°01'
28	May	2007	061.21°W	24.3°S	246.28°Ls	05.70"	37.9°	-31.1°	+02°19'
29	May	2007	051.29°W	24.2°S	246.92°Ls	05.71"	38.0°	-31.4°	+02°37'
30	May	2007	041.39°W	24.1°S	247.55°Ls	05.72"	38.2°	-31.7°	+02°54'
31	May	2007	031.48°W	24.0°S	248.19°Ls	05.73"	38.3°	-32.0°	+03°12'
01	June	2007	021.57°W	23.8°S	248.82°Ls	05.74"	38.4°	-32.3°	+03°29'
02	June	2007	011.67°W	23.7°S	249.46°Ls	05.77"	38.5°	-32.5°	+03°47'
03	June	2007	001.77°W	23.6°S	250.09°Ls	05.79"	38.6°	-32.8°	+04°04'
04	June	2007	351.87°W	23.5°S	250.73°Ls	05.82"	38.7°	-33.1°	+04°21'
05	June	2007	341.98°W	23.3°S	251.36°Ls	05.84"	38.8°	-33.4°	+04°39'
06	June	2007	332.08°W	23.2°S	252.00°Ls	05.86"	38.9°	-33.6°	+04°56'
07	June	2007	322.19°W	23.0°S	252.63°Ls	05.88"	39.1°	-33.8°	+05°13'
08	June	2007	312.31°W	22.9°S	253.27°Ls	05.89"	39.2°	-34.1°	+05°30'
09	June	2007	302.42°W	22.7°S	253.90°Ls	05.91"	39.3°	-34.3°	+05°47'
10	June	2007	292.54°W	22.6°S	254.54°Ls	05.93"	39.4°	-34.5°	+06°04'
11	June	2007	282.66°W	22.4°S	255.17°Ls	05.95"	39.5°	-34.8°	+06°21'
12	June	2007	272.78°W	22.2°S	255.81°Ls	05.96"	39.6°	-35.0°	+06°38'
13	June	2007	262.91°W	22.1°S	256.44°Ls	05.98"	39.7°	-35.2°	+06°54'
14	June	2007	253.04°W	21.9°S	257.07°Ls	06.00"	39.8°	-35.4°	+07°11'
15	June	2007	243.17°W	21.7°S	257.71°Ls	06.02"	40.0°	-35.6°	+07°27'
16	June	2007	233.31°W	21.6°S	258.34°Ls	06.04"	40.1°	-35.8°	+07°44'
17	June	2007	223.44°W	21.4°S	258.97°Ls	06.06"	40.2°	-36.0°	+08°00'
18	June	2007	213.58°W	21.2°S	259.61°Ls	06.08"	40.3°	-36.1°	+08°16'
19	June	2007	203.73°W	21.0°S	260.24°Ls	06.10"	40.4°	-36.3°	+08°32'
20	June	2007	193.88°W	20.8°S	260.88°Ls	06.11"	40.4°	-36.5°	+08°48'
21	June	2007	184.03°W	20.6°S	261.51°Ls	06.13"	40.5°	-36.6°	+09°04'
22	June	2007	174.18°W	20.4°S	262.14°Ls	06.15"	40.6°	-36.8°	+09°20'
23	June	2007	164.33°W	20.2°S	262.78°Ls	06.17"	40.7°	-36.9°	+09°36'
24	June	2007	154.49°W	20.0°S	263.41°Ls	06.19"	40.8°	-37.1°	+09°51'
25	June	2007	144.66°W	19.8°S	264.04°Ls	06.21"	40.9°	-37.2°	+10°07'
26	June	2007	134.82°W	19.6°S	264.67°Ls	06.23"	41.0°	-37.3°	+10°22'
27	June	2007	124.99°W	19.4°S	265.30°Ls	06.25"	41.1°	-37.4°	+10°38'
28	June	2007	115.16°W	19.2°S	265.93°Ls	06.27"	41.1°	-37.5°	+10°53'
29	June	2007	105.34°W	19.0°S	266.56°Ls	06.29"	41.2°	-37.6°	+11°08'
30	June	2007	095.52°W	18.8°S	267.19°Ls	06.31"	41.3°	-37.7°	+11°23'
01	July	2007	085.70°W	18.5°S	267.82°Ls	06.33"	41.4°	-37.8°	+11°37'
02	July	2007	075.88°W	18.3°S	268.45°Ls	06.35"	41.5°	-37.9°	+11°52'
03	July	2007	066.07°W	18.1°S	269.08°Ls	06.37"	41.6°	-38.0°	+12°07'

便　り
Letters to the Editor

●・・・・・・・***Date: Sun, 25 Mar 2007 23:31:49 +0100***
Subject: The sun this morning UK

Hi Guys, A couple of moments were siezed this morning. Seeing was quite good, allowing some splendid on screen views of the solar surface, which had this area of outstanding natural beauty. This prom was the tallest on there today (in my filter anyway). Best wishes

○・・・・・・・***Date: Sun, 1 Apr 2007 00:19:06 +0100***
Subject: Bright solar phenomenon

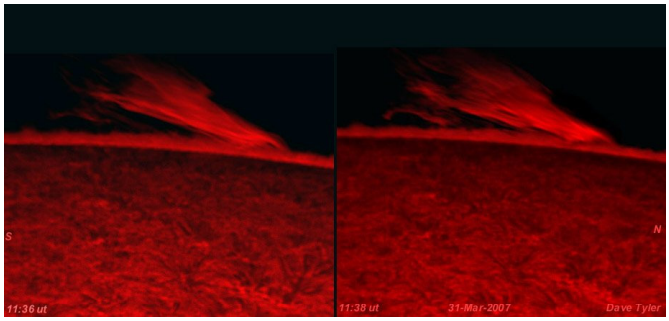
Hi Guys. This erupted from the sun's "on" limb this morning. It all began earlier as a fast changing active loop, of which I have frames for a short animation, it died down, and it left it. Returning a little later I grabbed this through cloud gaps. The eruption is brigher than the chromosphere, which is part of the same exposure. The solar disc was added from a second exposure. Not knowing a great deal about the sun I would appreciate knowing what it is ? 180" fl on Lu075M CCD.

○・・・・・・・***Date: Sun, 1 Apr 2007 01:16:06 +0100***
Subject: solar phenmenon 2

Hi guys, following up the earlier image. I took this one 18mins earlier on half the focal length. The phenomena was as bright as the solar disc, this is one exposure. There is a dot in it, that is even brighter. The chromosphere is missing, underexposed, in this shot.

○・・・・・・・***Date: Mon, 2 Apr 2007 13:22:25 +0100***
Subject: Sun 31-March

Hi Guys, The animation (inverted view) is the build up to the outburst shown on the coloured images (turned 90deg clockwise from naked eye view). The animation covers 4 mins and there are two mins between the coloured images, taken an hour and a half later. It looks like I missed the best bit! The the increasing density of the wispy length on the last frame, looks like it may be the major building component of the final images. Until I build an animation, I dont really know what ive missed. ・・・・Best wishes



○・・・・・・・***Date: Tue, 3 Apr 2007 13:06:42 +0100***
Subject: 15 March Saturn

Hi guys, The data is on the images C14 @ f40 Yellow filter? Trutek dichroic. Its good in conditions of poor transparency, as it can still take a viable image. In normal conditions, it allows a far lower gain setting to be used. Best wishes

○・・・・・・・***Date: Tue, 3 Apr 2007 23:28:15 +0100***
Subject: 2 Apr solar filaments

Hi Guys, There was quite an impressive filament on the sun yesterday, along with some awesome clouds. Here it is in two magnifications. 180 inches x 6 inch aperture and 90 inch x 3 inch aperture. There was another filament a little further south , but it had a more "normal" background. South is up.

○・・・・・・・***Date: Wed, 4 Apr 2007 00:22:11 +0100***
Subject: 2 April Solar Proms

Hi Guys, I imaged one prom on the 2nd,,,,, twice, 72Mins apart. 180" efl.. Lu07M. ・・・

○・・・・・・・***Date: Thu, 5 Apr 2007 23:26:40 +0100***
Subject: 5-April Solar prominence

Hi Guys We had a magnificent solar prominence today , Here it is in two guises, one as seen in Hα colour. and the other in the subtle tones of greys. Best wishes

○・・・・・・・***Date: Fri, 6 Apr 2007 00:57:19 +0100***
Subject: 5th April 2007 remains of filament

Hi guys, Here is what remains of yesterday's large filament, shown (north up). Although the southern end has disappeared, there are still , what I take to be field lines, affecting the clouds? Best wishes

○・・・・・・・***Date: Sun, 8 Apr 2007 15:24:53 +0100***
Subject: 7 April Saturn

Hi Guys, We had another night of reasonable seeing for Saturn, no spots were seen. Best wishes

○・・・・・・・***Date: Sun, 8 Apr 2007 16:35:45 +0100***
Subject: 6-Apr Saturn images

Hi Guys, Here are 3 images from the 6th the greEn and red filtered images, faintly show a diffuse spot in the SEZ. Best wishes

○・・・・・・・***Date: Wed, 11 Apr 2007 20:44:25 +0100***
Subject: Another prom from the 8th

Hi Guys, Here is another and very elegant prom from the 8th. Best wishes

○・・・・・・・***Date: Thu, 12 Apr 2007 14:25:32 +0100***
Subject: Saturn 8 Apr 2007

Hi Guys, This is Saturn from the 8th, taken in fair seeing No spots ect noted on the component images. You may find it interesting to compre it with an images from the 6th of March. Very little change in ring tilt, but a large increase in the size of the shadow on rings.

The visibility through the Cassini division has varied as the globe has changed phase slightly .

○・・・・・・・***Date: Fri, 13 Apr 2007 01:59:18 +0100***
Subject: Sat on 11th

Hi guys, apologies if the images are a bit samey, but if its clear one must have a go just in case, and its all practice. Seeing was generally poor and dim but with enough good frames for an image. The blue only just registered. Ring A looks like glass across the globe.

We are having warm very hazy sun ruinous for Hα solar imaging, but some good moments in the seeing for Saturn. This evening (12th) was very steady but very dim indeed, most frustrating. At least the spot was "on".

○・・・・・・・***Date: Fri, 13 Apr 2007 20:59:45 +0100***
Subject: 12th Apr Saturn

Hi Guys, The very dim but detailed seeing carried a lot of noise, but many frames made light work. I guess it was only 60% of normal brightness. The hyperdim blue channel was processed by instinct until it was ready to be levelled up. The small spot was evident. C14 *f*40. Filters Trutek type 2 G and B, and type 1 Red.

○・・・・・・・***Date: Fri, 13 Apr 2007 23:13:47 +0100***
Subject: bst error on 12th apr Sat images

Hi Guys, the 12ths Saturn images were sent out on BST and not ut, so 1 hour needs knocking off the times shown. My humble apologies. chastened and bowed

○・・・・・・・***Date: Mon, 16 Apr 2007 10:17:25 +0100***
Subject: Saturn 14April 2007

Hi Guys, We had some good seeing on the 14, but with very poor transparency. C14 @ F40 Trutek type 2 Gr type 2 Bl, type 1 Red, type 1 Yellow. Lumenera Lu 075.

○・・・・・・・***Date: Mon, 16 Apr 2007 13:47:27 +0100***
Subject: solar images 14&15 Apr

Hi Guys, Here are two images of a quite complex prominence , seeing was better captured on the 15th.

The solar "surface" also has some fascinating stuff going on. 6" *f*15 achromat 2" Baader ir uv rejection filter on 2× powermate for *f*30, Daystar .6A ATM Hα Filter, Lu 075 CCD camera.

○・・・・・・・***Date: Mon, 16 Apr 2007 22:45:04 +0100***
Subject: saturn from the15th Apr

Hi Guys, This Sat in poor seeing from the 15th and pretty well max ring tilt for the year at about 15.4deg.. By Christmas it will be only 6.6. The poor red is due to me accidently overwriting my red data, and this red is a stack all 800 frame long,abandoned avi, attempted in very poor seeing. Good job I kept it. Best wishes

○・・・・・・・***Date: Tue, 17 Apr 2007 18:15:14 +0100***
Subject: Sat 16th Apr 2007

Hi Guys, Terribly dim conditions last night., but quite detailed seeing. Blue was almost invisible, but it still managed to contribute to the rgb. There are some faint spots in the SEB in the green yellow and white monos.

○・・・・・・・***Date: Wed, 18 Apr 2007 18:20:07 +0100***
Subject: Sat 17th Apr

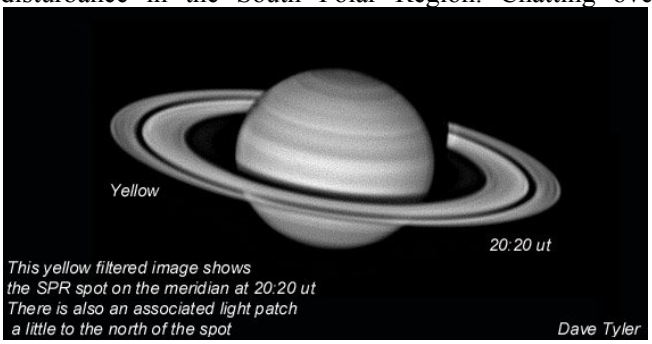
Hi Guys, We had a short burst of good seeing last nights, enabling one to revel again in Saturns beauty. No spots were seen. We have had a regular seeing pattern over the past few clear evenings. Good seeing in a light sky at dusk, this deteriorates as it gets fully dark, and settles again just when you thought it was safe to go back in. This good seeing has held for about half an hour, when it has then quite dissapointingly quickly, turned to jelly. ・・・・

○・・・・・・・***Date: Wed, 18 Apr 2007 19:09:10 +0100***
Subject: PROM ON THE 18TH

Hi Guys a clear blue sky at last thick high pressure haze has been a problem. Not a lot going on up there just now at .6A Hα and a 6 inch scope at *f*30, and at sea level. This twisted arm Prominence was all that was within my grasp. Best wishes

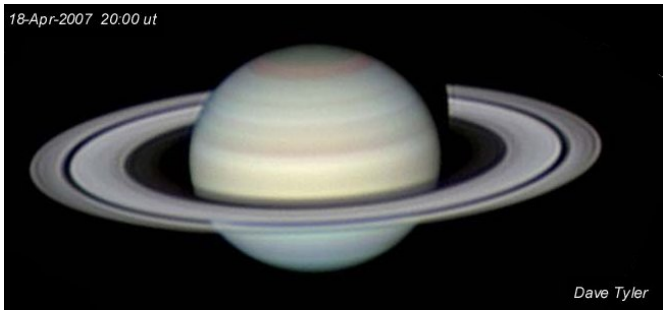
○・・・・・・・***Date: Thu, 19 Apr 2007 18:43:41 +0100***
Subject: Saturn SPR SPOT 18th April

Hi Guys, Not another Saturn,, ok,,, but this one has out-takes. We had some excellent seeing for a short while around dusk again, along with good transparency. The on screen image was quite something. Damian is about a mile away and we both recorded this small spot / disturbance in the South Polar Region. Chatting over



Skype in the wee small hour during processing, Damian first noticed the spot, it also appeared on my image as it was sharpened. I'm still enthralled by the transparency of ring A across the globe the small glow from the surface through the ring on the sunlight edge. The visibilty of the globe through Cassini division. If you increase the brightness of the image you will also see ring C.

Best wishes



○・・・・・・・***Date: Sun, 22 Apr 2007 18:02:22 +0100***
Subject: Saturn 21st Apr

Good evening chaps. We had a slightly longer period of very good seeing last evening, enabling an almost decent blue. The final result was pleasing. No spots were imaged but the SPR region is shown quite well. Best wishes

○・・・・・・・***Date: Mon, 23 Apr 2007 12:18:14 +0100***
Subject: Solar images 21st Apr

Hi Guys, Here are two images of the same prominence, taken 13 mins apart, showing subtle changes on a massive scale in a short timespan. Hα seeing has been plagued here near Heathrow, by a thick haze and multistacked con trails. Best wishes

Dave TYLER (ﾃﾞｳﾞｨｯﾄﾞ・ﾀｲﾗｰ Bkh 英)
http://www.david-tyler.com/

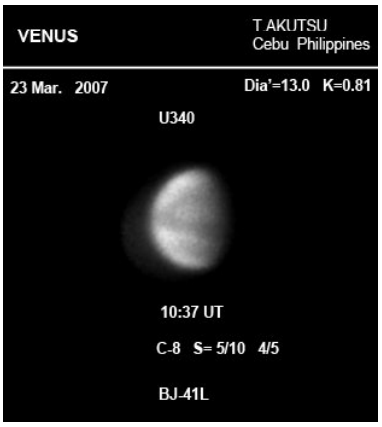
●・・・・・・・***Date: Mon, 26 Mar 2007 18:04:27 +0900***
Subject: 金星画像 V070323 V070325

こんばんわ, 金星UV画像です。

○・・・・・・・***Date: Wed, 28 Mar 2007 15:54:07 +0900***
Subject: 金星UV画像 V070327

こんにちは、来週の4月3日、日本に帰国します。今回の滞在も短く、4月11日にはセブに戻る予定です。日本の桜を楽しみにしています。

○・・・・・・・***Date: Wed, 28 Mar 2007 17:54:00 +0900***



Subject: RE:金星UV画像 V070327

返事が遅れていますが、いつもありがとうございます。金星画像はParker, McKim, Peachの三氏には今までも送っていましたが、他の人にも送りましょう。来週は日本ですが、楽しみにしています。温泉に行くつもりです。先日の地震の影響はどうでしたか？ニュースでは穴水町も被害があったそうですね。

○・・・・・・・***Date: Thu, 29 Mar 2007 17:05:19 +0900***
Subject: 金星UV画像 V070328

こんにちは、昨日の金星画像です。模様はないようです。夕方のホテルの西日があたったのテラスには、暑い熱気が収まらず全く、不利な状態です。

○・・・・・・・***Date: Fri, 30 Mar 2007 13:32:35 +0900***
Subject: 帰国します

こんにちは、来週4月3日、帰国します。1月にセブに戻ってからアッという間に4月を迎えます。最近、時の経つのが滅法早く感じるようになりました。セブでは今が年間で一番暑い季節をなり、外はピーカンの常夏の青空となっています。流石に日差しが強く、日中外へ出かける時は帽子とサングラスが必要です。セブでの仕事はやっと軌道に乗ってきました。外国での仕事は国内では体験出来ないことの貴重な経験ですが、勝手が違う人種をフォローするのは辛いところがあります。普段の生活は国内よりは窮屈なところはありますが、グローバルなものの見方が多少出来るようになって来たのが特典ですかね。

本日外注のシャツを届けてくれた女性の車がとってもカッコ良く見え、思わず撮ってみました。フォルクスワーゲンのスーパーマンロゴはこれ一台でしょうね。流石、フィリピンです。

○・・・・・・・***Date: Fri, 30 Mar 2007 15:16:31 +0900***
Subject: 金星撮像について

メールの海外向けフォローありがとうございます。さて、ヨーロッパとの時間差ですが、夕方の撮像を遅らせることは可能です。11ｈGMTぐらいまでは撮れますが、低空でのでのシンチレーションが多くなり、良像は期待できません。今の状況がきびしい環境にあり、ヨーロッパの像からは見劣りしますが、設備アップが出来ない現状では仕方ありません。しかしながら今のBJ-41Lでは機材的にきびしいので新しいカメラを模索中です。Chris GO氏から新しいカメラの情報があり、それが発売されるまで待っております。今年の火星に間に合うと思っております。昨夜の画像を後で送ります。

○・・・・・・・***Date: Fri, 30 Mar 2007 15:37:06 +0900***
Subject: 金星UV画像 V070329

こんにちは、金星画像とC8の写真です。

○・・・・・・・***Date: Fri, 6 Apr 2007 22:27:40 +0900 (JST)***
Subject: 日本にいます

こんばんわ、日本に3日の夜、戻ってきました。思いの他、寒いのですが、それでも桜が見えて、いいですね。天気は悪く、夜に星が見られず、残念です。来週の11日、セブに戻ります。つかの間の日本をもう少し、楽しみたいと思います。

○・・・・・・・***Date: Mon, 9 Apr 2007 00:01:59 +0900***
Subject: Re: オーイ阿久津さん

こんばんわ、CMO#329ありがとうございます。我が家には4月7日に配達されました。

○・・・・・・・***Date: Fri, 20 Apr 2007 17:22:05 +0900***
Subject: 暑いセブから

こんにちは、日本では天気が不安定で暖かったり、寒かったりだそうですが、セブでは真夏の暑い日ざしが続き、ホンと暑いですね。夜の星のほうは仕事関連の雑用に取られ、来月までお預けになりそうです。昨夜ホテルから見える金星、新月の夜景がきれいで、撮ってみました。Waterfront Hotelのネオンサインは一寸、きつい感じですが、雰囲気アップにはいいかも！ ではまた

阿久津 富夫(Tomio AKUTSU セブThe Philippines)

●・・・・・・・***Date: Wed, 28 Mar 2007 01:06:48 EDT***
Subject: Venus: March 28, 2007

Hi all - Here's my latest image of Venus in UV light on March 28th at 0:25 UT.
http://hometown.aol.com/frankj12/venusindex.html
More later...

○・・・・・・・***Date: Sun, 1 Apr 2007 02:42:22 EDT***
Subject: Venus: March 31, 2007

Hi all: I have posted my latest images of Venus in UV light March 31st at 22:45UT.
The seeing was OK with some fine moments.
http://hometown.aol.com/frankj12/venusindex.html

○・・・・・・・***Date: Wed, 4 Apr 2007 00:35:01 EDT***
Subject: Asteroid 2006 VV 2

Hi all - If you remember last week, I e-mailed if anyone would be interested to observe this flyby asteroid 2006 VV2. Well, I had a chance Friday nite to observe it and took a couple of images. It was pretty neat to watch this asteroid move quite rapidly across the star field.

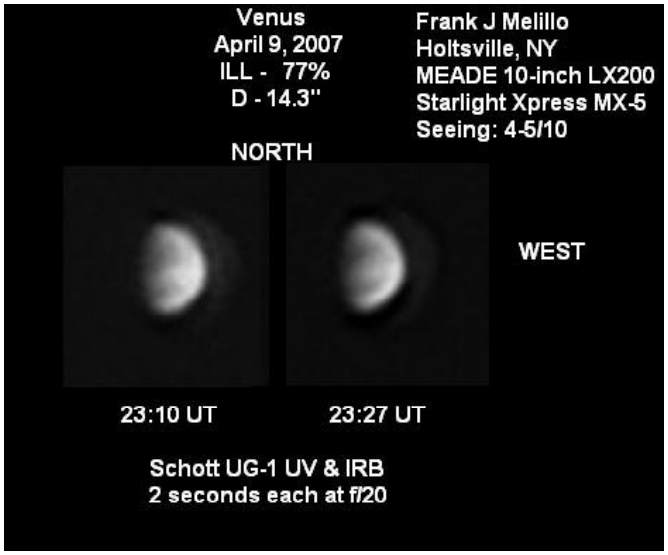
I had a second thought of doing photoelectric photometry but I wasn't prepare for it. Besides, there was some high clouds around. Also, I was planning to take some spectra and again I wasn't prepare for this. It was just too quick and the moon was just too close to the asteroid for any serious work.

At least, the images came out pretty decently. See here:
http://hometown.aol.com/frankj12/funstuffindex.html

○・・・・・・・***Date: Thu, 12 Apr 2007 01:01:32 EDT***
Subject: Venus: April 9 & 10, 2007

Dear all - Here are my latest images of Venus on April 9th and 10th, 2007. The seeing was so-so but most of the UV details are visible. It would be nice to compare with some of the images that taken by others around the same

time.



○・・・・・・・***Date: Sat, 14 Apr 2007 14:08:09 EDT***
Subject: Re: Venus, 9th april 2007

Paolo and Christophe - Great images! Yes, the best way is to do simultaneous observation! This is the best evening apparition of Venus to capture the most UV details. Only from gibbous to half. But unfortunately, the crescent phase won't be as favorable when some of us try to image Venus' dark side which will early August. The ecliptic will be quite shallow.

The morning apparition, Yes! The crescent phase in September before sunrise will be favorable for imaging the dark side and more of the UV details at the end of this year while the ecliptic is still steep..

○・・・・・・・***Date: Tue, 17 Apr 2007 14:34:14 -0400***
Subject: Re: Venus from 15.4.07 and 16.4.07

Great job! I saw your Venus website and why don't you make a short animation? We can actually see the features rotating and to see a four-day rotation period!

■・・・・・・・***Date: Tue, 17 Apr 2007 18:04:43 +0200***
Subject: Venus from 15.4.07 and 16.4.07

Hi all, the last days we had fantasic Transmission, but only average Seeing. All my Venus pictures you will find at:
http://www.sternwarte-zollern-alb.de/mitarbeiterseiten/kowollik/venus/index.htm
best wishes Silvia KOWOLLIK

○・・・・・・・***Date: Fri, 20 Apr 2007 00:25:49 -0400***
Subject: Re: 6-day rotation of venus

Silvia - Good job of showing the animation. Could you put down the number for each frame? So we know when is the first and the last one. It seems like it is rotating from the limb to the terminator.

Venus' cloud structures change very rapidly in 24 hrs. It would have rotated 1/4 of its way around. With that time period, sometimes it is hard to follow such a fast movement. I find it easier to see the difference about 5- 6 hrs apart. Because, most of the cloud structures don't change their shape that quickly. So, you can follow them easily across the disk.

Be aware that some cloud structures can change significantly after one full rotation later. They could be unrecognizable and whether if they are the same features or not. Keep up with your good work and we should see more of this!

○・・・・・・・***Date: Sun, 22 Apr 2007 23:26:55 EDT***
Subject: Venus: April 21th 2007

Hi all - Here's my so-so latest image of Venus Apr. 21st at 23:19 UT at:
http://hometown.aol.com/frankj12/venusindex.html

Also, you can see a short animation by Antonello Medugno and myself on March 31st. Both of our images are 5 hrs. apart.

Frank MELILLO (フランク・メリッロ Holtsville NY 美)
ALPO Mercury Coordinator

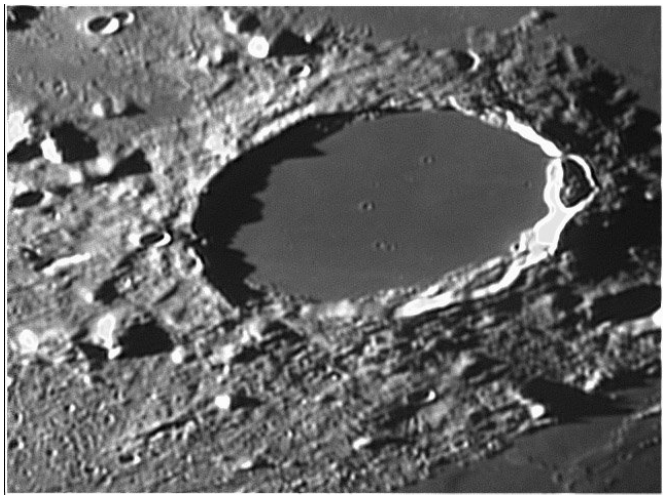
●・・・・・・・***Date: Wed, 28 Mar 2007 01:54:03 +0100***
Subject: Saturn 2007 March 26

Fair seeing this night. The image is not quite as good as my best, but I am quite pleased with it as it shows the Encke division clearly (suggesting Encke does vary a lot in intrinsic visibility), and the transparency of the outer ring. L is in this case a R-G average.

○・・・・・・・***Date: Mon, 9 Apr 2007 23:23:37 +0100***
Subject: Saturn 2007 March 27

Sorry to be slightly behind with my Saturn processing, it is much worse with Venus. I have to finish this book (see below). Seeing, as Martin Lewis commented for this night already, was quite good for these parts. I am quite pleased with the performance of this telescope now.

○・・・・・・・***Date: Wed, 11 Apr 2007 22:50:58 +0100***
Subject: The Moon, 2007 March 27



On the 27th we had a very high Moon, and fair seeing, for some high-res imaging. I took two of the classic webcam objects, Plato and Vallis Alpes, and the lesser-known Lassell, with its group of small craters, on the Mare Nubium (the bright Lassell D at the centre of the image). South is top. These were taken with a mono Toucam, Baader R-IR filter, and 254mm Dall-Kirkham-Dall Cassegrain at *f*31 on an Astro-Physics 900 mount.

○・・・・・・・***Date: Fri, 13 Apr 2007 01:48:25 +0100***
Subject: Re: Saturn 07Apr11 from Tucson

> I'm virtually color blind in the dark. -Rik

I think that goes for all humans! The trouble with comparing with a telescopic view is that it does depend what the telescope is. I have noticed that the blues and greens on Saturn's globe only become apparent visually using apertures above 10 inches, and really apparent from 12 inches up. But other's perceptions will be different.

Also, I have found that using a binoviewer brings out these colours more. With smaller telescopes, and one eye, everything on Saturn looks yellow to me, including both rings. With large telescopes, ring B looks parchment yellow to me and ring A a more greyish or silvery yellow. The colours produced by a colour Toucam on auto-white balance when saturated make the rings more bluish or greyish than I see them (see attached image of the occultation), but this is the balance that most imagers doing tri- colour imaging seem to aim for.

The image that Rik posted, to me, is not too far out, but it is on the green side, and this green is more pronounced towards the N, where the A ring going in front of the planet becomes green , which I don't think it should - i.e. I don't think this is just a "colour balance" issue with this image, there is another fault with it as well.

○ · · · · · · · ***Date: Sat, 14 Apr 2007 02:30:28 +0100***
Subject: Saturn 2007 April 07

Still somewhat behind. Poor seeing and very low transparency on this occasion, as on many nights recently. Actually makes the whole planet look orange or pink visually. Seeing has improved since, while transparency has remained low (better conditions for Venus than for Saturn).

○ · · · · · · · ***Date: Sun, 22 Apr 2007 01:07:20 +0100***
Subject: Jupiter 2007 April 18

Among the other nutty things I have been doing recently has been trying to image Jupiter at a culminating altitude of 17 deg. from here. On the 18th we had unusually good seeing, and these are the results - quite worth-while, I think - but they took a lot of persistence.

Visible is BA, past the CM, and one of the STDs about level with it.

David ARDITTI (ﾃﾞｳﾞｨｯﾄﾞ･ｱｰﾃﾞｨﾁ Edgware ME 英)
http://www.davidarditti.co.uk/observatory.html

● · · · · · · · ***Date: Thu, 29 Mar 2007 19:59:17 +0200***
Subject: Venus, 26th march 2007

Hi all,

http://www.astrosurf.com/pellier/V070326-CPE

Good seeing on the 26th and again some interesting stuff. This set does not confirm the presence of proeminent details in green light - or red (but that of the 27th will !). However, it's nice to note how visible in blue light are the UV markings. I have then intended a true color RGB image, approaching the human vision (a visual image with details !). Logically the dark markings appear with a pale yellow hue. This adds credibility to some of the visual experiences of the past (I must also recall that on a last year photometric test, this B filter was found poorly transparent in near UV). But on the other hand, the images are much more contrasted than the human vision...Note again some banding in near-IR. Best

PS For Masatsugu: I will answer to your long e-mail on the next days - I'm out this w-e.

○ · · · · · · · ***Date: Thu, 29 Mar 2007 22:29:04 +0200***
Subject: Re: Venus, 26th march 2007

Hi David, I'm still not sure that the IR details have something to do with UV. On many occasions, they simply didn't match at all. Although it could be in some way, but we don't have a collection of IR Venus images good enough (so far...) to judge. About the cloud altitudes, I have at least this reference from Galileo :

http://www2.jpl.nasa.gov/galileo/sepo/cruise/venus/violet.html

Where it's written that IR shows details near the bottom of the cloud deck, and UV near the top. Details look to be linked however here as you think.

David Arditti *a écrit :*

■ · · · · · · · ***Date: Thu, 29 Mar 2007 19:35:34 +0100***
Subject: Re: Venus, 26th march 2007

Very clear set of images. It's interesting how consistent the markings appear from one end of the observed spectrum to the other. There was some discussion on this subject at the BAA meeting yesterday, and on how the observed rotation rates relate to levels in Venus's atmosphere. The wavelength-consistency in the best images (apart from the polar hoods, which are always much brighter in UV) suggests to me that the different filters are not particularly showing different levels of the atmosphere, which would have different rotation rates and therefore would not normally correspond (or not correspond negatively, as is also sometimes noted). Also this shows (which we knew) that no filter we have "sees" to the surface. **David ARDITTI**

○ · · · · · · · ***Date: Fri, 30 Mar 2007 20:02:16 +0200***
Subject: Venus, march 27th 2007

The next evening was with very good seeing, but images taken through clouds, I therefore had to forget about UV unfortunately.

http://www.astrosurf.com/pellier/V070327-CPE

Again some details are imaged in G, but also in R. They look to correspond well with the UV markings as detected in blue light. Just a warning, the IR image display an artefact as a dark ring next to the bright limb.

○ · · · · · · · ***Date: Sun, 01 Apr 2007 21:09:02 +0200***
Subject: Re: Rencontre in 2009

Dear Masatsugu, First sorry I had to have you waiting for my answer. I'm just back home after my week-end and I have then taken the time to read in depth your long message..

I must say that the perspective of meeting you, Bill or anyone, is really attracting. I'm going to try to warm up people on the SAF... perhaps, yes, as a part of the International year of astronomy ? Those people are professionals, at least I have attended to a few conferences by Jean Eudes Arlot about Venus and Uranus.

The work of Kazunori Ogohara as you describe it is interesting and coherent with the images of 2001, although the TES instrument of MGS looks to show a partial and limited overflow of dust from Hellas to Hesperia, but, the real original dust core has exploded in Hesperia, not Hellas. A limited amount of Hellas flowing dust (not dust storm) looks to a triggered this, to me. On a final note I again, wish you a good health recovering...

With best wishes

○ · · · · · · · ***Date: Sun, 01 Apr 2007 21:27:07 +0200***
Subject: [Fwd: Rencontre in 2009]

Bonjour à tous, Je vous forwarde un e-mail de Masatsugu Minami, Directeur de la section Mars de l'OAA, qui nous demande s'il serait possible de tenir un meeting ou une rencontre en septembre 2009 à l'occasion du centenaire de la fabuleuse nuit du 20 septembre 1909

qu'a connu Antoniadi sur Mars, à la grande lunette de Meudon.

Il avance l'idée du cadre de *l'Année astronomique internationale*, dans la mesure où des manifestations sont prévues cette année-là - je n'ai pas de détails à ce sujet en ce qui me concerne.

Bill Sheehan pourrait également faire le déplacement à cette occasion.

Je vous soumets cette idée en espérant qu'elle vous plaira, ce sera une excellente occasion de rencontrer des observateurs de Mars reconnus et avec qui nous entretenons depuis longtemps des liens réels mais uniquement électroniques !

Amicalement,

■ · · · · · · · ***Date: Thu, 29 Mar 2007 05:27:02 +0900***
From: "Masatsugu MINAMI"
Subject: Rencontre in 2009

Cher ami, Christophe, I am sorry I have been late in fully replying. · · · ·

As to a possible rencontre in 2009, originally it started as a plan to have another Lowell conference in 2008 at the Lowell Observatory after the planet is away. However Bill Sheehan noticed the fact that the International Year of Astronomy (IYA) is going to be held in 2009, and suggested 2009 may be more appropriate since 2009 corresponds to the centenary of the great opposition in 1909 and the meeting may be included as a sub-plan of the IYA:

http://www.iau.org/iau0606_IYA.408.0.html

There is another problem in holding a meeting at the Lowell Observatory: We should say the Lowell Observatory itself nowadays has completely lost any interest in Mars and Percival Lowell himself, and so they may not be helpful. Furthermore we should say nowadays those Mars observers who are interested in Lowell's view points on Mars are few: In our country there works the Lowell Society of Japan, but the members are mostly those interested in Percival who visited Japan and wrote something about Japan before he became a Mars observer.

On the other hand 2009 vividly reminds us of a great presence of E M Antoniadi! In his book, *La planète Mar*s, Antoniadi wrote "*Les plus belles images que j'ai eues sur Mars avec cet instrument (la lunette de 0m83) ont été celles du 20 septembre 1909, qui restèrent parfaites pendant plus de deux heures"* (oh! not half an hour! p7), and this instant must have implied the beginning of the modern observation of Mars. A letter of E E Barnard to Antoniadi in November 1909 also suggests a heartened revival of Barnard. So there arises an idea to have a rencontre at Meudon. Don't you think it's great if the present day Mars observers or those who are interested in Mars meet together at Meudon on this occasion? I don't think there are many who could come from the far orient, but Paris is the centre of the EU countries to call many European observers, and 2009 is just after the best 2007/2008 season for the Europeans, and so topics must be a lot.

A possible problem then is this; Who is going to bell the cat's neck? It may be easy to have an official committee, but the executive committee is the problem. As far as I think, there needs at least one young secretary and at most it is necessary we can get a cooperation or organisation of Daniel Crussaire, Nicolas Biver and you Christophe Pellier. The Official Committee may be headed by Audouin Dollfus. How do you think of this idea? · · · ·

If possible, our rencontre may have at least three sessions: 1) Educational session of the solar system for public, 2) Historical research session and 3) Actual observational session. As to the history Bill Sheehan may lead the session especially on Antoniadi and Barnard, and since 1709 and 1809 are both the opposition years he may know something interesting in addition to Galileo Galilei in 1609, and for 3) a lot of European observers will give talks about their observations in the 2007/2008 or prior apparitions. As an excursion, as Bill suggests, it is interesting to make a trip to Juvisy.

At least I hope you will consult Daniel Crussaire, Nicolas Biver and others. I know if they are reluctant and if you fail in persuading them, the plan may be dead rocked. Note that the rencontre can be make just small-sized (or large if all hope), and there is plenty of time left still.

I now turn to quite a different topic. Just I report seeing Kazunori Ogohara in Kyoto this January. This person is the student who proved by the use of a General Circulation Model that any dust germs inside Hellas could not overflow and remain inside while dust disturbances which occurred at the outside of Hellas can be planet encircling. · · · · · · · ·

I have been free, thanks to the medication, from the irregular pulsation of my atrium (which I first found on the occasion of the 2003 apparition) for more than one year, but suddenly I suffered on 26 March from a heavy one which lasted for three hours. So at present I try to have a good rest. But I hastened to write about an IYA plan to you, and so I am afraid I might have been in short in communicating my intention. If so I beg your pardon.

I shall close for now but I hope you keep well, and good observations. Bien amicalement. Masatsugu

◯ · · · · · · · ***Date: Tue, 03 Apr 2007 22:35:54 +0200***
Subject: Saturn 26 march 2007

Hi all, Some images under improved conditions but still not very good.

http://www.astrosurf.com/pellier/S070326-CPE

◯ · · · · · · · ***Date: Wed, 04 Apr 2007 21:07:20 +0200***
Subject: Venus 02/04

Hi guys, Very good seeing and transparency ok for once.

http://www.astrosurf.com/pellier/V070402-CPE

I have introduced two new filters: the W47 and the IR70. The images span the whole spectra except that the IR1000 image was two noisy... Again, beware of the dark limb artefact on R/IR. Best wishes

◯ · · · · · · · ***Date: Wed, 04 Apr 2007 22:44:53 +0200***
Subject: Re: Venus 02/04

Hi Frank, I in fact agree with you! On my side I think that one of the advantage of my equipment is the Lumenera camera that delivers a much more stronger contrast than a B&W webcam, as well as a complete absence of gain artefacts. I was expecting a great improvement in image quality thanks to this and it just happened...

Frank J MELILLO *a écrit :*

> Wow! Great shots Christophe!
> You said once that Venus is starting to show very interesting
> details and it is very active in UV light .
> I think *we are* improving our techniques to see more UV details!

◯ · · · · · · · ***Date: Sat, 07 Apr 2007 13:19:52 +0200***
Subject: Saturn 27th march 2007

Hi all, Good seeing, the best I have had so far on Saturn this year, but unfortunately poor transparency. I had to explode the limit of time capturing for the B filter.

http://www.astrosurf.com/pellier/S070327-CPE

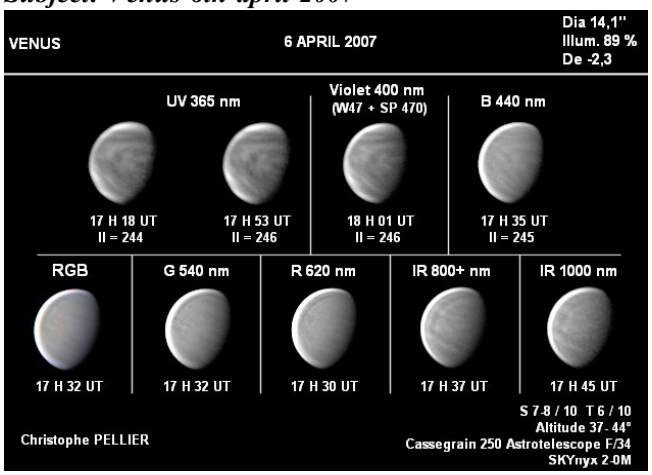
◯ · · · · · · · ***Date: Sun, 08 Apr 2007 02:02:30 +0200***
Subject: Jupiter 6th april 2007

Hi all, Here are my first images of the season. At least imaging at 19° above the horizon is "possible"... ;-)

http://www.astrosurf.com/pellier/J070406-CPE

I wonder if the STropD visible here has been expanding in longitude. Regards

◯ · · · · · · · ***Date: Sun, 08 Apr 2007 14:12:04 +0200***
Subject: Venus 6th april 2007



Hi all, Very good seeing on the 6th... The pattern of details is really *aesthetic* here I find !
http://www.astrosurf.com/pellier/V070406-CPE

◯ · · · · · · · ***Date: Tue, 10 Apr 2007 20:12:24 +0200***
Subject: Venus, 8th april 2007

Again good conditions on the 8th -Details are present on every images.... Does the Visible filter of Venus Express show anything ?
http://www.astrosurf.com/pellier/V070408-CPE

◯ · · · · · · · ***Date: Wed, 11 Apr 2007 20:24:58 +0200***
Subject: Jupiter, 9 april 2007

Good conditions for the altitude on the 9th ; If I could get that seeing often enough in 2007 and 2008, I think I would happy.
http://www.astrosurf.com/pellier/J070409-CPE
The *F*/24 focal lenght helps a lot here of course.

◯ · · · · · · · ***Date: Sat, 14 Apr 2007 12:23:16 +0200***
Subject: Venus, 9th april 2007

More images but seeing was less good that evening.
http://www.astrosurf.com/pellier/V070409-CPE

◯ · · · · · · · ***Date: Sat, 14 Apr 2007 13:04:01 +0200***
Subject: Re: Venus, 9th april 2007

Hi Paolo, yes ! But you know today, getting details in UV on Venus is really becoming banal... :-) I now feel more curious about visible wavelenghts ! Best

Paolo R. Lazzarotti *a écrit :*

> Hi Chris, This UV image is extremely close to mine grabbed on the same eve!
> http://www.lazzarotti-hires.com/images/inner/venus20070409_lazz.jp
> We can say we have both grabbed a genuine image then! ;-)

◯ · · · · · · · ***Date: Sat, 14 Apr 2007 13:18:56 +0200***
Subject: Re: Venus, 9th april 2007

It's true that we can still increase quite a lot the quality of the images. I'm above all waiting the morning apparition next autumn...

Paolo R. Lazzarotti *a écrit :*

> Nothing is banal, expecially if a very thin number of people is yet
> able to grab genuine details on Venus with no artifacts at all.
> I can see so many imagers still claiming unreal details on Venus...

◯ · · · · · · · ***Date: Sat, 14 Apr 2007 15:00:00 +0200***
Subject: Re: Venus, 9th april 2007

You must be right - Venus won't be as high next autumn. But seeing could be better... Good luck for your high altitude shots !

Paolo R. Lazzarotti *a écrit :*

> The next western elongation won't be as good as this one!
> I think the best results can be achieved by now on.
> I plan to image Venus at 1500 meters altitude where the UV
> atmospherical absorption is little and the transparency usually great.
> My first 2 attempts just came out from that altitude.

◯ · · · · · · · ***Date: Sat, 14 Apr 2007 16:06:02 +0200***
Subject: Jupiter 10th april 2007

Hi all, Relatively correct seeing on the 10th to show the NTB revival.
http://astrosurf.com/pellier/J070410-CPE
By the way another curious thing to me is the smooth and featureless aspect of the SEB in near IR. Like if underlying layers were "asleep" there...

◯ · · · · · · · ***Date: Sun, 15 Apr 2007 13:21:00 +0200***
Subject: Saturn 8th april 2007

Hi all, Here is finally my yearly UV image of Saturn, although it's not as good as I would have dreamt it.
http://www.astrosurf.com/pellier/S070408-CPE
Some of the raw frames were ruined by an open window in the roof of my residence...

◯ · · · · · · · ***Date: Sun, 15 Apr 2007 16:23:55 +0200***
Subject: Venus 14th april 2007

Hi guys, Yesterday's images. The UV details are so fun !
http://www.astrosurf.com/pellier/V070414-CPE

◯ · · · · · · · ***Date: Tue, 17 Apr 2007 20:16:08 +0200***
Subject: Jupiter 15th april 2007

Some images under rather poor conditions.
http://www.astrosurf.com/pellier/J070415-CPE

◯ · · · · · · · ***Date: Tue, 17 Apr 2007 22:57:10 +0200***
Subject: Venus april 15th 2007

Hi all, The poor transparency last sunday prevented me from using the UV filter - the sky background was almost as bright as the planet ! So I used the W47 instead. The filter does a good job.
http://www.astrosurf.com/pellier/V070415-CPE
I've taken an image through an IR-cut filter (L) matching the human vision. The image shows details, in coherence with RGB also. This is another element for the visual observations topic. That evening, a french visual observer, Frédéric Burgeot, has made a drawing through the W47 and with a 16" telescope, wich reveal very coherent details :
http://www.astrosurf.com/ubb/Forum15/HTML/000636.html
All of this is very interesting...

◯ · · · · · · · ***Date: Sat, 21 Apr 2007 16:14:02 +0200***
Subject: Saturn 9th april 2007

Hi all, Some long-wave images of Saturn.
http://www.astrosurf.com/pellier/S070409-CPE
Have a nice week-end.

◯ · · · · · · · ***Date: Sat, 21 Apr 2007 16:45:41 +0200***
Subject: Jupiter 19th april 2007

Just fairly good seeing until 06H15 for this session, but good transparency.
http://www.astrosurf.com/pellier/J070419-CPE
It's interesting to note how absorbing is now the whole planet in blue light, with the notable exception of the closed anticyclonic circulation in the STrZ (by STrD2). This must be also an element of the global change...
Io is in transit in front of the planet but is only visible in IR, as Jupiter's albedo is much lower than Io's in that wavelenght. Best wishes

○・・・・・・・***Date: Sun, 22 Apr 2007 09:55:02 +0200***
Subject: Violet Saturn 18/04

Hi all, here is a violet image of Saturn taken with the W47.
http://www.astrosurf.com/pellier/S070418-CPE
As usual the filter records details midway between B and UV.

○・・・・・・・***Date: Sun, 22 Apr 2007 14:41:26 +0200***
Subject: Venus 18th april 2007

Hi all
http://www.astrosurf.com/pellier/V070418-CPE
Again a surprising result here ; the details of the B image differ noticeably from UV, to a point where it looks more coherent with G... I believed that B was identical to UV (with lower contrast). However looking at my previous sessions, it seems that on the 6th there were also some marked differences. Every other sessions show identical patterns.

○・・・・・・・***Date: Sun, 22 Apr 2007 15:59:25 +0200***
Subject: Venus april 20th 2007

And now the 20th,
http://www.astrosurf.com/pellier/V070420-CPE
This time the B image is identical to UV.

○・・・・・・・***Date: Sun, 22 Apr 2007 17:15:31 +0200***
Subject: Re: May I ask?

Dear Masatsugu, Very interesting images... I have processed one R and one B into a sharpended, false-color RsGB composite. It's quite curious but the only explana-

TEN YEARS AGO (140)

----CMO #188 (10 Apr 1997) & #189 (25 Apr 1997) ----

CMO #188 (pp2043-2062)と#189(pp2063-2078)には、それぞれ三月後半と、四月前半の報告がまとめられている。この期間の20Marに火星は最接近(δmax=14.2", λ=093°Ls)となった。

三月後半には、国内12名、国外11名から観測報告があった。日本からはシュルティス･マイヨルの朝方からタルシス地方までが観測範囲で、衝の頃にはオリュムプス・モンスの南中が観測できた。活動のピークは過ぎていたが山岳雲の様子がタルシス三山を含めてまとめられている。ほかにも北極周辺の様子などが取り上げられた。四月前半には、国内11名、国外12名の報告があった。記事としては、活動期に入ったヘッラスの様子がまず取り上げられた。次いで、マレ･アキダリウムの朝方、シュルティス･マイヨルの朝夕、エリュシウム･モンス、北極域の様子が詳しく述べられている。両号とも海外からの報告が、欧米別に短いコメントをつけて纏められている。(右の#188の表紙はこのPDFを400%にすると読める。)


ISSN 0917-7388
Communications in Mars Observations
火星通信 No. 188
NO. 10/1996~1997
10 April 1997
Published by the OAA Mars Section
OAA MARS SECTION — Fortnight Report
1997年三月後半(16 Mar~31 Mar)の火星面観測
Martian Surfaces in the Second Half of March 1997
南 政 次 M MINAMI
2043

#188のLtEは、石橋力(Is)、松本直弥(Mt)、岩崎徹(Iw)、日岐敏明(Hk)、伊舎堂弘(Id)、阿久津富雄(Ak)の各氏より、国外からは、Harry SUDWISCHER(USA)、Thomas R CAVE(USA)、Nelson FALSARELLA (Brasil)、Richard SCHMUDE Jr (USA)、 Francis OGER (France)、Johan WARELL(Sweden)、Frank J MELILLO (USA)、 Richard SCHMUDE (USA), Giovanni QUARRA (Italy)、Jim BELL (USA)の各氏からの便りがあった。ヘール・ボップ彗星(Hale-Bopp comet was approaching)が接近していた時期であり、Mt氏、OGER氏の観測したコマの画像が掲載されている。

#189では、国内からは、Iw、中島守正(Nk)、木村精二、Hk、Idの各氏。国外からは、R SCHMUDE、Jean DIJON (France)、SGPG:Andrea LEO & G QUARRA、J WARELL、Ann SPRAGUE (LPL, USA)、André NIKOLAI (Germany)の各氏からの便りが紹介されている。

TYA(18) はCMO#030 (10 April 1987)、 TYA(19) はCMO#031 (25 April 1987)の二号の紹介である。当時は火星は1987年八月の合に向けて太陽に接近中で、OAA Mars Section も前者で最終回となった。ほかに惑星写真関係の記事の掲載が記録されている。

#188には「夜毎餘言･LII廿一世紀(1)」が、#189には "Click CMO (6)" が掲載されている。後者は、HST撮影の1996/97の画像を用いての北極冠(NPC)の考察である。#189の埋め草「藤沢便り」には、当時も花粉症で不調の筆者の便りが採り上げられている。

村上 昌己 (Mk)

tions I would have is that this is a shadow casted by the lining front. It's also dark in blue, which is coherent with the hypotesis. In the image we may see dust at left of the dark line, but not at right, so it could be a sharp-edge cloud front. Do you think this could be the real explanation of Rima Tenuis ? I had already seen those bands on MGS images and once thought it could be an answer. Best wishes

○・・・・・・・***Date: Mon, 23 Apr 2007 19:49:44 +0200***
Subject: Re: Venus 18th april 2007

Paolo, I'm more than surprised... a bit concerned ! Did I made a mistake? Is this the L filter? It would be difficult as the B filter is always located after G in my filter selector, and the L is rarely set in. Moreover, the diagonal bands are also visible in G, and finally, the details look too much contrasted for L. But, a friend of mine took an image with four W80 blue filters stacked, and his image ressembles my UV, not B. I have no explanation !

Paolo R. Lazzarotti *a écrit :*

> Chris, An oddly straight pattern the one you grabbed in the B filter!

○・・・・・・・***Date: Mon, 23 Apr 2007 22:15:35 +0200***
Subject: Re: May I ask?

Dear Masatsugu, I will try to read that article. I have less and less time to spend in astronomy except observing! my 2005 Mars paper is still half-made, and now I feel the urge to write something on Venus... ! While I'm preparing a new /concours/ /de la fonction publique /for october, to reach a higher position at work. This is also time-consuming, although it's also quite pleasant in the sense that my second point of interest after astronomy is the political, economical and social evolution of my country and Europe (yesterday's clear sky was sacrified to watch the elections show on TV). With best wishes.

PS I had recently the idea to watch Mars after Jupiter during my recent morning sessions. But I have not even been able to find it by naked eye! I suppose it's still lying very low on the horizon. But I'm just waiting for it!

○・・・・・・・***Date: Mon, 23 Apr 2007 22:21:33 +0200***
Subject: Re: Jupiter 2007 April 19

Hi David : this is a quite satisfaying work for 17°. Europe is still battling :-))

David Arditti *a écrit :*

> The morning of the 19th also brought good seeing. These
> images are very comparable to Christopher Pellier's taken a few
> minutes earlier from Paris, with the IR-bright Io crossing the NEB -
> it shows up in my R image because it doesn't use an IR block.
> Nice to be able to image the GRS again.

Christophe PELLIER (ｸﾘｽﾄﾌ･ﾍﾟﾘｴ *nr* Paris 法)
http://pellier.christophe.club.fr/index.htm

●・・・・・・・***Date: Fri, 30 Mar 2007 02:33:24 +0200***
Subject: Re: Venus UV 070328

Dear Venus Colleagues, here my venus from 28.03.2007

○・・・・・・・***Date: Sat, 31 Mar 2007 04:09:17 +0200***
Subject: UV-Venus from 25.3. - 29.3.07

Dear Venus Colleagues, please find attached a complete rotation of the Venus clouds. At
http://www.sternwarte-zollern-alb.de/mitarbeiterseiten/kowollik
you will find all my planets, including Venus and comments ... best wishes

○・・・・・・・***Date: Tue, 03 Apr 2007 19:00:30 +0200***
Subject: venus from 02.04.2007

Dear colleagues, here my Venus from yesterday. Today and the next days we will have cloudy skies, so I have to wait for clear skies... best wishes

○・・・・・・・***Date: Fri, 06 Apr 2007 06:33:43 +0200***
Subject: Venus from 5.4.2007

Dear Colleagues, here my UV-Venus from 5.4.07.

A few days ago I contacted Dr. Markiewicz, Max-Planck-Institute for Solar System Research, Katlenburg-Lindau, Germany in order to get some information about the rotation period of the cloudtop. Here his answer:

> Our preliminary results of feature tracking in the VMC data are
> from 10 deg N to 40 deg S zonal winds are about 100 m/s.
> For higher latitudes wind speed decreases nearly linearly down to
> about 40 m/s in the polar region (about 80 deg S). We do not
> have data for higher latitudes in the north but rough symmetry can
> be assumed. Period varies nearly linearly from 5 days at the
> equator to about 3 days in the polar region.

best wishes

○・・・・・・・***Date: Wed, 18 Apr 2007 03:50:49 +0200***
Subject: Re: Venus from 15.4.07 and 16.4.07

Hi Frank,

> Great job! I saw your Venus website and why don't you make a short
> animation? We can actually see the features rotating and to see a
> four-day rotation period!

this is hard work for rainy days, I have no Programme to do it "automatically". Especially to center and rotate Venus exact needs a lot of time...

○・・・・・・・***Date: Wed, 18 Apr 2007 03:56:46 +0200***
Subject: Venus from 17.4.07

Hi all, the next Venus is on my Homepage...
http://www.sternwarte-zollern-alb.de/mitarbeiterseiten/kowollik/venus

○・・・・・・・***Date: Fri, 20 Apr 2007 03:23:52 +0200***
Subject: 6-day rotation of Venus

Hi all, during the last 6 days I could take some pictures and 2 times I found corresponding features between following observations.

15.4.: bright spot north of equator on the left side
16.4.: bright white cloud north of equator into the night side
18.4.: bright spot north of equator on the left side
19.4.: bright cloud north of equator into the night side here you will find the pictures and an animation of these 6 days

http://www.sternwarte-zollern-alb.de/mitarbeiterseiten/kowollik/venus

The seeing was only average, but during the 6 days we had a very bright Venus, so I could switch of the amplifier of my videomodul and had a very good signal...

best wishes

Silvia KOWOLLIK
(ｼﾙｳﾞｨｱ･ｺｳﾞｫｯﾘｸ Ludwigsburg 德)

●・・・・・・・***Date: Fri, 30 Mar 2007 16:24:07 -0500***
Subject: 3 minute waltz

Chopin would have liked the efficiency of this very short story spanning 4 years of imaging:
http://www.avertedimagination.com/img_pages/saturn_04_07.html

Each year the air above my backyard seems to yield one good picture of saturn - a link to the latest image is provided underneath the animation. If you follow on you will find a page with the RGB components. Notice an eine kleine encke division in the blue image - quite unusual from my neck of the woods.

I hope to be lucky enough to continue this project until the rings are edge on - and perhaps back again!
best wishes -

Alan FRIEDMAN (ｱﾗﾝ･ﾌﾘｰﾄﾞﾏﾝ Bufalo NY 美)
http://www.avertedimagination.com

●・・・・・・・***Date: Sat, 31 Mar 2007 19:49:39 +0200***
Subject: Venus, march 28th 2007

Hi all, to much stuff to do, so here one image from the 28 th march. Soon there be more.

○・・・・・・・***Date: Mon, 16 Apr 2007 19:33:19 +0200***
Subject: Venus Images (April 15th, 2007.)

hi, here some venus images from yesterday.
Kindly regards

○・・・・・・・***Date: Wed, 18 Apr 2007 19:41:43 +0200***
Subject: Venus　rotation in 3 day's

Hi Guys, I have made an animation from venus over 3 days (15-16-17 april). Seeing good be beter , still we can see some nice details in the clouds.

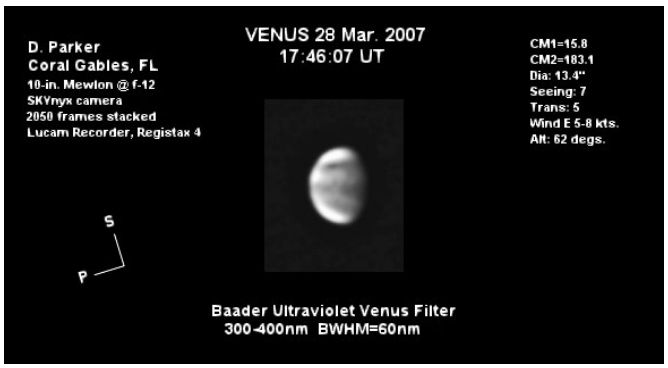
Note in the animation, it seems that the rotation in south-west (see the cusp caps collars rotation), but i not for sure. Kindly regards

Richard BOSMAN (ﾘﾋｬﾙﾄ･ﾎﾞｽﾞﾏﾝEnschede荷蘭)
http://www.astrofotografie.nl/

●・・・・・・・***Date: Mon, 02 Apr 2007 05:36:49 +0000***
Subject: Venus, different UV filters

Hi All, I have attached two ultraviolet images of Venus. Both were taken with my 10-inch Mewlon. The Baader filter image was taken at prime focus (*f*-12), while the Schuler filter image was taken with a 2× Powermate at *f*-24. Both show similar details. The Powermate absorbed some UV, since the integration times were dramatically increased with that device, no matter what filter was employed.

In addition I tested the exposure times and gain settings with each filter and at both *f*-12 and *f*-24. Both filters performed well and there was no IR ghost image detected with the Baader, most likely because these were daylight shots. Last year I did get severe ghosts with the Baader on Venus images taken in a dark sky and with eyepiece projection.



In all instances the Schuler filter required less gain than did the Baader. This confirms that, despite the published transmission curves, the Schuler (Johnson-Cousins) filter has a higher transmittance, at least in the very near UV and agrees with Christophe Pellier's excellent study at: http://www.astrosurf.org/pellier/comparuvfilters

○・・・・・・・***Date: Thu, 12 Apr 2007 04:43:18 +0000***
Subject: Saturn 3 April

Hi All,　I have attached a Saturn image from 3 April (at 1:34 GMT by a 25cm Meulon @*f*24 with Skynyx 2-0 Camera- *Ed*), Best

Don PARKER (唐那･派克 Miami, FL 美)

●・・・・・・・***Date: Mon, 02 Apr 2007 06:57:31 +0900***
Subject: Re: 幕張？

東北大学の研究会は3月22日に無事終わりました。質問は一件だけで、Dustの高さはどのくらいかというものでした。Cantorさんの論文によると、Globalにまで発展すると60kmぐらいで、10月19日にマリネリス峡谷に入り込んだものは、谷の深さが2～数kmのようです。

幕張の合同大会は5月19日になりました。以下のようなメールが来ております。翌20日の午前中にも「火星」のセッションはあるそうで、それを聞いて帰ろうかと思います。

○・・・・・・・***Date: Mon, 16 Apr 2007 06:00:57 +0900***
Subject: 東北大学研究会の集録

3月末の東北大学の研究会で発表した内容の集録の原稿を添付します。恐縮ですが、締め切りが4月27日なので、特に文章に、ざっと目を通していただければ、幸いです。お忙しいところ恐縮ですが、よろしくお願いいたします

○・・・・・・・***Date: Wed, 18 Apr 2007 10:57:41 +0900***
Subject: ボストンのローウェル

今日、松坂大輔の登板試合をテレビで見ていたら、ボストンレッドソックスの三塁手がローウェルでした。ご存知でしたか？綴りも同じですね。ボストンのローウェル(キューバ出身?)で、なにか不思議が気がしました。

○・・・・・・・***Date: Fri, 20 Apr 2007 05:58:31 +0900***
Subject: Re: 温暖化いろいろ

私も漠然と、1)長期的にはCO_2が増加して温暖化している、2)この冬の暖冬など、短期的にはエルニーニョなど海洋の動向が大きく気候に影響を与えている、という印象を持っていただけでした。「温暖化いろいろ」をもっと読んで勉強したいと思います。

○・・・・・・・***Date: Sun, 22 Apr 2007 07:44:40 +0900***
Subject: Re: 東北大学の研究会の集録

お忙しいところ、原稿を訂正していただき、ありがとうございました。こちらでもう少し検討して、改訂版を東北大学に送りたいと思います。

浅 田　正 (Tadashi ASADA 宗像 Fukuoka)

●・・・・・・・***Date: Mon, 02 Apr 2007 13:39:22 +0200***
Subject: Re: [Fwd: Rencontre in 2009]

Cher Christophe, Merci beaucoup pour cette information inestimable. Je trouve l'idée tout à fait excellente! Je ne sais pas ce qu'en pense Nicolas, mais il me semble que l'on pourrait imaginer une manifestation du même "tonneau" que ce qui avait été organisé pour IWCA III par la SAF en partenariat avec l'Observatoire de Paris. En 2009, la Grande Lunette devrait être quasiment opérationnelle. Une inauguration de la coupole seule devrait avoir lieu (sous réserve) au mois de juin. On peut imaginer raisonnablement que la lunette elle-même pourrait être inaugurée fin 2008. De plus, il me semble que l'Observatoire de Paris est fortement impliqué dans la célébration de *l'Année astronomique internationale*. Si vous n'y voyez pas d'inconvénient, et avec l'accord du Conseil de la SAF, Nicolas et moi-même pourrions aller soutenir cette initiative devant la Présidence de l'Observatoire de Paris. Un budget prévisionnel devrait évidemment être mis en place, mais nous avons encore un peu de temps pour cela.

Bien amicalement,

Daniel CRUSSAIRE (ﾀﾞﾆｴﾙ・ｸﾘｭｾｰﾙ
Observatoire de Paris-Meudon 法)
Président, Commission des Observations Planétaires de la SAF

●・・・・・・・***Date: Tue, 3 Apr 2007 15:29:32 -0700***
Subject: Venus 3-31

Reprocessed my data from 3/31, ans was able to squeeze some hints of cloud features in IR. Also attached is a mediocre image of Mercury captured at the same FL the next morning (9:53 EDT, 4/1/2007)

○・・・・・・・***Date: Sun, 8 Apr 2007 10:00:41 -0700***
Subject: Jupiter 4-8, Saturn 4-7

Here is an RGB of Jupiter from this morning. Details in the image. Also attached is Saturn from 4-7, 4:53 UT, same scope and focal length.

○・・・・・・・***Date: Wed, 11 Apr 2007 09:35:15 -0700***
Subject: Jupiter (April 11th, 2007.)

Poor seeing, but still worth the effort. On all my images, North is up.

○・・・・・・・***Date: Thu, 12 Apr 2007 06:41:19 -0700***
Subject: Venus: April 11 & 12, 2007

Attached are two images of Venus. Seeing: fair 4/11, poor 4/12.

○・・・・・・・***Date: Fri, 20 Apr 2007 19:31:56 -0700***
Subject: Venus 4/20-21

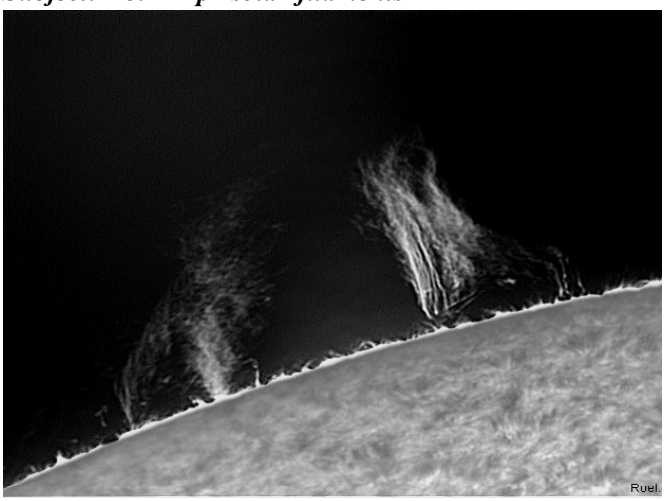
Had very good seeing this evening just before sunset. Here are my two best results. I picked up a fused silica lens that I fashioned into a barlow- it has excellent UV transmission, though I still needed to add my Astro-Physics Barcon to achieve an acceptable image scale. Still, both together still allowed a bright image at 98 frames per second.

○・・・・・・・***Date: Mon, 23 Apr 2007 09:53:13 -0700***
Subject: Venus 4/22

Thin clouds reduced my exposure time to 48 FPS. Still, interesting when compared to my images from 4/20.

Sean WALKER (ｼｮｰﾝ・ｳｫｰｶｰ MA 美)
http://masil-astro-imaging.netfirms.com/home.html

●・・・・・・・***Date: Wed, 04 Apr 2007 17:36:54 -0500***
Subject: Re: 2 Apr solar filaments



Hi: Today the 4th of April, I imaged the filament that David recorded a day before. Also I got a protuberance. Hope you like them and thanks for looking. The system is a 5.1" *f*/30 + a DayStar 0.45Å + LU-075M. Regards,

Eric ROEL (ｴﾘｯｸ・ﾛｴﾙ Mèxico 墨西哥)

●・・・・・・・***Date: Thu, 5 Apr 2007 20:46:13 +0100***
Subject: Solar disk 2007-04-05

A fairly quiet Sun today. One fairly interesting prominence and a solitary filament...

http://www.digitalsky.org.uk/solar/2007/2007-04-05_12-57-58_full-solar-disk_1024.jpg

○・・・・・・・***Date: Mon, 9 Apr 2007 17:29:28 +0100***
Subject: Saturn, 8th April 2007

Hi all, Here's another Saturn from the 8th April. Seeing was (for Paulo) slightly better than average for the UK on this occasion. A white spot was noted in the SEB which, if I hadn't consumed most of a rather nice bottle of red wine, I would have followed throughout the evening. Best regards,

○・・・・・・・***Date: Mon, 16 Apr 2007 14:01:46 +0100***
Subject: Re: solar images 14&15 Apr

Hi Dave, Thanks for the great images. The complex prominence shots are of particular interest as I caught these with my diminutive PST over the weekend too.

It's interesting seeing how the features relate to one another. The PST does well for it's size but I feel a yearning for resolution... Best regards,

Pete LAWRENCE (ﾋﾟｰﾄ・ﾛｰﾚﾝｽ Selsey 英)
http://www.digitalsky.org.uk

●・・・・・・・***Date: Fri, 06 Apr 2007 12:44:01 +1000***
Subject: Re: From M MINAMI/CMO/OAA

Dear Masatsugu, Thank you so much for your recent message; it is good to hear from you. Please excuse my delayed reply - I have been trying to obtain a decent image of Mars to send you, but the seeing conditions have not cooperated.

I have tried to image Mars on three occasions so far; the first two times were very poor, the latest from this

morning is attached.

I have been well, thank you, and am looking forward to another Mars season. As you can see from my image, surface features are still not clear for me at 4.9", but hopefully the seeing will improve in the next few weeks and I can provide you with better images.

We have experienced a very long dry period here in Victoria, with significant water shortages, but unfortunately this has not meant that we have had good skies - many warm, dry & cloudy days.

Comet McNaught was indeed a spectacular sight from here. From a dark sky a 40 degree or more striated tail dominated the evening sky - truly impressive. Even from the city the comet was clearly visible. I have attached a couple of images for your interest.

Very best wishes to you, and to all at the CMO

○・・・・・・・***Date: Sat, 07 Apr 2007 11:03:49 +1000***
Subject: Re: Another version

Dear Masatsugu, Here is another Mars image taken this morning with better seeing. I will send the McNaught image details later today. Best wishes

○・・・・・・・***Date: Sat, 07 Apr 2007 17:25:41 +1000***
Subject: Comet image parameters

Hello again Masatsugu, The comet McNaught images that I have sent to you were taken with my Canon EOS 300D digital camera. The first image is a single 30s exposure through a 135mm Takumar lens at *f*/3.5, guided on my EQ6 portable mount. Processing was in IRIS. Image taken on Monday 22nd January 8:44pm AEDT. The second image is a composite of 3×120s exposures, unguided, with a tripod. Lens was the standard Canon 18mm to 55mm zoom at 18mm fl. Image taken on Monday 22nd January 9:03pm - 9:20pm. All data taken from the Astronomical Society of Victoria's dark sky site north of Melbourne at Heathcote 144°40'34"E and 36d°48' 19"S. Kind regards

Maurice VALIMBERTI (モーリス・ヴァリムベルティ Melbourne 濮)

●・・・・・・・***Date: Fri, 6 Apr 2007 17:06:22 +0100***
Subject: Re: 6th April 2007.

Some nice work youve done recently Eric. There have been some really nice prominences.

I am currently concentrating on Saturn, and recently completed some more lunar work. The weather has been good recently, though still the seeing has not been really good....

I am away overseas again in 6 weeks time, so hopefully then i can finally catch some great seeing. Best Wishes

○・・・・・・・***Date: Mon, 9 Apr 2007 00:31:54 +0100***
Subject: Re: Jupiter 8th april 2007

Hi Sean, The effect is a "fault" in the LU075 camera. Ive talked with Thomas Maroney at Lumenera regarding this last year, and it was corrected in the SKYnyx series. It only occurs when using a certain frame rate at low gain. There was a discussion on this very issue some time ago on lumenera yahoo group.

Try using a different frame rate - it should disappear.

Best Wishes

■・・・・・・・***Date: Sun, 8 Apr 2007 14:26:27 -0700***
Subject: Jupiter 8th april 2007

here is my entire series from 4/8/07. Anyone know the cause of the "bullseye" pattern on some of the images? **Sean WALKER**

○・・・・・・・***Date: Mon, 9 Apr 2007 15:17:58 +0100***
Subject: Venus Images (April 8th, 2007.)

Hi all, Here are my first Venus images of this elongation. Thanks to Dave Tyler for loaning me a mount which has enabled me to take images!

Set-up during the afternoon, and the telescope was taken out of storage. It wasnt until after sunset i was able to check the collimation and discovered it was really way off (stars were like small comets!) so i am really suprised these images actually show anything given how mis-collimated the scope was!....the resolution must be half or less of what it could have been.....

Everything is properly calibrated now, so hopefully future sets should be much better :-) Best Wishes

○・・・・・・・***Date: Wed, 11 Apr 2007 16:33:27 +0100***
Subject: Venus Images (April 10th, 2007.)

Hi all, Here are some Venus images from yesterday. The scope is up and running properly now :-)

Seeing was fair to poor with scattered clouds. Some markings nicely seen in the 1 micron image. UV shows some nice cloud structures. Best Wishes

○・・・・・・・***Date: Thu, 12 Apr 2007 00:37:42 +0100***
Subject: Venus Images (April 11th, 2007.)

Hi all, Here are some images from this evening. Fair seeing, though problems with clouds throughout, especially later. An interesting bright streak in the UV image near the south pole. Best Wishes

Damian PEACH (ﾃﾞﾐｱﾝ･ﾋﾟｰﾁ Bkh 英)
http://www.damianpeach.com/

●・・・・・・・***Date: Tue, 10 Apr 2007 15:41:34 +0900***
Subject: Mars-2007-04-09-KUMAMORI

小さな火星像ですが報告いたします。眼視では全く何も見えていませんでした。最近はモノクロPCカムDMK21AF04とToUcamPROを使ったLRGBを模索しています。よろしくお願いいたします。

熊森 照明 (Teruaki KUMAMORI 堺 Osaka)

●・・・・・・・***Date: Thu, 12 Apr 2007 12:23:31 +0200***
Subject: Re: My first Venus images

David Arditti *wrote:*

>> Venus was grabbed on the dusk when the Sun was close to the
>> horizon and I used the Baader U filter with an additional IR
>> blocking filter to safely prevent any IR leakage.
>> Fortunately, I could use a fast exposure because of the complete
>> lack of AR coated glasses to be crossed by the UV radiation.
> I am interested in this comment. Why should this be an effect? Does
> AR coating decrease the transmission of UV?

Yes, a lot indeed!! Arnaud van Kranenburg did an interesting test regarding this, I invite him to send details. I was already aware of the visible bandpass admitted by most of AR coating in the market. In fact, you can also find a dedicated (and very expensive!) line of accessories for the UV imaging. You can also find some company which provide a particular series of Sony sensors with a special coating in order to dramatically increase the sensitivity at such short wavelenght. Eureca GmbH (one among my supplier) is one:

http://www.eureca.de/neu-english/optoelectronic/services-uv-coating.html

I could one day consider also these sensors as well for my next LVI cameras.

> The 10" D-K Cassegrain I have been using recently on Venus also
> lacks any AR coatings in the optical train. The results are similar to
> those I obtained with a C-11, which is coated on the corrector and
> Barlow, perhaps slightly better, despite the smaller aperture,
> whereas with Saturn, the C-11 is clearly the better performer, giving
> a much brighter image. Also, the result of adding an IR blocker to
> the Baader Venus filter is only small on the intensity through the D-
> K, whereas it cuts down the intensity through the SCT radically. I
> discussed this some time ago with Arnaud, but we did not consider
> any effect of AR coatings.

First of all, be sure you're ALWAYS doing any comparison at perfect parity of image scale. Even a small variation is getting quite different exposures because related by a factor of 2. The Al coating is also playing a role, be sure about the efficency with any mirror. I'm not clear about the conspicuos difference between the DK and the SC when adding an IR blocker: can you tell more?

Paolo LAZZAROTTI (ﾊﾟｵﾛ･ﾗｯｻﾞﾛｯﾃｨ Massa 義)
http://www.lazzarotti-optics.com

●・・・・・・・***Date: Thu, 12 Apr 2007 4:22:44 -0400***
Subject: Re: Saturn images and ansae

I have noticed that many saturn images taken with webcams often have dissimilar intensities in the ansae of the rings. I conducted an experiment to test a thought I had on the origin of this. It proved out. I think the intensity difference is due to the rings being aligned to the direction of the readout of the chip. If Saturn is oriented so the line through the ansae is perpendicular to the readout, the effect vanishes. Of course, then you are getting the effect more on the ball of the planet where it is less noticable but still there.

Rik HILL (ﾘｸ･ﾋﾙ LPL, Tucson AZ 美)

●・・・・・・・***Date: Fri, 13 Apr 2007 19:33:41 -0500***
Subject: Fw: mars global warming

Dear Masatsugu, An interesting paper just appeared in *Nature* on global warming and climate forcing by recent albedo changes on Mars. Have you seen it? I can send a copy if not. It is of first importance to your principal preoccupations.

Meanwhile, I am cc:ing you on this letter I just sent to Richard McKim, which you may find of interest.

You may recall that in about 2001 or so Jeff Beish, Don Parker, and I were working on a paper in which we were hoping to demonstrate, from ALPO data, that Mars's climate had been warming since the late 1970s, roughly in sync with the Earth's climate change during that period. We thought at the time the common trend might be explained by solar variation--Sallie Baliunas's work was quite influential at the time, and Sallie commented on the paper in draft. I had some conversations with Kelly Beatty (*Sky and Telescope*) on the subject and eventually a brief note on the subject appeared in *S&T*--however, the longish paper was abandoned, for various reasons, not least because we weren't able to convince ourselves that the paper was ready for submission to a peer-refereed journal. I may have sent you a copy of the draft.

The paper had been forgotten, more or less, until today, when I read that elegant study in *Nature* which clearly shows on the basis of Mars Global Surveyor data that the trend we thought we had detected was probably real--but the explanation is a surprise.

On another subject -- I am eager to pursue the organization of a conference in Paris in 2009. Could we do it during September? Flammarion and Antoniadi will be the featured subjects. The messages from Christophe and his colleagues sound very encouraging.

Warm regards,

○・・・・・・・***Date: Tue, 17 Apr 2007 17:05:35 -0500***
Subject: death of ito

Dear Masatsugu, I am very saddened to hear of the death of Mr. Ito, the mayor of Nagasaki. Though I did not meet him--he was in New York, testifying at the U.N., during my visit to Nagasaki--I will always remember the fondness with which I was received by his representatives, and have a place in my heart for that great and friendly and beautiful city. It is very sad news to hear of his passing. Regards,

Bill SHEEHAN (ｳｨﾘｱﾑ･ｼｰﾊﾝ MN 美)

●・・・・・・・***Date: Fri, 13 Apr 2007 19:59:24 +0900***
Subject: Mars on April 11th UT (Robert Heffner)

Dear CMO, Here is a Mars image on April 11th UT about 30 minutes after sunrise. My first R-G-B Mars with the DMK, though the low altitude combined with imagingin daylight doesn't help much, so quality is not so good. Best regards,

○・・・・・・・***Date: Sat, 14 Apr 2007 23:47:18 +0900***
Subject: Re: RE:Mars on April 11th UT

Dear Minami-san, It is good to hear from you! I hope all is well there in Fukui.

I am excited about the 2007-2008 Mars season, though unfavorable conditions for us here in Japan such as the small apparent diameter - low altitude - daylight imaging etc. will be prevalent for the next couple of months. Anyway, I will make some attempts whenever I can.

I'm sorry about the mojibake; I am able to communicate trouble-free with others in Japanese from this e-mail account, so I will investigate into what is causing the problem. Best regards and have a good weekend,

Robert HEFFNER (ﾛﾊﾞｰﾄ･ﾍﾌﾅｰ 名古屋 Aichi)

●・・・・・・・***Date: Sat, 14 Apr 2007 15:26:14 +1000***
Subject: Mars image 11Apr2007

Please find attached my Mars image from the 11th of April 2007. The seeing was poor but on top of that I managed to overexpose the red channel which could not be used as a consequence.

○・・・・・・・***Date: Fri, 20 Apr 2007 22:15:24 +1000***
Subject: Mars image 19th Apr. 2007

Please find attached my Mars image from the 19th of April 2007.

Stefan BUDA (ｽﾃｨｰﾌｧﾝ･ﾌﾞﾀﾞ Melbourne 濠)

●・・・・・・・***Date: Wed, 18 Apr 2007 22:29:03 +0900***
Subject: Re: お願い一つふたつ

メール、ありがとうございます。３月25日にベトナムから帰国しました。三度目のベトナムということもあり、仕事も生活も比較的順調でした。沖縄は琉球の時代にはベトナムとも交易があったので、よく似たところが多いようです。ホーチミンの職場近くの大衆料理屋の豚の角煮など、当地のラフティとソックリでした。ニガウリやエンサイ(空心菜)などを使った、沖縄でなじみ深い野菜料理もあります。しかし、食材の豊かさ、味付けの多様さは沖縄料理の比ではなく、ベトナム料理は、中華料理に比肩するほど素晴らしいと感じました。

オジーの鍼灸院は、出張前に左肩が痛み出したので、久しぶりに針を打って貰おうと訪れたのですが、残念ながら長期休院となっていました(年老いたオジーは、足の関節を悪くしたそうです)。代わりに他の鍼灸院へ行ったのですが、施設は立派ながら腕はイマイチで、ベトナムへ渡ってから一ヵ月半は四十肩が痛くて熟睡出来ませんでした。

沖縄地方、例年になく４月の天気が良くありません。気温も低めで、未だ満足なシーイングに恵まれておりません。

写真と火星図、今週末にでもスキャンして送信いたします。

宮 崎 勲 (Isao MIYAZAKI うるま Okinawa)

☆ ☆ ☆

シー・エム・オー・フクイ　　中 島 孝 *Nj*

★前々回報告以降、カンパ・ご寄付はありませんでした。不一

☆ Kasei-Tsûshin CMO (*Home Page*: **http://www.mars.dti.ne.jp/~cmo/oaa_mars.html**)
『火星通信』#330 (25 April 2007) 編集：**南 政次(*Mn*)、村上 昌己(*Mk*)、中 島 孝(*Nj*)**
西田 昭徳(*Ns*)、常間地 ひとみ(*Ts*)
Edited by: **Masatsugu MINAMI, Masami MURAKAMI, Takashi NAKAJIMA, Akinori NISHITA and Hitomi TSUNEMACHI**
発行 Published by/for : **東亜天文学会 OAA 火星課** Mars Section

☆ *Any e-mail to CMO is acknowledged if addressed to*
cmo@mars.dti.ne.jp (Masami MURAKAMI at Fujisawa)
vzv03210@nifty.com (Masatsugu MINAMI at Mikuni-Sakai)
☆ *Usual mails to CMO are acknowledged if addressed to*
Dr Masatsugu MINAMI, 3-6-74 Midori-ga-Oka, Mikuni, Sakai City, Fukui, 913-0048 JAPAN
〒913-0048 福井縣坂井市三國町緑ヶ丘3丁目6-74 南 政次 (☎/FAX 0776-82-6222)