ISSN 0917−7388

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

MARS No. 331

25 May 2007

OBSERVATIONS Published by the OAA Mars Section

CMO 2007/2008 Mars Report # 02

OAA Mars Section

THIS is the second report in the 2007/2008 apparition and deals with the observations made during the period from

16 April (λ=220°Ls) to 15 May (λ=239°Ls).

During the period the apparent diameter δ just increased from 5.1" to 5.5". The central latitude φ was 25°S, and the southern hemisphere well faced to us. The season reached when the centre of the spc deviates from the pole. The phase angle ι increased from 32° to 36°. The apparent declination was moving to the north: it reached the celestial equator on 20 May. On 16 May, the rainy season began at Okinawa.

♂……今回は今期二回目の報告であるが、期間は16April(λ=220°Ls)~15May(λ=239°Ls)の一ヶ月で、その間の觀測を見る。この間、視直徑δは5.1"から5.5"に延びたに過ぎないが、こちらからは可成り高くなって觀測が乘ってきた。φは25°Sで南半球がこちらを向いている。南極冠は偏極の季節を迎えている。位相角ιは32°から36°に增えた。次第に視赤緯は北に寄り、20Mayには天の赤道に達した。沖縄は五月16日に入梅した。平年より一週間遲い由。

♂……The observations we received this time are as follows: 今回の觀測報告は次の如くである。

BATES, Donald Ray ドン・ベーツ (*DBt*) 德克薩斯·休斯敦 Houston, TX, USA
1 CCD Image (14 May 2007) *f*/30⊗25cm spec with a ToUcam Pro

BUDA, Stefan スティーファン・ブダ (*SBd*) 墨爾本 Melbourne, Australia
5 CCD Images (19, 23, 25, 30 April; 12 May 2007) *f*/35⊗40cm Dall-Kirkham with ToUcam Pro

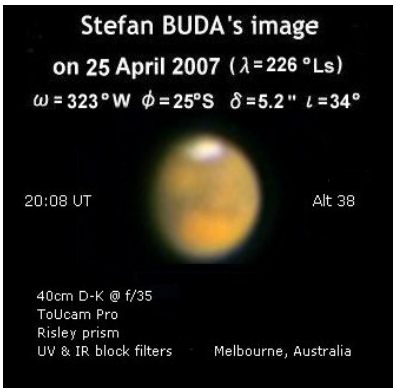
HEFFNER, Robert ロバート・ヘフナー (*RHf*) 名古屋 Nagoya, Aichi, Japan
2 CCD Images (29 April; 4 May 2007) *f*/45⊗28cm SCT with DMK21AF04

KUMAMORI, Teruaki 熊森 照明 (*Km*) 堺 Sakai, Osaka, Japan
1 CCD Image (2 May 2007) *f*/45⊗20cm Dall-Kirkham with a DMK21AF04/ToUcam

MINAMI, Masatsugu 南 政次 (*Mn*) 福井 Fukui, Fukui, Japan
17 Drawings (19, 26, 28, 29 April; 3, 7, 8, 11, 13, 15 May 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
6 Drawings (29April; 3, 8, 11, 15 May 2007) 400×20cm Goto ED refractor*
* Fukui City Observatory 福井市自然史博物館屋上天文臺

♂……The observations were made mainly at Australia and Japan, and so the angles are not exhaustive, but this time BUDA (*SBd*) put forward several important observations during the period. On 19 Apr (λ=222°Ls) at ω=021°W, he produced an excellent image where Argenteus Mons was especially bright inside the spc. It also shows well the series of Meridiani S, Margaritifer S and Aurorae S and also Argyre in the south and Niliacus L in the north. His image on 23 Apr (λ=225°Ls) at ω=343°W shows that, Argentius



Mons being at the morning side, the broad and dark M Serpentis is coming. The following *SBd* image on 25 Apr (λ=226°Ls) at ω=323°W belongs to the best part, and shows clearly the dark and broad M Serpentis which is invariable ever since the July 2003 dust event (in 2005 the area was sometimes described to have become fainter, but this must have been because of the dust haze, and so it was no Albedo feature). This image also shows well Syrtis Mj and S Sabaeus as well as S Meridiani. HEFFNER (*RHf*) on 29 Apr (λ=229°Ls) at ω=300°W also shows the dark and broad M Serpentis as well as Syrtis Mj. On *SBd*'s image made on 30 Apr (λ=229°Ls) at ω=278°W, Syrtis Mj was near the CM. Notable is that the preceding part of the spc has become weaker. The roundish Hellas looks to show the ground itself. KUMAMORI (*Km*) made an image on 2 May (λ=230°Ls) at ω=244°W in which Hellas is bright at the morning side, and also *RHf* showed Hellas largely on 4 May (λ=232°Ls) at ω=239°W, but *RHf*'s image is R-IR one and so we cannot say about the content. *RHf*'s image however reproduces well the aspect when the planet fades away inside the eye field at dawn. Finally *SBd*'s image on 12 May (λ=237°Ls) at ω=157° is important since it proves that the right-hand following side of the spc has already begun to thaw. Note that, for the time being, the aspect of the spc should look different from angle to angle. For further reference, see MURAKAMI (*Mk*)'s charts at p.ser2-0130 in CMO #307 (however φ is slightly different from 2005). From around ω=210°W, the spc will look narrower in depth.

At Fukui, we certified the darkening of M Serpentis on 26 Apr (λ=227°Ls) at ω=303°W & 313°W, and checked Noachis. On 28 Apr (λ=228°Ls), Syrtis Mj came to the CM. We should say Hellespontus is visible. We observed that the right-hand-side of the spc looked fainter around from 7 May (λ=234°Ls) and 8 May (λ=235°Ls), and made sure on at 11 May (λ=236°Ls) at ω=159°W, 164°W (*Nj*), 169°W. We also watched the area of Arsia Mons, but was uncertain. Perhaps the cloud must have been weak

♂……未だ、殆ど澳大利亞と日本の觀測だけであるが、今回はブダ(SBd)氏が重要な觀測を総浚えした。19Apr(λ=222°Ls)ω=021°Wは過剰處理の無い良像で、南極冠内ではアルゲンテウス・モンスが一際明るく出ている。シヌス・メリディアニからマルガリティフェル・シヌスを過ごしてアウロラエ・シヌスも正常に描寫されており、南ではアルギュレ、北ではニリアクス・ラクスが出ていて美事である。23Apr(λ=225°Ls)ω=343°Wではアルゲンテウス・モンスが右側に行き、濃いマレ・セルペンティスが出てきている。25Apr(λ=226°Ls)ω=323°Wの畫像は壓巻で、太く濃いマレ・セルペンティスが明確、2003年七月黄塵以來不變である(2005年に淡化した様に描寫されたのは黄雲の所爲であろう)。シュルティス・マイヨル、シヌス・サバエウス、シヌス・メリディアニが好く出ている。ヘフナー(RHf)氏の29Apr(λ=229°Ls)ω=300°Wでもマレ・セルペンティスは太く明確で、シュルティス・マイヨルも濃い。SBd氏の30Apr(λ=229°Ls)ω=278°Wにはシュルティス・マイヨル南中、南極冠の前方が消えかかっている。ヘッラスが圓く地肌風に描寫されている。熊森(Km)氏の2May(λ=230°Ls)ω=244°Wではヘッラスが朝方で明るく、またRHf氏が4May(λ=232°Ls)ω=239°Wで大きなヘッラスが見えている、がR-IR像なので内容が判らない。像としては朝まだきの火星の見え具合が再現され、入ってきたシュルティス・マイヨルも描寫されている。最後にSBd氏の12May(λ=237°Ls)ω=157°Wの觀測も重要で、南極冠の右側が速く溶解している事が判る。ここ暫くは南極冠の様子が方向によって變わる。#307のp.ser2-0130のMk氏の圖を參照すると好い(但しφが2005年とやや異なる)。ω=210°W前後では南極冠の厚みは薄くなって了う。

福井の觀測では、26Apr(λ=227°Ls)ω=303°W、313°Wなどでマレ・セルペンティスの濃化は確認している。ノアキスはチェックしている。28Apr(λ=228°Ls)にはシュルティス・マイヨルが南中した。ヘッレスポントゥスが見えていると言うべきだろう。7May(λ=234°Ls)、8May(λ=235°Ls)から南極冠の右側が淡くなっているのを見たが、11May(λ=236°Ls)ω=159°W、164°W、169°Wなどで確認した。アルシア・

モンスに就いても注意したが、確固とした結果は得られなかった。淡いのであろうと思う。

♂……At Fukui, now the temperature is above 10°C. But when it rises to 18°C, the southerly breaks the seeing. On 13 May, the present writer (*Mn*) first saw the shining Mars by his naked eyes.

♂……福井では朝方も10°Cを越えることが多くなって楽である。ただ18°C等となると南風が入ってシーイングが悪い。13MayGMTには透明度が好く、筆者は初めて肉眼で火星を見た。

♂……In the next issue we shall review the observations made during a one-month period from 16 May 2007 (λ=239°Ls, δ=5.5") to 15 June 2007 (λ=258°Ls, δ=6.0").

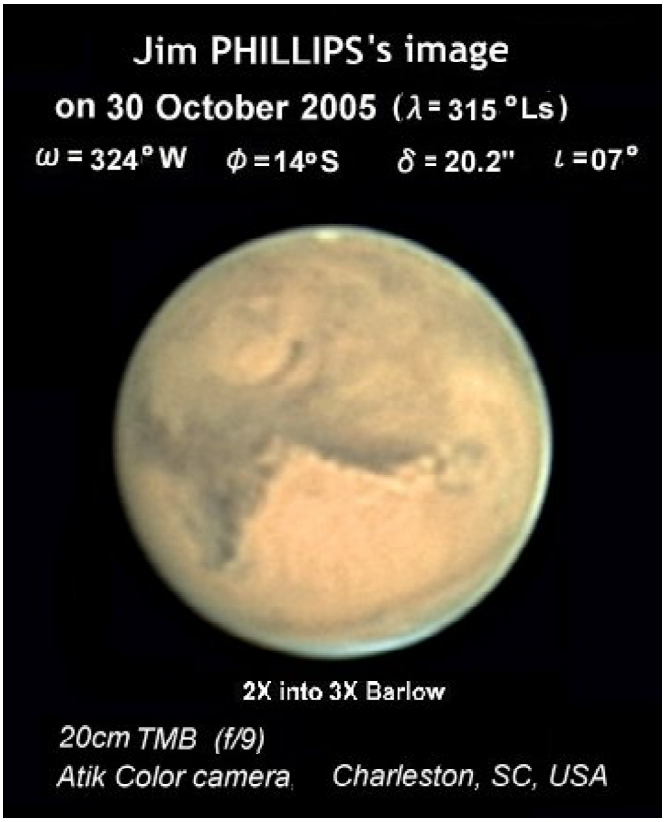
南　政 次　M MINAMI (*Mn*)

■CMO 2005 Mars Note (14)

Dust above S Meridiani on 30 October 2005

シルス・メリディアニ上の黄塵

■ 南　政 次　M MINAMI



Aryn's Nails have been a good old name from my boyhood for two bays of S Meridiani: It was of course rare for us to have a chance to discriminate the two nails, but it was much rarer to encounter the case when Meridiani Sinus becomes to vanish. It should thus be said quite rare for Aryn's Nails to be covered by a dust, but it is much rarer that S Meridiani is half vanished as in 2005 on 30 October.

I don't know who gave such a common name as Aryn's Nails, but Aryn (should be pronounce as it were just like *Arün* (*Arun*) for German (French) since *y* here is *i-grec*) came from Fastigium Aryn used by SCHIAPARELLI in his Map in 1877-1878 to name the peak (land) between the two nails (sea) to imply an imaginary point in the Arabian Sea to have been long believed to be an origin of the terrestrial longitudes. Otherwise in the Map in 1881-1882, he called Aryn Promontrium. The nomenclature Sinus Meridiani was put forward by ANTONIADI in 1924, but for SCHIAPARELLI it was just S Sabaeus (see his map in 1877).

In 1986, TSAI, Director of the Taipei Observatory at that time, once told me that Aryn's nails had appeared to him once or twice vanished (he was a Mars observer since 1941), but unfortunately I have never fully seen the vanished S Meridiani during my long observation life. I nearly saw the case of a half vanishing of S Meridiani in 1973 just after the strong dust was entrained near Solis L but it was just seen quite near the evening terminator (as to the phenomenon that a dust occurred on 18, 19 Oct 1973 at S Meridiani independently from the Solis L dust which started from 13 Oct 1973, I stated in Note (11) in CMO #328). In 2005, it just occurred after the disturbances at the Solis L area, but it was only observable from the US continent, and unfortunately it was after I retreated from Mt Hamilton. In 1956, a dust quite similar to the 2005 case occurred at S Meridiani, but it was observable just from Europe and South Africa, and impossible from Japan. Just I saw it later on the reprint-images of FINSEN (at Johannesburg) and it was very impressive to me.

To me, the dark nails which were pushed out from the dusty area looked very extraordinary and since it lasted for a while it gave me an illusion that the Albedo itself was rigidly changed. However S Meridiani recovered within a few days. This time the situation was similar. The formation of the Aryn's Nails look “stout.”

In 1956, the dust above S Meridiani started on 29 August (while the great dust storm was on 20 August). It kept similar deformation on 30 August, but on 31 August S Meridiani recovered though quite faint. On 3 September, however, a

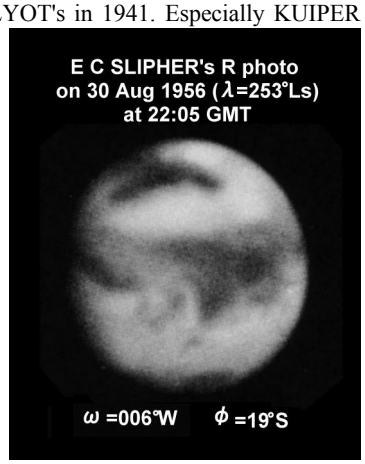
small disturbance revived. These are seen from the images by SLIPHER in *"The photographic Story of Mars"*(1962). These must have been taken thru the South Africa expedition of the Lowell Observatory (at Bloemfontein) since these are shot at 21h~22h GMT.

Now let me list up the observations made this time on 30 October in the US:

Table: *Observations of the Dust over S Meridiani on 30 Oct 2005 (λ=315°Ls)*

Time	LCM	Observers
03:47 GMT	ω=277°W	OWENS (*LOw*)
05:56 GMT	ω=307°W	BATES (*DBt*)
06:19 GMT	ω=314°W	FLANAGAN (*WFl*)
06:27 GMT	ω=316°W	SHERROD (*CSr*)
06:32 GMT	ω=317°W	FLANAGAN (*WFl*)
06:46 GMT	ω=320°W	SHERROD (*CSr*)
06:49 GMT	ω=321°W	FLANAGAN (*WFl*)
07:02 GMT	ω=324°W	PHILLIPS (*JPh*)
07:03 GMT	ω=324°W	MELILLO (*FMl*)
07:46 GMT	ω=335°W	Tim PARKER (*TPk*)
07:58 GMT	ω=338°W	Tim PARKER (*TPk*)
08:05 GMT	ω=339°W	MELILLO (*FMl*)
08:10 GMT	ω=340°W	BHANKITSIRI (*RBe*)
08:44 GMT	ω=349°W	Tim PARKER (*TPk*)
08:45 GMT	ω=349°W	ROSOLINA (*MRs*)
09:12 GMT	ω=359°W	MELILLO (*FMl*)
09:58 GMT	ω=007°W	MOORE (*DMr*)
10:00 GMT	ω=007°W	SHEEHAN (*WSh*)
10:46 GMT	ω=018°W	MOORE (*DMr*)
11:05 GMT	ω=023°W	MOORE (*DMr*)

S Meridiani on the day shows the following characteristics: The northern part of the left-hand-side nail is still dark while its southern part vanishes. On the other hand, the right-hand-side nail vanishes on the north, but its southern part quite remains dark (see the image by *JPh* here cited). Note also Valkyrii Fontis were quite dark (the name *Valkyrii Fontis* was given by EBISAWA around 1956 based on the mythology employed in WAGNER's "*Der Ring des Nibelungen.*" The marking was apparent in SLIPHER's photos in 1939 and in LYOT's in 1941. Especially KUIPER drew the fountains in 1954). In the 1956 case of disturbance also, the nail at the right-hand-side was strangely pushed out (→).



I should like to note further that *a)* the dust was caught quite near the morning terminator by *LOw*, *b)* all of *WFl*'s images as well as *JPh*'s show well the global airborne dust or dust haze, *c) TPk*'s and *DMr*'s images prove that there exists a *wine-coloured* area especially at Noachis [according to MURAKAMI (*Mk*), *private communication*, its position is around (Ω=350°W~360°W, Φ=30°S ~40°S). We should however note that *DMr*'s images further show that a broad wine-coloured ring *encircles* the dusty area from Meridiani S to Margaritifer S], *d) WSh*'s case is a rare case where the half covered Meridiani S was drawn (he was away already from the Lick, and made this drawing from Minnesota by the use of a 28cm SCT). We shall come back to *c)* later again.

The present case also, AKUTSU (*Ak*)'s good images on 1 November (λ=317°Ls) at ω=007°W, 017°W & 037°W show that Meridiani S recovered though yet faint (it must have been still disturbed on 31 October though few good images of Meridiani S present). On 2 November, there was no good image while on 3 November KUMAMORI (*Km*)'s image at ω=346°W, and LAU (*CLa*)'s at ω=008°W show the recovery of S Meridiani. So the phenomenon on 30 October was such that the dust above did not uniformly cover but partially disturbed and produced mottled markings, while it turned out the present dust had never influenced the albedo features of S Meridiani.

It may appear what I am saying looks mediocre, but I don't think so. In the case of 1956, FINSEN observed for three hours on 29 August and two hours on 30 August, and furthermore there was made not so much difference in abnormality between the two days, and hence we could have supposed that the albedo features were much influenced considering that the dust must have worked internally and deposited or washed out. It could have been one of the seven wonders of Mars until the recent discovery have been made that the dust patch is rather immobile during the day.

Thus the marking of S Meridiani is "stout" against disturbances, and different from the area of M Serpentis as well as the area of Nodus Laocoontis; the later belonging nowadays to a bright region. The latter is a lower place and so it may be easy to be covered by sands, while we should note the area of M Serpentis is located at a higher place than the area of S Meridiani. We should however say that almost all markings on Mars must be "stout" against the dust activity: If not, we have never had the almost permanent markings which are familiar from the times of Huygens. And so S Meridiani is quite common. As one of the famous areas to be subject to the secular changes, the Solis L area should be first counted.

I should add that the configuration of the dust on Meridiani S almost rigid whole day on 30 October, while *DMr*'s image may suggest that the southern part of the

lhs nail a bit recovered. However during the one hour periods when *TPk* and *DMr* were on the alert no change was checked.

I am now in a position to return to the precious observations in point *c)*: The fact that, on *DMr*'s images, a wine-coloured ring surrounds the dusty area should imply that there was a ring of the area where the airs were descending to supply the ascending airs at the dusty areas. Especially it was strong inside Noachis, as shown in B. This does not necessarily imply a de-concentration of morning water vapour just like the Canon Lau phenomenon (#279 & #290) but imply a vacancy of the air-borne dust, and so it is visible rather in the day time.

As analysed in 2003 Note #01 in CMO #288, when a conspicuous dust disturbance occurred at M Serpentis on 4 July 2003, the area of Meridiani S turned out to be in a chocolate colour (thicker than the wine colour) implying that there arose a high-pressure part around Meridiani S since the preceding area needed an ascending air. I think the present case is also similar to the July 2003 case.

As I suppose, such cases will be found frequently in the future if the RGB decompositions are pertinently used.

On the following 31 Oct, the dust over the Margaritifer S was still strong (this was already observable from Japan), and an excellent image of HEFFNER (*RHf*) at ω=055°W on 31 October shows a darker spot near the terminator. According to *Mk*, the longitude and latitude of the spot are (Ω=350°W, Φ=30°S~40°S) so that this belongs to the wine-coloured area observed by *TPk* and *DMr* on the preceding day. In fact, previously on the day VALIMBERTI (*MVl*) showed it more inside at ω=041°W as a wine-coloured area, and *Km* at ω=032°W as a circum-dusty ring. Also on 1 November some images still suggest a weak presence of the wine-coloured area in Noachis.

シヌス・メリディアニは昔私どもが子供の頃は「アリュンの爪」と稱して長く馴染みのある箇所であるが、ここが半ば消えてしまうというのは珍しい事である。黄塵に侵されるというのがもともとそう屢々ではない上に、2005年のように適當に黄塵に隠れるというのはまことに珍しい。

> アリュンの爪という俗稱を誰が言い出したのか私は寡聞にして知らないが、Arynの名はスキアパレッリが1877-1878年の火星圖でFastigium Aryn (アリュンの尖り)と命名したことによる。尖りは爪の間の"陸地"のことで、アラビア海の想像上の島、アラビアでは經度上の原點とされていたことに依る。1881-1882年の火星圖ではアリュンの岬(プロモントリウム)と呼んでいる。シヌス・メリディアニという呼稱は1924年のアントニアディの命名で、これは暗部に對應する。スキアパレッリでは全體がシヌス・サバエウスであった、寧ろ1877年の火星圖ではシヌス・メリディアニの處にサバエウス・シヌスとある。

昔、蔡章獻さんがアリュンの爪全體が見えないことがあると仰有って、それも一度ならずの様な感じであったから、案外このことは起こっているのかも知れないが、殘念乍ら、筆者の場合、長い年月の間一度も目撃していないと言ってよい。僅かに1973年の大黄雲の時、シヌス・メリディアニに懸かる雲を捕らえている(ソリス・ラクス黄塵が飛び火して17,18Octにはシヌス・メリディアニに黄塵が立った事は#328 Note(11)で述べた)が、遙か夕方であった。2005年の場合も矢張りソリス・ラクス黄塵域から獨立して、28Octに起こったアラムでのバーストの影響下にある黄塵であったが、これが見られたのは矢張りアメリカ大陸だけで、私は殘念ながら返國した後であった。

今回によく似たケースは1956年の大黄雲の際に起きている。然し、これも歐羅巴、南阿で見られたもので、日本からは無理であった。ただ、これはフィンセン(ヨハネスブルク)の畫像で見て非常に印象深く殘っていて、今回の稿はその影響による。

つまり、黄雲からはみ出した部分が異常に見え、可成り持續するので下のアルベドに變化を齎したかのような錯覺を持ったことによるが、黄塵によるアルベドの異動というのが起こりえる例たり得るかと思ったからである。實際は二日程してもとの形に戻った。今回も然りであり、シヌス・メリディアニの形状は頑強であるように思う。

1956年の場合29Augに發生したようである。30Augにはほぼ同じ形状を保つが、31Augには未だ淡いながらもとの形状に戻っている。但し3Septにはまた少し内部擾亂がある。これはスライファーの*"The photographic Story of Mars"*(1962年)で示されている。この写真はローエル天文臺の南阿遠征(ブルームフォンテイン)で撮られていることは21h~22hGMT臺であることから判る。英文の部に一葉引用。

扨て、今回の場合であるが、觀測は英文の部に枚擧した様に行われている。

この時のシヌス・メリディアニの特徴は左側の爪は北部が出ているが、南部は消えていること、逆に右側の爪は北部が消えて、南部が強く殘っている事である(明確な像は内部に入ってきてJPh氏の像であろうか。英文の部に引用)。またワルキュリイ・フォンティス(海老澤氏命名、1956年頃から知られている。複數形である)が比較的に濃く出ている。1956年にも右の爪は比較的殘り南部が飛び出しのようになっていた爲に異様であった。

上の觀測で特筆すべきは、a) LOw氏の像はシヌス・メリディアニ黄塵を可成り朝方で捉えていること、b) WFl氏の何れの像もまたJPh氏の像も全體に浮遊黄塵に満ちていることを示していること、c) TPk氏の像とDMr氏の像にはノアキスにワインカラーの領域が出來ていること[村上(Mk)氏の計測では、最も著しい箇所の位置は(Ω=350°W~360°W、Φ=30°S~40°S)である。尚、DMr氏の像はこれがシヌス・メリディアニからマルガリティフェル・シヌスに亙る黄雲領域を囲むように出來ているを示す]、d) WSh氏のスケッチは眼視でシヌス・メリディアニ上の黄雲を捉えた希有な例であること等である(WSh氏もリックを引き揚げた後で、ミネソタの自宅で28cmSCTを使っている)。特にc)については後で採り上げる。

今回の例も、(31Octは良像が無いものの、回復は未だかと考えられるのに對し) 1Novには阿久津(Ak)氏のω=007°W、017°W、037°Wの良像があり、シヌス・メリディアニは(やや弱いながら)回復していること(更に2Novにも良像がないが、3Novでは熊森(Km)氏のω=346°W、劉(CLa)氏のω=008°Wでは殆ど回復していること)から、30Octの現象は表面のアルベド要素に何の影響も齎されないシヌス・メリディアニの上空での現象であり、それも一様に覆うのではなく部分的に斑(まだら)状に覆っている例であるということである。

至極當然な事を言っている様に聞こえるかも知れないが、私はそうは思っていない。1956年のフィンセンの場合、29Augには三時間、30Augには二時間、シヌス・メリディアニの異常な形に變化が無く、更に29Augと30Augとの形状差も僅少あった爲に、黄雲の動きが無い筈が無いと考えると、アルベドに影響が出たのではないかと、思えたからである。黄雲の形が昼間に然程變化しないというのは極最近の發見であって、それまでは異常な暗色模様の形状が黄雲下で動かないというのは七不思議の一つであった。

シヌス・メリディアニの領域は暗色模様の成り立ちが可成り頑強で、マレ・セルペンティス領域や嘗てのノドゥス･ラオコーンティスの邊りの暗色模様の成り立ちとは異なるということである。後者は低地であるから、やや納得するが、シヌス・メリディアニ領域は變化の多いマレ・セルペンティス領域より低地である點では面白い。實は火星の模様の大半は頑強であって、その爲に火星模様は半永久的に大きな變化がない譯であるから、シヌス・メリディアニのアルベドの頑強さが常態であるとも言える。高地で永年變化が強い例はソリス・ラクス領域であることは有名である。

尚、30Octの昼の間、シヌス・メリディアニ上の部分的な黄雲配置が殆ど變化しないことも注意する。ただ、DMrの像では他の像より左側の爪の南側の暗部が少し回復しているようには見える。ただ、TPk氏、DMr氏の場合、それぞれ一時間の間には變化が見られない。

扨て、c)の貴重な結果の事である。DMr氏の像からシヌス・メリディアニからマルガリティフェル・シヌスを囲むようにワインカラーが出ていることは、黄雲活動を取り囲むように下降氣流の環が出來ているからだと思われる。この部分はB光では濃く出る。ただ、これは水蒸気の脱落というより黄雲の希釋化であろう。その爲、劉現象と違って朝方だけに限らない。

#288の2003Note#01で分析したように4July2003にマレ・セルペンティスに黄塵が立ったとき、シヌス・メリディアニの邊りが顕著にチョコレート色(ワインカラーよりも濃い)になった譯であるが、これはマレ・セルペンティス邊りの上昇氣流を助けるために後方では高氣壓部が出來ていたからと考えられるのである。今回の例もこれに近いであろう。特にノアキス中部で強く供給が起こっている。こうした例はこれからRGBのうまい配合のもとに幾つか見附かるであろうと思われる。

31Octにも未だマルガリティフェル・シヌス上の黄雲は強い形を示しているが(これは既に日本で見られていた)、この日のヘフナー(RHf)氏の

ω=055°Wの良像には、ノアキスのワインカラー部が夕縁で暗斑のように浮き出ている。暗斑の位置はMk氏の試算によると、(Ω=350°W、Φ=30°S~40°S)であるから、DMr氏の環に含まれる。これは先立つヴァリムベルティ(MVl)氏のω=041°Wにはもっと内側で大きく明らかであり、Km氏のω=032°Wでも環状に出ていると思う。1Novにも殘っているようで、幾つかの像に出ている。 □

Forthcoming 2007/2008 Mars (7)

The Seasons of Dusts 黄雲の季節来たる

Masatsugu MINAMI 南 政次(*Mn*)

ON the coming 1st day of June 2007, the Martian season reaches λ=249°Ls. It was at λ=250°Ls that the Noachis great dust storm spectacularly broke out in 1956, and so we should say the season of great dust storms has arrived. Note however that since then no Noachis dust storm has been seen at the same season, and if there arose a great dust storm it has chosen quite a different time (so if we borrow Don PARKER (*DPk*)'s words, it is quite natural for Mars to foil us). Even then we have been obliged to watch the place at the season and this time also we can not help watching. We cannot say it has meaningless to check whether it will occur or not. The dust activity must be a kind of catastrophe which arises when a consistence of a certain income and outgo is broken, but its catastrophe and feedback must not simply follow the solar calendar since Mars is not dead as the Moon. However the season of Mars is not irregular as Jupiter's, and so it does not imply to make any wrong if we say the season of dusts has set in.

On the other hand, this apparition proceeds very slowly until the opposition time, and on 1 June the apparent diameter δ is only 5.7". One may be afraid that, in addition to the low altitude of the planet in the morning sky, such a small diameter will make it impossible to find and chase the dust cloud. However the fact that such images as were obtained by BUDA (*SBd*) and HEFFNER (*RHf*) from 23 April (λ=225°Ls) to 30 April (λ=229°Ls) when δ=5.2"~5.3" clearly show the dark area of M Serpentis tells us easily that such a bar-like dust as observed in 1956 and 1971 cannot be missed to be recorded even when δ =5.7". By naked eyes it may be hard in general to detect the dust disturbance if the diameter δ is under 10", but ANTONIADI once detected the disappearance of S Meridiani because of the dust covering when δ=7.5". This was of course made by the use of the Grande Lunette at Meudon, but it must be doubtless such an outstanding case will be caught by the present-day ccd technique, and even by the naked eyes it may be possible since the place is very characteristic if used a medium sized telescope. This discovery was just said made in January 1925 in his book *La Planète Mars,* p92, but at p126 he describes that the Lunette showed him as if S Margaritifer was protruding from the terminator due to an orange cloud mass over there on 18 Jan 1925, and so the cloud on Meridiani S must have been related with this. Then the season must have been around λ=335°Ls. In 2007 this comes at the end of October with δ=11.4". In 2005, S Meridiani was nearly covered by a dust cloud on 30 Oct 2005 (λ=315°Ls) (see the preceding article). In 2007 the season will come on 17 Sept with δ=8.9"

The reason why we should not disregard the dust appearance even when the angular diameter is tiny is because the early dust disturbance may cause or have a relation with a further big disturbance later. It is well known that in 1971, the big 1971b great dust storm followed the preceding smaller 1971a dust. More serious case was in 1973: In 1973 the great dust storm occurred at λ=300°Ls and it is believed that this dust was given rise to by the temporary large dark marking at Daedalia which was extraordinary and appeared in early 1973 or before. Apparently this temporary dark marking must have been caused by another preceding dust disturbance. Unfortunately this dust disturbance was not identified. In the case of Shotaro MIYAMOTO, Kwasan Observatory, he noticed this secular change on 1 July 1973 (λ=235°Ls) when δ=10.4", but not its original dust. MIYAMOTO started the year from the time when δ=7.1" (λ=195°Ls), and this was too late (unfortunately too late, because he otherwise started in 1969 and 1971 from δ=4.6").

The rare example which we witnessed when the dark marking was produced by the dust disturbance is the case at M Serpentis in July 2003 (λ=215°Ls): The dark marking readily showed up as the dust subsided. In the case of Daedalia in 1973, we can suppose a much brighter dust must have occurred around there, and so it could not have been missed even if the diameter was smaller. By the same token, at present the darkened area of M Serpentis is a live spot to be watched as well as Deucalionis R.

So we here, to give a guiding table, pick out some of data accumulated by the forerunners as a function of the coming seasons.

In ANTONIADI's book, there is shown a figure showing his observations in 1909 on 23, ~27 August by the use of a 22cm spec (p40): The figure shows a vast yellow cloud which covers the northern hemisphere from the area of Trivium Charontis to the morning side. The season was around λ=258°Ls~260°Ls. This corresponds to mid-June 2007. ANTONIADI also writes that M Cimmerium is covered often by the yellow clouds which deform its shape or make it disappear, and among several examples, he picked out the case on 22, & 23 Aug 1909 when it was considerably pale, and so this must have been an influence of the dust cloud just mentioned (p174). He also writes that in August 1909 he certified (with QUÉNISSET) that Syrtis Mj was also virtually invisible near the CM covered by the lemon yellow cloud (p86) by the use of a 24 cm at Juvisy. (It was from 20 September 1909 that ANTONIADI used the 83cm refractor at Meudon.) At the beginning of September 1909, he also certified that Solis L disappeared because of a dust covering (p142), and this was also the influence of the same dust event: This must have been just before λ=270°Ls. In 2007, the period λ=260°Ls ~270°Ls corresponds to the one from the end of June to the beginning of July.

The moment λ=260°Ls was the one that the great dust storm was entrained at Noachis in 1971 (1971b). This case also has never repeated since then, but as the dust season it is well matured. In 2007 it occurs in mid-June. λ=260°Ls is realised on 18 June, and can be seen in Europe in the morning, and then in America. The area will come into sight from Oceania-Orient around from 4 July (λ=270°Ls). Instead in mid July, the area of M Cimmerium will face towards us.

When the planet Mars was most approaching the Earth in 1924, ANTONIADI observed consecutively five days from 10 to 14 October 1924 at Meudon, and made several observing notes. Among them, he noted on 12 October (with QUÉNISSET) that the coming Syrtis Mj was not perceived since it was covered by a greyish yellow cloud patch (p86). The season might have been around λ=277°Ls, and so we should a bit remember this in mid-July 2007.

The aforementioned ANTONIADI's description of the yellow clouds at M Cimmerium was mainly concerned with the case during the period from 10 Oct to 31 Oct in 1894: Since it was seen at the opposition time, there were joined a lot of observers including FLAMMARION. BARNARD at Mt Hamilton was another. BARNARD suspected the presence of the dust from September, and he reported it continued until 28 Oct on which day M Cimmerium quite recovered. His drawing on 22 October shows a queer aspect of the region. Here we employ the date 10 Oct according to ANTONIADI, while in Tome II of FLAMMARION's book: *The Planète Mars,* there is shown a fine drawing by QUÉNISSET made on 20 September 1894 in which a dust core is shown to the south of the faint M Sirenum and this might have been related with the Oct dust. This was made by a use of 17cm refractor, but amazingly QUÉNISSET detected the spc to have been split into two (this was observed by BARNARD on 7 October by the big Lick refractor). The season was around λ=285°Ls. The period 10 Oct ~ 28 Oct might have been corresponded to λ=298°Ls ~ 308°Ls, and in 2007 the period will be realised from 19 Aug (δ=7.6") to 5 Sept (δ=8.5").

Incidentally this Oct 1894 cloud was also observed by LOWELL: In Chap III of his book "*Mars*" (1896), he noted "*Toward the end of October, a strange,..., a distressing phenomenon took place.*" However his conclusion is much stranger: "*This was not a case of obscuration; for in the first place it was general, and in the second place the coast-lines were not obliterated. The change, therefore, was not due to clouds or mist*"

(p120/121). LOWELL started earlier from the time when the δ was 8.4", but his observations were made just intermittently, and for example, from September to October he was away from Flagstaff but in Boston. So he must have been late in grasping the concept of the yellow cloud. On the other hand it should be noted that he described "*the coast-lines were not obliterated.*" This implies we are given a warning not to process excessively any ccd image to describe the yellow clouds.

As mentioned, the great dust storm in 1973 occurred at λ=300°Ls. The present 2007 year the season will visit around 23 August with δ=7.8". Because Daedalia has been bright ever since except for a presence of Phasis, no serious dust has been observed, but in 1973, there were known several small dusts from the time MIYAMOTO started until λ=300°Ls, and also in 2005 there occurred a Solis L active dust on 21 Oct 2005 at λ=310°Ls we should be careful.

After λ=300°Ls, we must be attentive to the so-called cross-equatorial dust which originated from the northern hemisphere. As noted in CMO #289,

http://homepage3.nifty.com/~cmomn3/289Note02_03/index.htm

the second period of the north originated dusts is around λ=300°Ls~350°Ls (while the first one is around λ=210°Ls ~230°Ls), and it is possible for some of the dusts to propagate to the southern hemisphere. The October 2005 Solis L dust at λ=310°Ls belongs to this kind, as well as the December 2003 dust detected by *DPk* at λ=315°Ls. So after λ=300°Ls, that is, after mid August in 2007, we should be careful to the dust from the area of M Acidalium as well as from the area of Utopia.

Now there is known a great dust storm in 1924 which was similar to the Noachis dust storms in 1956 and 1971: It was Dr McKIM (*RMk*) who unearthed some drawings of Rev PHILLIPS and others on 9~10 December 1924 showing a dust germ which broke Hellespontus near the CM. The season was around λ=313°Ls with a diameter of 10", and the dust then developed to a great dust storm. In ANTONIADI's book there is shown a drawing on 31 December 1924 where the surface was vastly covered by the yellow cloud except for the shadowy crest of Olympus Mons. This was at λ=325°Ls, and so it lasted long. In 2007, at λ=310°Ls δ is still under 8", and as stated comes around 8 September. On the other hand λ=325°Ls implies the beginning of October 2007.

In ANTONIADI's book at p41, there is a chart where it is shown there was a large dust storm on the southern hemisphere in 1911 from 3 November to 23 December. The season was around from λ=325°Ls ~ 355°Ls with

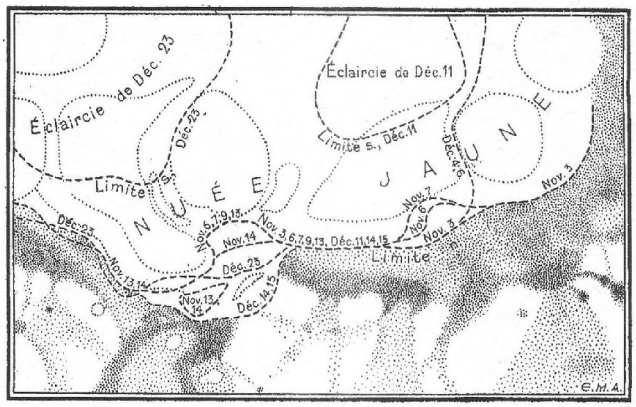
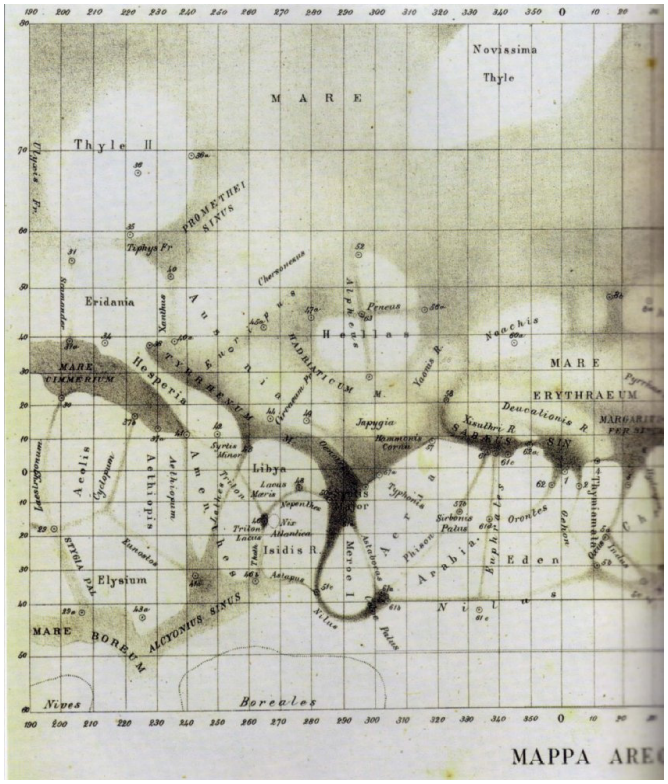


Fig. 10. — Immense voile jaune orangé, observé sur Mars du 3 novembre au 23 décembre 1911.
(Lunette de 0m83.)

the diameter around 17" before opposition. The dust on 3 November was already large and so it started earlier but not trapped because of no observation in Asia (the systematic Mars observation in Japan was after 1920). The season corresponds in 2007 to the period from the beginning of October to the end of November. The diameter is large enough and so cannot be missed if happens.

Incidentally the present writer (*Mn*) is of the opinion that the southern hemisphere in 1879 was also largely covered by a big yellow cloud as in 1911. This belief is based on the fact that SCHIAPARELLI faintly drew the southern hemisphere compared with the northern coasts of the central dark markings on his Mars Map in 1879 (see Tome I of FLAMMARION's book at p332- p333), and there is also at least one drawing where the southern hemisphere is made very blank. In 1879 the planet was at opposition on 12 November (quite similar to the 2005 case: On 11 November, he spotted the shining Olympus Mons before noon), and at the apparition he observed from September 1879 to March 1880, and produced the Map based on 30 complete drawings and 104 numbers of partial sketches. Here (next page) a part of the Map is copied from the Mimesis Edition of "*La Vita sul Pianeta Marte*" of SCHIAPARELLI (which book was given to *Nj* at Brera). The strange shape of the S Sabaeus and the dusty Deucalionis R must have been based on his draw-



ing on 28 November, and so the dust phenomenon was going on at the season λ=335°Ls and so the situation was quite similar to the case in 1911 (including the fact that the date of the start is unknown). 1911 = 1879 +15+17.

We have thus picked out some of interesting dust phenomena on the southern hemisphere, and eventually the season of dust is revealed to last without a break this year. However, as we have stated first, any dust occurrence don't necessarily follow the rut left by the preceding dusts, and so a list is a list, and there are naturally Martian years where no big dust disturbance occurs. Originally the dusts frequently occur when the balance of income and outgo is broken, but when the energy-balance is kept long, the big catastrophe is difficult to occur (as around in 1988). But recently there seem to be observed occasional changes in global albedo, and so the balance of energy looks a bit excessive in the red or black. So we should be careful this year.

To sum up, here is tabulated above-cited cases of possible dust disturbances in 2007, but not at all intended to be perfect.

A	*B*	*C*	*D*	*E*
λ=250°Ls	Noachis	Aug 1956	b. June	AO
λ=258°Ls	Elysium	Aug 1909	m. June	AO
λ=260°Ls	Noachis	Sept 1971	18 June	E,A
λ=277°Ls	Syrtis Mj	Oct 1924	m. July	E
λ=285°Ls	Phaethontis	Sept 1894	29 July	AO
λ=298°Ls	M Cimmerium	Oct 1894	Aug-Sept	*All*
λ=300°Ls	Solis L	Oct 1973	23 Aug	A
λ=310°Ls	Solis L	Oct 2005	b. Sept	AO
λ=313°Ls	Noachis	Dec 1924	13 Sept	AO
λ=315°Ls	Chryse	Dec 2003	m. Sept	AO
λ=325°Ls	Southern H	Nov 1911	Oct-Nov	*All*
λ=330°Ls	Southern H	Nov 1879	Oct-Nov	*All*
λ=335°Ls	S Meridiani	Jan 1925	e. Oct	AO

A: The season when the dust started
B: The area where the dust started
C: The period when the dust started
D: Corresponding period in 2007
E: Possible terrestrial region where the corresponding area can be observed
Abbreviation: b.=beginning, m.=mid, e.=end of the month
AO: Asia-Oceania, E: Europe, A: American continents

六月1日で火星の季節はλ=249°Lsとなる。1956年のノアキス大黄雲が華々しく見られたのはλ=250°Lsであったから、その季節が到來したわけである。但し以後、同じ季節にノアキス大黄雲が起こった試しはなく、いつもスカタンで、出るときはとんでもないときに出る(唐那･派克氏の言葉を借りれば、火星はわれわれの裏を掻く)のであるが、機會があれば矢張り氣になって見るようにしてきたものである。起こっていないことをチェックするのも意味がないわけではない。黄雲活動は或る收支決算が崩れてカタストロフが起き、そこにフィードバックが働いて均衡へ向かうのであろうが、日捲(ひめくり)暦のようには事態が進まないのであろう。然し、太陽は規則的にDsを刻み、(大)黄雲の季節に入ることは確かである。

一方今回は接近の速さが鈍く六月1日でδ＝5.7"にしか過ぎないし、火星の高度も赤道を過ぎた許りである。こんなに小さく條件が悪くてはとても黄雲など無理であろうと考える向きもあるかも知れぬが、23April(λ=225°Ls)から30April (λ=229°Ls)のδ=5.2"~5.3"のブダ(SBd)氏やヘフナー(RHf)氏の畫像をGalleryで見て貰えば分かるように、もし1956年や1971年の様な明るいノアキス黄雲が出れば確實にccdで捉えられる筈である。肉眼ではδ=10"以下では甚だ難しいが、アントニアディの本では

(83cmの大望遠鏡ではあるけれども)δ=7.5"のとき黄雲でシヌス・メリディアニが見えなくなったことを眼視で確認している。これは現在ならccdでは確實に捉えられるし、特徴のあるところだけにある程度は中口徑の眼視でも可能であろう。これは1925年一月とあるだけで期日がハッキリしないが、18Jan1925にはマルガリティフェル・シヌスが朝方の縁(terminateur)にある時その上にオレンジ色の黄雲の突起が見えていたという記述があるから(p126)、これと關係があるかも知れない。すると凡そλ=335°Lsぐらいかと思われる。そうすると2007年の場合では十月下旬ということになるδ=11.4"にはなっている。因(ちな)みに2005年にシヌス・メリディアニが黄塵で消失しかかったのは30Oct 2005(λ=315°Ls)頃であった(本號前項參照)。

視直徑が小さいからといって黄雲検出を疎(おろそ)かにしない方がいいと思われるのは、1973年の例があるからである。1973年の大黄雲はλ=300°Lsに起こったのであるが、これはダエダリアの新暗斑に依る温度上昇があった爲と考えられる。ところが逆にダエダリアの異常暗斑は黄塵の働きで起こったと考えられるのに、これがいつ起こったか確認されていないのである。1971年の黄雲中に起こった可能性もあるが、1973年の早期であった可能性もある。この暗斑を確認したのは宮本正太郎氏の1July1973(λ=235°Ls)等の觀測が早いと思うが、この時δ=10.4"、宮本氏の1973年最初の觀測はδ=7.1"であったから、早いとは言えないのである。季節はλ=195°Lsであったから、宮本氏の感覚では未だ黄雲の季節前と考えていたのであろう(1969年と1971年には宮本氏はδ=4.6"から開始されているのであるが、この時はδ=7"頃までどうということはなかったのかも知れない)。然し、2001年のような例もあるから、惜しいことであった。

黄塵によって模様が大きく濃化する例は2003年七月(λ=215°Ls)の觀測例が著しいし、これは希有な例であった。これはほぼ一週間で沈静化したにも拘わらずの大きな變化であった。濃化を起こす大黄塵は一日にして起こり短期間で黄雲の殘滓は無くなる場合もあるのである。ダエダリアの濃化のような場合には相當明るい黄塵が立ったであろうから、視直徑が小さくても検出は可能であろうし、濃化は次の黄雲を意味するから重要である(その意味で2003年の濃化のため現在でもノアキス、デウカリニオス・レギオは要注意である)。

そこで季節を追って過去のデータを少し追ってみる。アントニアディの本には1909年23~27Augに22cm反射で觀測した圖があるが(p.40)、これにはトリウィウム・カロンティス邊りを含んで朝方北半球が黄雲で覆われている。これは季節ではλ=258°Ls~260°Lsぐらいで、今年なら六月中旬である。アントニアディはマレ・キムメリウムの項でこの細長い海は屢々黄雲に覆われるとして幾つか例を擧げている中に彼の觀測では22、23Aug1909にマレ・キムメリウムが可成りpâle(淡い、冴えない)と書いているから、この黄雲の影響であろう。同じく1909年八月とあるから同じ頃と思うが、Juvisyの24cmでケニッセと一緒に觀測してシュルティス・マイヨルが中央で見えないという経験をしていて、この時はレモンイエローの黄雲であったと記している(p86)。1909年の九月初めにはソリス・ラクスが黄雲で消えたとあるから(p142)これも關係があるかも知れない。λ=270°Ls前であろう。今年ならλ=260°Ls~270°Lsは六月下旬から七月上旬ということになる。なお、アントニアディがムードンの83cn屈折で開始するのは九月20日からであったと思う。

λ=260°Lsといえば1971年のノアキス大黄雲の發生時期である。この黄雲も二度と見られないが、六月中旬に當たる。λ=260°Lsは18Juneに起こり、ノアキスは歐羅巴→美國で朝方見られる。日本からこの邊りが見え始めるのは七月4日(λ=270°Ls)以降であろう。その替わり六月中旬には日本からマレ・キムメリウムが見えている。

1924年の10~14Octの五日間は晴天に恵まれたのかアントニアディが連續して觀測した期間で、接近時だからいろんな記述があるのだが、その中に12Octシュルティス・マイヨルが朝方現れるときに「灰黄色の塊で覆われる」というのがある(ケニッセと一緒に確認)。南アウソニアが赤銅色になったようでもある。λ=277°Lsぐらいであろう。一寸注意したい。今年なら七月の中旬である。ただ、ιは43°と深い。

先述のアントニアディのマレ・キムメリウムの黄雲については1894年の例が詳しい。10Oct~31Octに見られたものでフラマリオンなど多數が觀測し

ている。ハミルトン山のバーナードもその一人で、バーナードは九月頃からウスウス感じていたようで、回復したのは28Octであったと當時の新聞報導で述べている。22Octのこの邊りの様子は珍奇である。ここではアントニアディに従って10Octを採用しておくが、フラマリオンの本の第二巻のp236にはケニッセの17cmでの20Sept1894のスケッチがあり、これには淡いマレ・シレヌムの南にコアのようなものがあり、黄塵の可能性がある(シーイングがよかったらしいが、バーナードが7Octに見た割れた南極冠を描いているから、鋭眼であったのであろう)。これが源かどうかは全く分からないが、この時點はλ=285°Ls邊りである。10Oct~28Octを採れば、λ=298°Ls ~ 308°Lsぐらいであろうと思う。今年なら19Aug (δ=7.6") ~ 5Sept (δ=8.5")邊りであろう。

尚、この黄雲は同時にローエルも見ていたようで、1869年の著書"*Mars*"の第三章で十月後半マレ・キムメリウムから始まりマレ・シレヌムへと"奇妙な觀測上困惑する"現象が進行するという記述があるが(p120)、以前にも觸れた通り、彼は黄雲とは思っていない様で、こんなものは有り觸れたもので、またcoast-linesは消える事はなかったという觀測である。だいたいローエルは九月から十月にかけてボストンへ歸っているというていたらくで、13Octが最接近20Octが衝であるから、この時はフラグスタッフに戻っていたであろうが、カンが出來ていないというべきであろう。また、バーナードは黄雲について新聞發表をしているからか可成り挑戰的であるとも言える。尚、coast-lines云々は、ccdなどで強調處理するとこの種の黄雲は落とすだろうという警告にはなる。

1973年のソリス・ラクス大黄雲は前述のようにλ=300°Lsで、今年は23August邊りに相當するが、1973年以降パシスを遺すのみで、ダエダリアの暗斑は存在しないし、似た黄雲も起こっていない。今回も望み薄だが、ソリス・ラクス邊りは然し、1973年の宮本氏の觀測開始後もλ=300°Ls迄に幾つか小黄塵が知られているし、2005年にはλ=310°Lsでソリス・ラクスに強いコアが起こっているから、要注意である。

尚、λ=300°Lsに入ると、所謂北半球起源の黄雲が發生する。CMO#289等でも述べたことだが、

http://homepage3.nifty.com/~cmomn3/289Note02_03/index.htm

北半球起源の黄雲の第二期はλ=300°Ls~350°Lsにあって(第一期はλ=210°Ls~230°Ls)、その幾つかは南半球に傳播する可能性があるわけである。先の2005年のλ=310°Ls黄雲もこれに属すると考えられるし、2003年λ=315°Lsに唐那・派克(DPk)氏が見つけたクリュセ黄雲もこれであったと考えられる。從って、λ=300°Ls以降、詰まり今年の八月中旬以降はマレ・アキダリウム域・ウトピア域はいつも注意が拂われるべきということになる。

ところで、期間としては北半球起源の黄雲が激しい時ながら、1956年や1971年と同じ様なノアキス黄雲が知られているのが1924年である。これは理査・麥肯(RMk)氏の調査に依るのだが、1924年には矢張りヘッレスポントゥスを横切る黄雲が立ち大黄雲になったのである。この發生觀測についてはフィリップ師の9~10December1924の觀測が嚆矢とされ、RMk氏が實際に資料を持っている(ことはMemoir以前から伺っている)。季節はλ=313°Ls頃かと思われる。但し大接近の時ながら視直徑δは10秒台に落ちていたはずである。アントニアディの本には31Dec1924の雲海の上にオリュムプス・モンスの孤立した珍しいスケッチが出ている。λ=325°Lsである。λ=310°Lsは今年ではδは未だ8"になっていないが、何度も述べるように8Sept頃にやってくる。一方今年のλ=325°Lsは十月初めである。

アントニアディの本のp41には1911年の3Novから23Decまでの南半球を大きく覆う黄雲が存在したというチャートが出ている。これを英文の部で引用している。季節はほぼλ=325°Ls~355°Lsに亙ると思う。當時は對衝前でδは17"程あったと思うが、發生時期は捉えられていない。東洋に於ける觀測が未だ無かったからであろう(日本では1920年以降)。季節を今年に合わせると十月初旬から十一月末迄となる。視直徑も申し分なくなっているので、見逃されことはないであろう。

尚、筆者(Mn)は、1879年にも、これはスキアパレッリの火星圖で南半球が極端に淡く描かれていることから、同じ様な南半球の黄雲が出ていたと考えている。南半球が全く描かれていないスケッチもある。1879年は1911年の丁度三十二年前に當たり、大接近後の接近で南半球が好く見えた時期

である。1879年は12Novが對衝であったが(11Novには衝効果のオリュムプス・モンスをハッキリ描いている)、スキアパレッリは1879年九月から翌年の三月まで觀測し、三十葉の完全スケッチと百四枚の部分スケッチからこの火星圖を作った。圖は、フラマリオンの本の第一巻のp332-p333に載っているが、ここでは中島孝(Nj)氏がブレラから持ち帰った資料の中から左半分をコピーする。デウカリオニス・レギオの邊りが惚けてシヌス・サバエウスの形がおかしくなっているが、これは28Nov1879のスケッチからであると思う(スケッチはフラマリオンの本にある)。發生期日だけでなく季節も特定できないが、λ=335°Ls前後には黄雲が進行中であったことは確かで上の1911年と規模も事情もよく似ている。

以上、六月から衝迄、如何に黄雲の季節であるか見て來たが、殆ど休み無しというところである。然し、最初に述べたように、黄雲は必ずしも轍を踏まないし、閑かな年もある。しかし、もともとエネルギーの出し入れの收支のバランスが崩れたときに起こり、一回のカタストフでは平衡にならず繰り返すし、最近また均衡が崩れているようでもあるから、今年など注意することに越したことはない。

英文の部では以上を表にして掲げてある。但し完全なものではない。 □

便り
Letters to the Editor

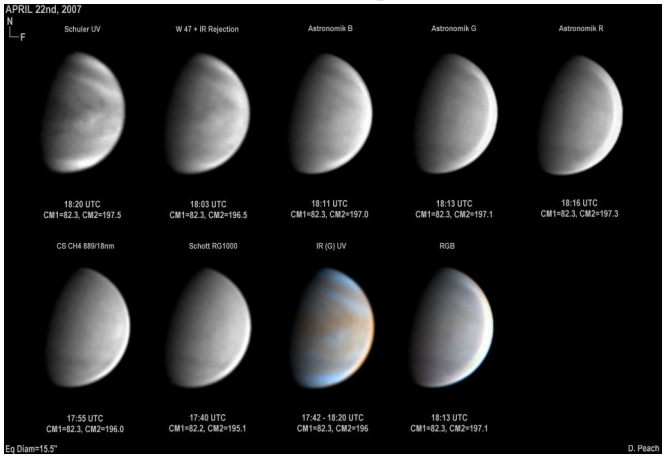
●・・・・・・・***Date: Tue, 24 Apr 2007 00:50:41 +0100***
Subject: Re: Jupiter 2007 April 19

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

I really take my hat off to you guys. Having tried myself the other morning it really is very tough going indeed - far more so than i anticipated. The drop in declination from -15 to -22 has really made a big difference to the image quality possible up at these latitudes..... Best Wishes

○・・・・・・・***Date: Wed, 25 Apr 2007 21:11:10 +0100***
Subject: Venus Images (April 22nd, 2007.)

Hi all, Here are some multispectral images from the



22nd. Good seeing. Features are seen in all wavelengths. The darker band near the south pole is interesting being most prominent in long wavelengths but hardly discernable in UV, indicating it likely resides deeper in the atmosphere. It is also faintly seen in visible filters.

Just as an experiment i also used my 889/18nm filter which gives a very similar view to the Schott 1 micron.

The features seen in visible i believe is down to modern cameras combined with strong contrast enhancement. I think only the most experienced visual observers could reliably detect features on Venus at the eyepiece in visible wavelengths. If i process my visible images very much as it appears in the eyepiece with regard to contrast, these features can not be seen. It certainly isnt down to any IR leaks with filters thats for sure.....

It would be interesting to hear the views of any experienced observers and what they have recorded on Venus recently in visible..... Best Wishes

○・・・・・・・***Date: Wed, 25 Apr 2007 22:46:28 +0100***
Subject: Venus Images (April 20th, 2007.)

Hi all, Here are some images from the 20th. Fair seeing. Only UV and IR images on this night. Best Wishes

○・・・・・・・***Date: Thu, 26 Apr 2007 00:15:59 +0100***
Subject: Re: Venus Images (April 22nd, 2007.)

Hi Christophe, Thanks. Clearly there is indeed a very sharp contrast increase from the typical B filters such as the Astronomik compared to the Schuler. Even compared to the W47 + ir block the Schuler has much better contrast. I think Arnaud remarks are probably correct regarding absorptions.

I think we need more people doing visible light imaging. This is hard to encourage, as most will do UV as thats where the most prominent cloud markings are, but i think the recent imagery from this elongation really shows that its very worthwhile doing visible light work as well as UV.

I'd be interested to know how much deeper the 1 micron images penetrate to compared to the UV features..... Best Wishes

○・・・・・・・***Date: Thu, 26 Apr 2007 19:31:19 +0100***
Subject: Re: Venus 18th april 2007

>with my 8" Newtonian I never saw visually any structures on Venus, the >contrast was to low. Maybe the diameter of my telescope is to small. On >the other side, I don't have good colour filters, just an old cheep >Baader Filter set for visual Observers.

I have never observed Venus visually with any seriousness. I've seen markings in the W47 filter visually years ago using a 30cm telescope but never without a filter (but have never taken any time to look at Venus without a filter before so maybe i will in the near future!)

It seems explaining the markings we have recorded in

visible wavelengths doesnt seem to have a straightforward explanation (especially after reading the comments of Dr. Markiewicz.)

There have been times in the past when distinct markings have been seen on Venus by visual observers using no filters at all, and even some rare photos showing white light markings, so i think there is little doubt that markings can sometimes be clearly recorded in visible light. As to the definite causes and processes which allow this, this remians a matter for debate! Best Wishes

○・・・・・・・***Date: Sun, 6 May 2007 20:22:08 +0100***
Subject: Venus Images (May 2nd, 2007.)

Hi All, Here are some images from the 2nd. Fair seeing. Note the classic "Y" marking seen in the 1 micron and 780nm images. Very differnt markings in UV with a bright southern polar band surrounding a brilliant SPC (rather reminds me of Mars!) The narrow 656nm image looks featureless.

I wonder how much deeper into the atmosphere these IR images are seeing than the UV? Best Wishes

○・・・・・・・***Date: Sat, 12 May 2007 23:09:06 +0100***
Subject: Reworked Jupiter movie & map.

Hi all, I decided to completely re work my 2005 Jupiter map and movie. The result was a considerable improvement in smoothness of the movie and map:

http://www.damianpeach.com/images/barbados2005/20050425rotationdp.wmv

http://www.damianpeach.com/images/barbados2005/20050425-26map_smooth.jpg

Fascinating to see how much things have changed in two years..... Best Wishes

○・・・・・・・***Date: Sun, 13 May 2007 18:54:24 +0100***
Subject: Mars Projection Map 2005

Dear Masatsugu, I have included a link to a projection map of Mars made from some of my 2005 images.

http://www.damianpeach.com/images/mars/mars_octnov2005dp.jpg

I look forward to hopefully sending you many images of Mars during the 2007 season. Best Wishes

○・・・・・・・***Date: Mon, 14 May 2007 19:09:00 +0100***
Subject: Mars 2005: The Movie.

Hi all, I spent all day today constructing a Mars rotation movie from my 2005 imagery. Here is the result (click on the Mars image at top of the page.)

http://www.damianpeach.com/mars05.htm

The images are from Oct-Nov 2005, but the phase/tilt/SPC size are for June 2005 (i liked this period better as Mars has a nice phase to it giving a nicer presetation.) Best Wishes

○・・・・・・・***Date: Mon, 14 May 2007 23:01:54 +0100***
Subject: Annotated Mars Map 2005

Hi all, I've just finished a detailed labeled Mars map that imagers and observers may find useful. Some of the older maps ive often been told people find rather confusing as the features have changed significantly since then, so ive produced a modern up to date version with all the features labled with the Albedo detail as it appears today. I've also added the lander locations as well:

http://www.damianpeach.com/images/mars/mars_2005dp_labeled.jpg

Best Wishes

○・・・・・・・***Date: Tue, 15 May 2007 21:29:26 +0100***
Subject: Jupiter movies - aspect corrected.

Hi all, The squashed jupiter shape problem in the previous movies has been solved, and corrected versions are now available:

http://www.damianpeach.com/images/barbados2005/jupiter2005dp.wmv

http://www.damianpeach.com/barbados06/jupiter/jupiter2006dp.wmv

Thanks,

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

●・・・・・・・***Date: Wed, 25 Apr 2007 00:05:25 +0200***
Subject: Re: Venus 18th april 2007

Dear Chris, dear Paolo, Venus from 18th april I also observed, and my picture in UV shows the same structures as Christophe's uv picture. The details on the other wavelengths are also real, no processing artefacts.

I think, I can say this because of my experience in picture processing - artefacts look different;...

The Venusian atmosphere has a complex wind-system. The velocity of the wind in different altitudes generally decreases from 100 m/s at 68 km altitude to 0 m/s at ground. That means on the same latitude the clouds rotate slower, the deeper they are. This is the reason for different structures on different altitudes.

With longer wavelength you can look deeper, this is a known fact in Deep-sky Astronomy to look into dust clouds. In our case we can look deeper into the Venus clouds, if we use longer wavelength. But the contrast rapidly decreases and most of the time we don't see anything. With very good seeing conditions we will see sometimes structures. This is especially the case, if we have very good transparency (no humidity, no dust, no palls).

On april 18th I had steady seeing, very good transparency and no wind at my observing place. Also the day- and night-temperature where very close together, so we had no atmospheric turbulence during dawn. The air was nearly in perfect thermodynamic equilibrium. I think, it was the same conditions over whole Europe. And this conditions make it possible to get these clear structures...

On other days with bad conditions you will see low contrast pictures (like Ghost pictures) of the upper cloud or nothing...

I attache a comparison from Christophe's and my Venus from 18th april. Best wishes.

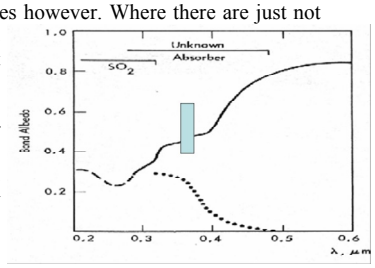
Paolo Lazzarotti wrote;
>***Date: Mon, 23 Apr 2007 11:18:26 +0200***
>***Subject: Re: Venus 18th april 2007***
> Chris, An oddly straight pattern the one you grabbed in the
> B filter!
> *Christophe Pellier wrote:*
>> Hi all
>> http://www.astrosurf.com/pellier/V070418-CPE
>> Again a surprising result here ; ・・・・・・・

○・・・・・・・***Date: Thu, 26 Apr 2007 03:45:09 +0200***
Subject: Re: Venus 18th april 2007

Hi all, I contacted Dr. Wojciech Markiewicz (Principal Investigator of VMC Instrument, Venus Express), Max Planck Institute for Solar System Research, Katlenburg-Lindau in Germany and showed him the pictures of Christophe. Here's his answer:

> Dear Silvia, It is a combination of two things. It is true that the longer
> the wavelength the lower down you look in the Venus atmosphere.
> More important however is, I think, the scattering by the haze particles

> although probably not fully true is like this. At about 65 km altitude
> we have the upper cloud deck. This is where SO_2 and the unknown
> absorber reside.
> Above the clouds there is a haze of aerosols. This haze particles scatter
> solar radiation back to the observer, in orbit or on Earth. The number
> density of these particles varies however. Where there are just not
> enough of them solar protons
>penetrate to clouds and get
>absorbed.
> This we see as dark marking
>in UV-blue. In green however
>there is
> no absorption and Venus is
>almost featureless, practically
>all the
> photons get back scattered.
>See attached plot from an old
>paper by Moroz. The solid line is Bond albedo - it is nearly 0.8 (very
>large) in green. At the same time the contrast (dashed line) goes to zero.
>Hope this helps, keep up the good work, ***Wojciech***



○・・・・・・・Date: Thu, 26 Apr 2007 16:11:12 +0200
Subject: Re: Venus 18th april 2007

Dear Paolo, > It looks like the B filter is almost unuseful and the
> G filter is definitively.
> So, how to explain some weak markings sometime grabbed by imagers?

With my 8" Newtonian I never saw visually any structures on Venus, the contrast was to low. Maybe the diameter of my telescope is to small. On the other side, I don't have good colour filters, just an old cheep Baader Filter set for visual Observers. But I started observing Venus for structures just 7 weeks ago. I live nearby Stuttgart, in the heart of a huge industrial region in Germany and we have a bad sky. During good nights i can see stars with 4.5 - 5 mag. On better places maybe I would be more successful...

I believe, there are several facts:
- Seeing conditions during observing time on the Earth (transparency and air turbulence)
- Resolving power of used telescope
- Sensitivity of the used camera
- Quality and range of the used Filter
- Aerosol situation on Venus (the more of these aerosols over the cloud deck, the less contrast and structures we see)

Maybe also the sun activity is important. We don't know the influence of solar radiation and magnetic field on the aerosols in Venus atmosphere. From the Earth it is only known, that during low sun activity dust from the interstellar range penetrates increased into the Earth atmosphere and these dust particles intensified the formation of clouds in upper atmosphere...

Back to Venus: I believe, useful filters are
uv (Baader, Schüler) wratten 47 violet deep blue
sometime green also. Violet, deep blue and green need huge diameters and excellent seeing conditions. With this filters you look deeper into Venus atmosphere (some few km), so the pictures can show different structures.

These structures are real, processing artefacts look other way... The fact, that you can see other structures in deeper atmosphere is known from Mars observing. Sometimes you have blue clearing and can see water clouds. On other days you don't see anything in blue...

○・・・・・・・Date: Sun, 20 May 2007 08:49:35 +0200
Subject: Jupiter 19th May

Dear colleagues, on May 19th I had unbelievably good Seeing, so I caught this picture of Jupiter with 665 nm and my Videomodul (b/w camera) with my 8" Newtonin and Eyepiece projection. 45% of 3.000 Single frames, 00:32 - 00:34 UT, this is the original size... 5 more AVI's are waiting for proceeding... and here my first try to generate a map of Jupiter with WINJUPOS, made of 2 Pictures with 1 hour difference... best wishes

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

●・・・・・・・Date: Wed, 25 Apr 2007 01:35:54 +0100
Subject: Re: Venus 18th april 2007

I also imaged Venus on April 18 in various wavelengths. My results are not as clear as Christophe's, but they are consistent with them.

○・・・・・・・Date: Mon, 7 May 2007 01:32:36 +0100
Subject: Comet C/2007 E2 Lovejoy, May 01

Here are a couple of shots of Lovejoy, done by different methods.

Lovejoy was fairly racing across the sky, and its motion would have blurred it against siderial tracking in more than a minute.

Hence the first method was to take 20 exposures of 1 min each tracked at siderial rate, and stack in Registax, aligning on the comet.

The second method was to use PulseGuide software to measure the drift rate of the comet, and, setting the Astro-Physics 900 mount to track at that estimated rate, to take 4 exposures of 3 mins. each. These were also stacked in Registax, aligning on the comet.

Results are similar. The longer total exposure of the first image gives a smoother result. I tried again with longer exposures the following night. More to follow.

I could not see the comet visually in any of my telescopes. The wonders of the CCD...

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: Wed, 25 Apr 2007 11:11:33 +0200
Subject: Re: Venus 18th april 2007

Chris, I bet it's impossible to keep the planet in the same *exact* place with any filter, so it might happen the planet could lie close to a dust donut with a particular filter only. When using strong wavelets as with Venus, a faded penumbra could turn into a sharp edged umbra.

But this is just a possible explanation because consistent. I'm not saying at all this is what happened!

Christophe Pellier wrote:

> Paolo, I don't think so, the bands look real. Dirt on the CCD glass
> would not have this aspect and would also appear with the same level
> of contrast in R, G, and IR, as those images have been taken with the
> same small cropped portion of the chip...
> So far I have not seen any ghost on the images.

○・・・・・・・Date: Wed, 25 Apr 2007 11:16:56 +0200
Subject: Re: Venus 18th april 2007

Dear Silvia, Thank you for your contribute! The UV images here mentioned are simply out of discussion because undoubtly real. What we're debating for is the B image which is not reflecting at all the UV image. Although the venusian atmosphere is very dynamic, the thin wavelenght difference here involved between the B and the UV I think it's insufficient yet to demonstrate the

huge difference with the images. Just my 2 cents.

◯・・・・・・・***Date: Wed, 25 Apr 2007 14:22:42 +0200***
Subject: Re: Venus 18th april 2007

Dear Silvia, I'm not sure this comparison matches so much with our Venus debate. The Venus atmosphere is continuously emitting from the deep UV to the IR (that's why we're collecting detailed images in such wavelenghts) while the solar cromosphere can be detected in the Hα line only. If you aim the PST toward an incandescent lamp you could see no difference even if tilting the ethalon filter or moving your eye off its axis! The same null difference is also seen when looking at the solar photosphere in the UV and B wavelenghts. Excluded the isolated CaK line...

◯・・・・・・・***Date: Thu, 26 Apr 2007 11:07:37 +0200***
Subject: Re: Venus 18th april 2007

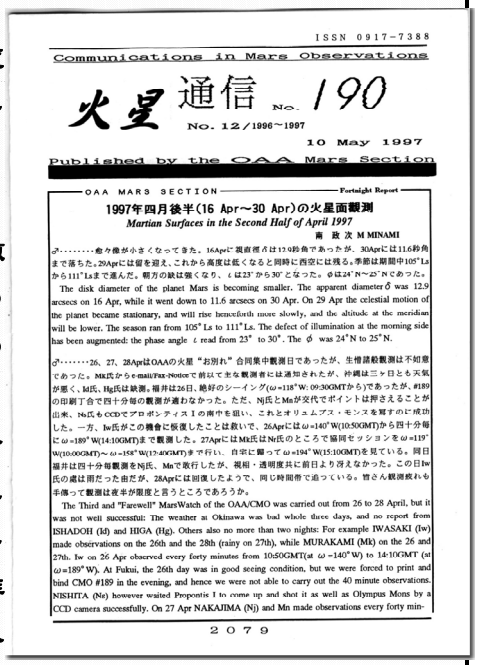
Very interesting, thank you! It looks like the B filter is almost unuseful and the G filter is definitively. So, how to explain some weak markings sometime grabbed by imagers?

Silvia Kowollik wrote: >Hi all, I contacted Dr. W. Markiewicz ・・・・・・

TEN YEARS AGO (191)

----CMO #190 (10 May 1997) & #191 (25 May 1997) ----

CMO#190 *pp2079-2090* には、四月後半の観測報告がまとめられている。最接近をすぎて四月末日の視直径はδ=11.6"と小さくなり、季節、中央緯度、位相角も、それぞれλ=111°Ls, φ=25°N, ι=30°となった。集中観測日が26, 27, 28 Aprに設定されたが、天候に恵まれなかった。日本からは、この期間、シュルティス・マイヨルの朝方、エリュシウム、オリュムプス・モンス、アルバなどが観測された。この期間、国内からの報告者は12名を数える。国外からは８名であった。オリュムプス・モンスに関して前回のTYAで取り上げるべき事柄であったが、オリュムプス・モンスの位置経度が、衝の翌日(18Mar)、福井での中央通過時刻観測で正確にΩ=135°Wと求められている。


ISSN 0917-7388
Communications in Mars Observations
火星通信 No. 190
No. 12/1996~1997
10 May 1997
Published by the OAA Mars Section
OAA MARS SECTION Fortnight Report
1997年四月後半(16 Apr~30 Apr)の火星面観測
Martian Surfaces in the Second Half of April 1997
南 政次 M MINAMI
2079

LtEは、Frank J MELILLO (USA)、Thomas R CAVE (USA)、Elisabeth SIEGEL(Denmark), Daniel TROIANI (USA)、岩崎徹(Iw)、David L GRAHAM (UK), 伊舎堂弘 (Id)、比嘉保信(Hg)の各氏より寄せられている。"Click CMO (7)"には、国立天文台のホームページ開設事情がある。

CMO#191 *pp2091-2102* には、五月前半の報告がまとめられている。当時の火星はしし座にあって、日没時には南中前ですでに高く昇っていた、観測時間は夜半までで、観測期後半の様子になっていた。15 Mayには、δ=10.3", λ=118°Ls, φ=25°N, ι=35°と推移している。国内の天候不順にも拠るが、報告者は、国内八名、国外九名と減ってきていた。この期間我が国からは、ソリス・ラクス、マレ・アキダリウム、シヌス・サバエウス、夕方のシュルティス・マイヨルまでが見えていた。北極冠は縮小して定常状態になっていて、北極冠周辺や内部の様子の観測もある。期間末には夕方に明るいヘッラスが見え始めた。

LtEは、重久長生(神奈川)、Jean DIJON (France)、Christian SCHAMBECK (Germany)、王永川(Yong-Chuan WANG, Taipei)、Sam WHITBY (USA)、Frank J MELILLO、Jim BELL (USA)、Iw、松本直弥(Mt)、Idの各氏よりのものが紹介されている。"Click CMO (8)"には、HST撮影(30 March 1997, 097°Ls)の火星画像が速報で取り上げられた (press-released on 20 May)。

TYA(20) はCMO#032 (10 May 1987) 、 TYA(21) はCMO#033 (25 May 1987)の二号の紹介である。廿年前の1987年当時の火星は日没時には西空に低くなっていたが、再開したOAA Mars Section には、福井での観測に加えて追加観測の報告があった。記事として、パーカー氏からの画像と、惑星写真撮影法が紹介されていた。日本側からは松本直弥氏の1986年の火星画像に関する連載があった。

村上 昌己 (Mk)

○・・・・・・・***Date: Thu, 26 Apr 2007 17:31:44 +0200***
Subject: Venus rotation, April 19th to 22th

Hi guys, For the first time in years I was able to capture a planet over 4 consecutive evenings! This allowed me a complete mapping of Venus because of its 4 days high clouds spinning period.

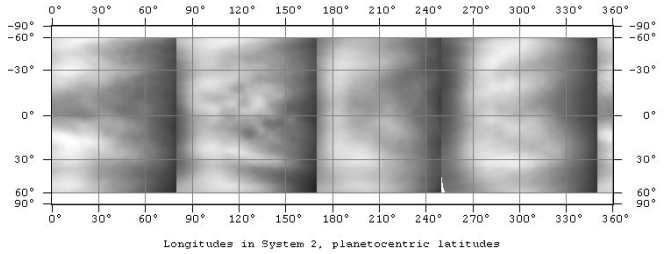
http://www.lazzarotti-hires.com/images/inner/venus20070419_lazz.jpg
http://www.lazzarotti-hires.com/images/inner/venus20070420_lazz.jpg
http://www.lazzarotti-hires.com/images/inner/venus20070421_lazz.jpg
http://www.lazzarotti-hires.com/images/inner/venus20070422_lazz.jpg

On April 19th I captured venusian clouds among terrestrial clouds which did let me have a thin minute of clear sky only. Seeing was fairly good nonetheless, hence my frustration.

On April 20 and 21 I had clear sky but poor seeing.

On April 22nd I decided to move my telescope over a beach (!) to prevent convective heat from the ground. Venus was well placed over the relatively cool sea surface (18°) and I could enjoy a breathtaking image at the eyepiece! The 2 bright cusps were easy and prominent without any filter and I could grab my best Venus shot ever. Need an house in front of the sea...

○・・・・・・・***Date: Tue, 08 May 2007 11:13:42 +0200***
Subject: Re: Venus,



Hi all, Wish I could be of more help, but I'm so busy right now... Any way, hope this map from me (from April 19 to 22) could be of some help.

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

●・・・・・・・***Date: Wed, 25 Apr 2007 18:41:19 +0200***
Subject: Re: Venus 18th april 2007

Paolo and Silivia, The dust donuts hypotesis crashes against one argument: if it's only that, why aren't the UV markings not visible in the background ? They are really not there! This proves for me that there is a real difference. Now check again my april 6th images: the B image also looks different for me, although not that much.

http://www.astrosurf.com/pellier/V070406-CPE

○・・・・・・・***Date: Thu, 26 Apr 2007 18:49:53 +0200***
Subject: Re: Venus 18th april 2007

Hi all, About the details seen in visible wavelengths - blue excepted. I think they are compatible with the albedo of that curve because the contrast of the weak details detected could very well be comprised in the 15-20% loss of light that still exists near 500-600 nm. A complete absence of absorption would mean an albedo of 100%, isn't it? I would trust more the G Astronomik filter Paolo, so far all my G images don't show any blue details. Especially interesting is the complete absence of the polar cusps in green light... note that they are still well visible on my controversial B shot of april 18th. Clearly, the UV markings could not be detected after 450 nm, and the G filter is blind at that wavelength.

David, for me the only radiation detected in IR is the surface at 1 micron on the night side. Otherwise amateur near-IR images of planets only show reflected solar light as in visible light. Nice images Paolo, apart of this !

Silvia Kowollik a écrit :・・・・・

○・・・・・・・***Date: Sun, 29 Apr 2007 15:15:03 +0200***
Subject: Re: Venus 21th april 2007

・・・・・The rotation is a question I would like to investigate. In 2004, I've not been able to find the slightest correspondence in the canonical 4 days, but I did found a few that matched nicely in 5 days.

Sanjay Limaye a écrit :

>Nice ! So many of you have taken such wonderful images of Venus
>lately, that I am very impressed. Since Venus Express mostly looks at
>the southern hemisphere, it is very nice to see what is going on in the
>other hemisphere. The atmospheric flow over the last year has varied
>from anywhere from 4.5 to 5.5 days at low latitudes to ~ 3 days at ~ 60
>degrees latitude.・・・・・・

○・・・・・・・***Date: Sun, 06 May 2007 11:17:40 +0200***
Subject: Re: Venus 5/5/2007

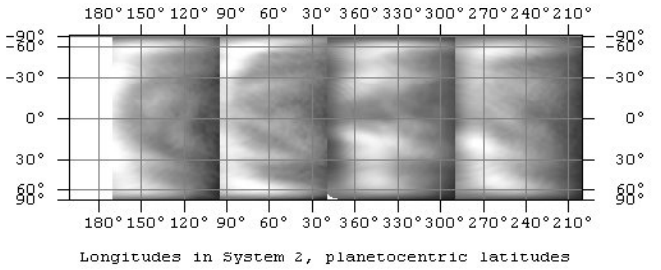
Hi Sean and all, As I have also imaged yesterday just a few hours before you Sean, I have been able to make a few test about the venusian rotation. First, a little animation. It's a bit difficult to catch because there is a lack of gross structures, but there are two dark points that are found on both images, near the limb on my image. I have then mapped the two images with the idea of calculating the rotation. On the two maps, there is one dark point near B = 10/12° and L2 = 282°. The longitudes are coherent so we could conclude that this "system II" is good. But WinJupos's value is based on a rotation of 4,17 days (100 hours) more than the canonical 4 days (96 hours) that has been confirmed by Richard McKim during the 2004 apparitions. It's now possible to evaluate how long it would take this dark point to complete one rotation. For this I map Sean's image with the same hour than my image. The longitudes are now changing to: Pellier L2 = 282°, Walker L2 = 261° (in coherence with backward spinning). The point has drifted 21° during the 350 mn (5 hours 50 mn) that separates the two images. This means than in four days (5760 mn) it would drift 357°, almost a full turn. The difference could also comes from the fact that it's 10° lower in latitude from the equator, therefore spinning a bit slower... This measurement looks to confirm the 4 days rotation. Daniel and Grischa, what do you think about it ? Does the L2 system of Winjupos is wrong? Now to be honest, this kind of measurement is difficult. I have made more attempts from the 2004 data and found incoherent values of 3 to 5,5 days:-/// Best wishes

○・・・・・・・***Date: Sun, 06 May 2007 18:43:14 +0200***
Subject: Re: Venus,

Sanjay, I was casually working on mapping Venus this afternoon, from european data. Here is the best one I have (the others are incomplete). Imagers are
2007/04/18 : Pellier (first day; right of map)
2007/04/19 : Lazzarotti

2007/04/20 : Pellier
2007/04/21 : Pellier
It's not easy to follow the structures from one day to another... here, the last two days are the more coherent. I have three or four other maps on following 4-days rotation. Features look to evaluate too fast to be found again in the four days resonance, after more than one rotation... Mapping is done with WinJupos :

http://www.grischa-hahn.homepage.t-online.de/astro/winjupos/index.htm



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

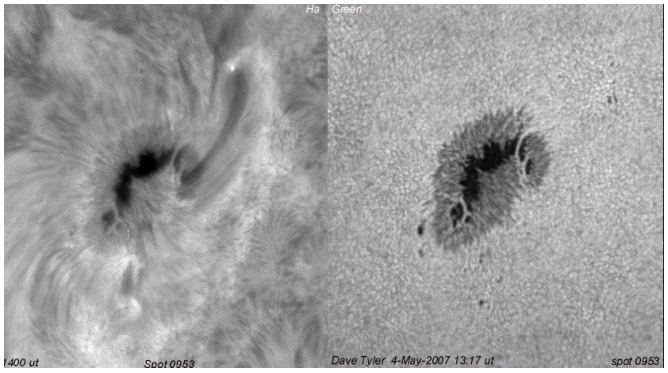
●・・・・・・・***Date: Wed, 25 Apr 2007 21:32:24 -0400***
Subject: Re: Venus Images (April 22nd, 2007.)
Damian - Your work is truly excellent!
This is something that our ALPO Venus coordinator Julius Benton looking for years to see if there is any connection between the possible details in visual and then in UV light and as well as in the infrared light. I think your images really demonstrate the different type of filters we all using. You may shed new light of what is seen in one filter and not in another.
We look forward of more of these images taken in Barbados, if you plan a trip there.
○・・・・・・・***Date: Sun, 6 May 2007 21:50:26 EDT***
Subject: Re: Venus 5/5/2007
Christophe and all - This is great! You have done an excellent work of determine the rotation rate of Venus' upper atmosphere in all latitudes. I could see the same features move from the limb to the terminator which is a backward motion. Besides, I'm having difficulties to see the same features from one day to the next.in Paolo's images from April 19th to 22nd. He has 4 days straight with excellent images in UV details. But still, it is quite difficult since they move so much.
As I mention this earlier, it is best to see the 5-6 hrs difference to determine the rate. During that period, most features don't change their shape that quickly. They can change significantly the next day and they would be difficult to identify the features as they were seen the day before. I have here some animations of Venus' rotation including with Christophe and I from February 8, 2004.
http://hometown.aol.com/frankj12/venusindex.html
Christophe, keep up with your excellent work. This is something we have never seen before!
Frank MELILLO (ﾌﾗﾝｸ･ﾒﾘｯﾛ Holtsville NY 美)

●・・・・・・・***Date: Thu, 26 Apr 2007 21:00:30 +1000***
Subject: Mars image 25Apr2007
Attached is my Mars image from the 25th of April 2007 taken in poor seeing.
○・・・・・・・***Date: Thu, 26 Apr 2007 22:16:29 +1000***
Subject: RE: Mars image 25Apr2007
Dear Masatsugu, Thank you for your kind words about my Mars images. I will try to keep imaging Mars for one more month, after which I will be going to Europe for one month. By the time I return, Mars will be too low from Melbourne for effective imaging. Also my telescope is in serious need to have it's mirrors realuminized.・・・
Best Regards
○・・・・・・・***Date: Tue, 1 May 2007 21:52:33 +1000***
Subject: Mars image 30Apr07
Please find attached my Mars image from the 30th of April 2007 taken in poor seeing.
○・・・・・・・***Date: Sun, 13 May 2007 22:10:10 +1000***
Subject: Mars image 12-05-07
Attached is my Mars image from the 12th of May 2007 taken in poor seeing.
Stefan BUDA (ｽﾃｨｰﾌｧﾝ･ﾌﾞﾀﾞ Melbourne 澳)

●・・・・・・・***Date: Fri, 27 Apr 2007 11:04:02 +0100***
Subject: Last Saturns of the apparition
Hi Guys, With Saturn now well past the meridian in a light sky, its now bye bye from me until the Autumn. I just noticed on Jupos, on a randomly chosen date, the 27th October, we have Mimas, Encelados and their shadows on there at 0430 ut. So plenty to look fwd to. With imaging what it is now. will this be the first time that multiple images of the transits of Saturn's moons shadows grace our mails and mags? Detail on Saturn's moons during transits???
The attached image from the 22nd were taken in very good seeing in a light sky. The 25th's sky was much dimmer, but with fair seeing. This apparition had little useable seeing until April, when statistics being what they are , crammed all the good seeing into one month. With that confined to about an hour around dusk, and a few brief periods a little later. Best wishes
○・・・・・・・***Date: Sun, 29 Apr 2007 13:03:42 +0100***
Subject: Spot 0953 28th April
Hi guys, This is 0953 from yesterday. I was lucky in catching a bit of good seeing for the central part of this three image montage. There is a lot going on around this spot, It's best viewed on widescreen full size. Best wishes
○・・・・・・・***Date: Thu, 3 May 2007 08:22:06 +0100***
Subject: Re: Solar images from 2nd May
Morning All, Excellent stuff Pete. Great patience. Your animation certainly brought the filament to life. Those mini flares, I learned yesterday from space weather, are called Ellerman Bombs. I saw them for myself through out the day, and have often wondered about them, as they seem to be ignored by the solar forecasts. I recall the largest one that looked like Bart Simpson sitting in an ice cream cone. And I quote: "Sometimes called "microflares," Ellerman Bombs are magnetic explosions about one-millionth as powerful as a true solar flare. They are named after Ferdinand Ellerman who studied the tiny blasts in the early 20th century. Of course, "tiny" is relative. A single Ellerman bomb releases about 1026 ergs of energy--equal to ten million atomic bombs. Sunspot 953 is crackling with these blasts, which makes it very entertaining to watch. " Cheers
○・・・・・・・***Date: Fri, 4 May 2007 00:23:18 +0100***
Subject: Venus uv 30th Apil
Hi guys, Here's Venus with the Baader Venus filter.

The detail matches Richard Bosman's of almost the same time, very closely. Seeing was fair to good. Best wishes

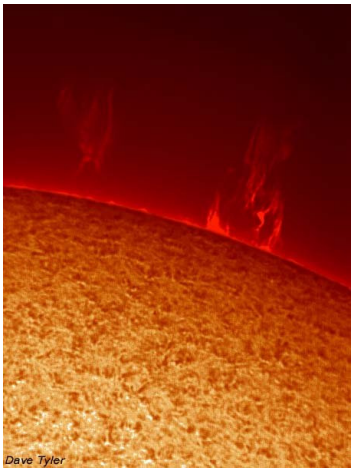
◯・・・・・・・***Date: Fri, 4 May 2007 23:50:19 +0100***
Subject: Solar images 4th May



Hi Guys, Registax 4 did a good job with todays seeing, by cleanly sorting out the better frames from the mush. Its interesting to compare the green filtered image off the Herschel wedge, directly to the Hα image. The Hα clouds, in this particular .6Å filter, almost hide all but the umbra, and even some of that is obscured where the filament appears to originate from. I am quite amazed that no witness of all this activity shows at all, in white light.

Best wishes

◯・・・・・・・***Date: Sun, 6 May 2007 21:32:09 +0100***
Subject: Venus uv 5th May



Hi Guys, Here are a couple of images with the Baader filter, no additional ir block, (I simply dont have one.)
Best wishes

◯・・・・・・・***Date: Fri, 18 May 2007 23:53:32 +0100***
Subject: solar activity 17th May

Hi Guys, Here are a couple of images from the 17th. A devil of a spot 0956, and a pair of proms. Both images are 90" fl and taken more the 5 hrs after the meridian. Best wishes

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

●・・・・・・・***Date: Fri, 27 Apr 2007 13:57:11 +0200***
Subject: Not the Last Saturns of the apparition, I hope

Hi David and other guys, for me I hope to do some more on Saturn this apparition, now hat spring is in the air and hope ones for a good seeing. Here an image from the 20 april, it's a mix with difference layer.

Luminance is a pure one, with a little information from R and G. ps David , are not intrested in Venus ?
Kindly regards

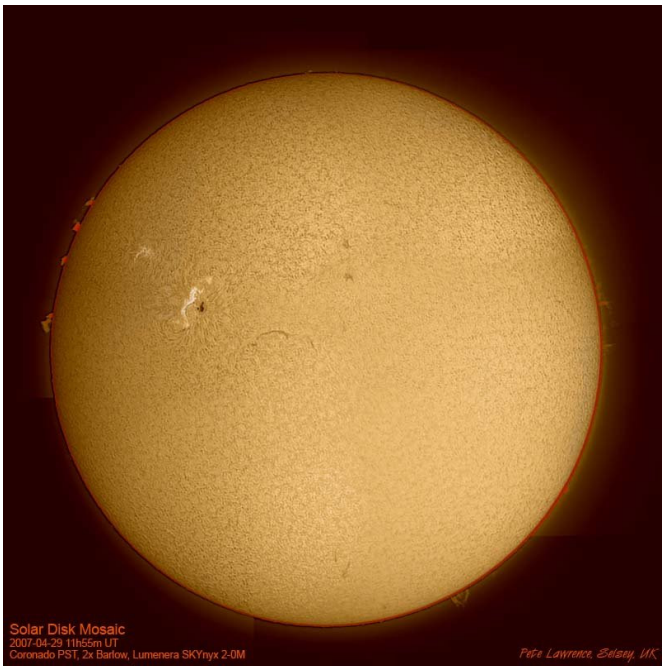
◯・・・・・・・***Date: Wed, 9 May 2007 17:36:54 +0200***
Subject: Saturn 2007/4/22

Hi all, now that the weather is cooling down and we have more clouds and rain in Holland, what sure beter is for the dry periode we had for 6 weeks. The avi's files what I collect from the last weeks, can now be processed.
Kindly regards

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

●・・・・・・・***Date: Sun, 29 Apr 2007 23:31:52 +0100***
Subject: AR10953/54 April 29th

Hi all, A truly fantastic close up of 953 from Dave Tyler from the 28th. My diminutive PST can't hope to come close to that but it's not too bad at overview shots. The full disk mosaic is a nightmare with the PST as the imaging field is badly affected by non-symmetrical gradients. Best regards,



◯・・・・・・・***Date: Thu, 3 May 2007 00:27:12 +0100***
Subject: Re: Solar images from 2nd May

Hi Dave, This 6 hour animation might be of interest to you...

http://www.digitalsky.org.uk/solar/2007/2007-05-02_AR10953_Anim_8-b.gif

This shows the amazing activity away from the main spot and arch. There is a vast amount of material flowing adjacent to the main arch together with some intense brightening in the lighter region and, towards the end of the animation, within the spot umbra itself.

All frames were taken with a standard PST using a 3x Barlow and Lumenera SKYnyx 2-0M camera. The animation covers the period from 09:31 to 15:30 on May 2nd 2007 in roughly 20 minute steps. The animation has had to be heavily cropped and resized to make it manageable.・・・・ Best regards,

◯・・・・・・・***Date: Wed, 16 May 2007 14:58:12 +0100***
Subject: AR10956, CaK PST

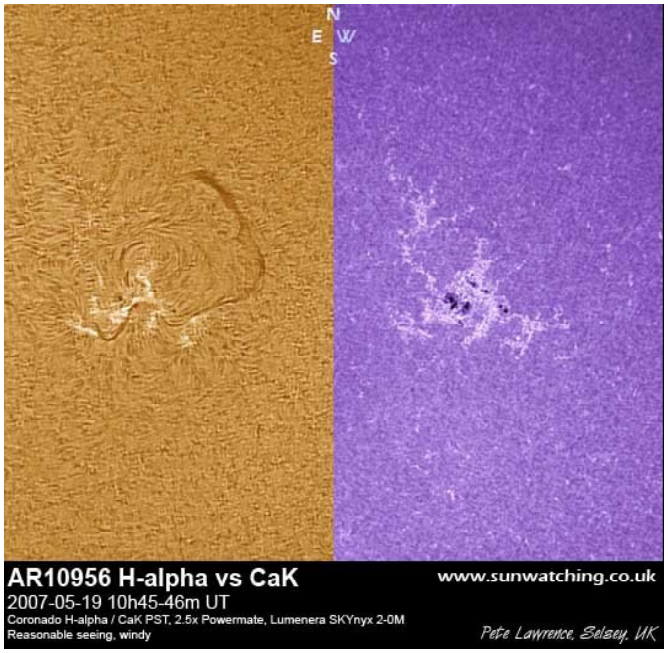
Hi all, Here's my first light CaK PST image, taken this morning just before the clouds crept over my sky. Quite a lot of high cirrus activity around at the time (causing the diagonal streaks in the image). I must say I wasn't expecting to see quite as much dramatic detail as was visible with this instrument. It quite put the H-alpha view in the shade! Best regards,

◯・・・・・・・***Date: Mon, 21 May 2007 08:44:30 +0100***
Subject: Full solar disks from the 19th May '07

Hi all, Here are two full solar disks from May 19th taken within a short time of one another. Each is a mosaic of 6 frames for the surface and 8-10 frames for the chromospheric action.

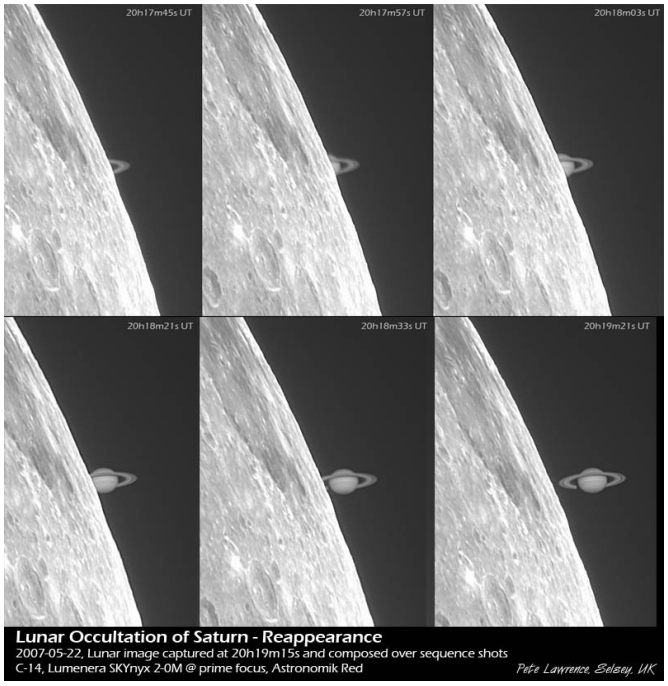
http://www.digitalsky.org.uk/solar/2007/2007-05-19_10-26-33_CaK_H-alpha.jpg

Attached is a closer side by side comparsion of AR10956.



○・・・・・・・***Date: Wed, 23 May 2007 08:35:02 +0100***
Subject: Saturn occultation event, May 22nd 2007

Hi all, Here's my first take on the occultation of Saturn that occurred on May 22nd 2007, visible from the UK in daylight. What's really surprising is that during the time I was waiting for the start of the occultation, I decided to have a play to see if I could pick up Titan with the Sun still above the horizon. With a few tweaks on the Lumenera settings, there is was a clear as day (if you'll excuse the pun!). Titan was magnitude +8.4 at the time and the Sun approximately 6 degrees above the horizon.



Best regards,

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

●・・・・・・・***Date: Mon, 30 Apr 2007 21:13:56 +0900***
Subject: non title

Dear CMO, Here is another Mars image, this one from April 29th UT about 1 hour after sunrise. Quality is not so good due to the high gain/daylight conditions. Aeria is a little bright perhaps?

I can read your Japanese e-mails with no trouble, so perhaps it is my e-mail account that is causing an issue with sending e-mail with the proper encoding. In any case, I welcome correspondence in Japanese at your convenience.

Best regards and have a good Golden Week,

○・・・・・・・***Date: Sat, 05 May 2007 21:23:59 +0900***
Subject: Mars May 4th UT

Dear Minami-san, Here is another Mars image, this one from this morning (May 4th UT). An R + IR image in good seeing given the current poor conditions. I took some other filter images and will process them next week.

As you mentioned, I think the worst is past us in terms of imaging conditions, by the end of May we should have Mars at 30 degrees or so at sunrise - given today's imaging devices/processing techniques that is more than enough to get in some quality images.

I will keep an eye on Noachis in the coming days.

Best regards as always,

Robert HEFFNER (ﾛﾊﾞｰﾄ･ﾍﾌﾅｰ 名古屋 Aichi)

●・・・・・・・***Date: Tue, 1 May 2007 18:44:56 -0500***
Subject: Re: RE:Fw: mars global warming

Dear Masatsugu, I appreciate very much your astute criticisms about the global warming paper. I rejected this paper myself, as you know--and yet I think it is of interest to recall it, if only to show how careful one must be to draw conclusions from difficult observations, especially where one must suspect the bias of preconceived notions. I did become very aware of the view of certain individuals to disprove global warming. Now all I can say is that, though global warming may indeed be going on in the Martian realm, it is owing to causes and factors that are unrelated to those on Earth. So even if the earlier paper had been correct (and I don't think it is in very many respects; you are right to call into question the assumptions in the paper, and the Rima Tenuis data is especially tenuous), it does not mean that any global warming taking place on Mars (and it does seem to be taking place) is due to the same causes forcing global warming on Earth. Quite to the contrary.

I am utterly convinced of the reality of global warming on Earth -- no need to worry about that -- and feel that those who continue to deny it will be regretted by future generations. Their true motives are transparent. I am afraid this includes certain amateur astronomers of past acquaintance.

I am, unfortunately, unconvinced of humans' ability

even if they do recognize that a problem is developing, to change their behavior in such a way as to mitigate it.

Human behavior, en masse, is almost impossible to change, and as a result, I am extremely skeptical of the future of humanity. We are -- like starlings -- bound up with short-term strategies, "play today," rather than being able to set present sacrifices against future goods. I suspect that this explains the lack of communications from extraterrestrials -- the rise of beings capable of technological sophistication is perhaps attended by its rapid downfall as its destructive tendencies are only amplified by this means. I discussed this with Frank Drake recently; he believes that we will receive communications from extraterrestrials in twenty years time, whereas I am extremely doubtful that civilizations are at all commonplace across the Galaxy, and suspect that even where they do develop, they are probably mere transients that self-destruct. I am hoping to be proved wrong; there may be planets where the norm is on the order of Buddha and Jesus and Gandhi. But the last six years have not been encouraging for anyone living here --・・・・・・

Of course, we are all saddened by the death of Mr. Ito. He seemed a very great man, a figure of world peace. It is clear that even in Japan, gun violence has become a serious problem.

I do look forward to participating in the Paris Conference on Antoniadi and the post-Lowellian view of Mars in 2009. Please keep me posted.

Again, my sincere thanks for your feedback on Mars global warming; I do not think we are in disagreement.

Best wishes

○・・・・・・・***Date: Wed, 2 May 2007 16:23:43 -0500***
Subject: Re: RE:Fw: mars global warming

Dear Masatusgu, This just in from Richard McKim--and my response to it.

○・・・・・・・***Date: Mon, 14 May 2007 20:43:25 -0500***
Subject: Fw: 1874 Transit of Venus in Japan

Dear Masatsugu, I just received a message from a Dutch astronomer who is compiling a listing of places where the transit of Venus was observed in past times.
I can give him descriptive information, but do you have the coordinates of the sites at Nagasaki, Kobe, and Yokohama in Japan where the transit was observed, all of which we were able to visit? I will supply him with pictures.

Also--this past weekend I spent at a medical research meeting, and became acquainted with a Japanese physician from Tokyo who was quite interested in fox possession. I mentioned the accounts by Percival Lowell and Lafcadio Hearn with which I am familiar. I may be posing to you some questions about the possessions on Mount Ontaké that Lowell described.

Hope you are well,

○・・・・・・・***Date: Sun, 20 May 2007 11:15:38 -0500***
Subject: occult japan

Masatsugu, This just sent ot Tony Misch and Laurie Hatch. We are still considering the problem of drawing Mars. Thought you might enjoy.

All the best, yours,

Hi, Tony,

After meeting a Japanese psychiatrist at a research meeting last week, I engaged him in a brief discussion of fox possession (it was common in the 19th century--and apparently a Japanese equivalent of demonic possession in the West--but he has seen only one case in his paractice).

I decided to read up a bit on the subject and pulled down from the shelf Percival Lowell's "*Occult Japan*" (1894, or published just as he was veering from the Far East to the Far Out); it is the one Lowell book that I have never perused, in part I suppose because of the railings against it by Lafcadio Hearn, who found its Mephistophilean detachment chilling.

Anyway, I found some great comments which are wonderfully--if unintentionally--pertinent to Lowell's Mars observations. On p. 98, he is discussing the topic of incarnations (or possessions as we would say), but I am thinking of the lines on Mars revealed by Schiaparelli:

"It is to be remembered that what no one is interested to reveal may stay a long while hid. For, with quite Anglican etiquette, the Japanese never thought to introduce their divine guests and their foreign ones to each other. Once introduced, the two must have met at every turn. Indeed, the visitants from the spirit world remind one of those ghost-like forms of clever cartoonists, latent in the outlines of more familiar shapes, till, by some chance divined,t hey start to view, to remain ever after the most conspicuous things in the picture."

I also like this passage about mountain dwellers (among which category I should include astronomers; perhaps these passages could be entered in the Lick log-book--and serve as a salutary warning to the too-diligent observer):

P. 112. "That mountains should be deemed peculiarly good points for entering another world is not unnatural. With inclines incapable of cultivation, they do not conduce to sociability, but enable the dweller there the more effectively to meditate himself into inanity. Unjogged by suggestion, the average mind lapses into comatose condition, till the man comes eventually to exist upon the borderland of trance."

To which I might add the following, from p. 118:

"Whether he be living an actual anchorite among the mountains or only a would-be one in town, solitude complete or partial tends by well-known laws to convert him into either a maniac or a simpleton." (This may explain certain aberrant personality- types which I run into in abundance, especially among amateur actual or would-be anchorites. A few are maniacs; the others....)

I was also looking into Ian Warrell's book on Turner's paintings of Venice. Jan Morris, in an introductory passage, recalled Dickens's 1844 essay on Venice, which was almost hallucinatory in form: "I have, many and many a time, thought since of this strange Dream upont he water: half-wondering if it be there yet, and if its name be VENICE."

Adapted, we might apply these words to Mars, thus: "I have, many and many a time, thought since of this strange Dream upon the inky void: half-wondering if it be there yet, and if its name be MARS." (Lowell, in his poem "Mars," written I think in 1894 or soon after "Occult Japan," described Mars as a "very Venice of a place.")

Jan Morris goes on to reflect: "The meanings of Venice, more than those of most cities, are essentially subjective, and there is nowhere on earth where observation merges more subtly into imagination, especially when an observer

is new to the scene.... Dickens never pretended for a moment that what he saw that day in 1844 was mere reality." Thus one might argue that a Turneresque dream technique would be best for rendering the planet artistically--and a far cry from the diagram-like shapes that attempt to resolve that ambiguity into clear-cut provinces of reality.

Bill SHEEHAN (ウィリアム・シーハン MN 美)

●・・・・・・・***Date: Wed, 2 May 2007 14:05:44 +0900***
Subject: Re: ヘリコプター事故

こんにちは、セブでのヘリコプター事故は原因は凧上げが原因らしいですが、ＯＫ大丈夫です。

私の住まいが今月14日、近くのコンドミニアムの10階に移ります。この建物は屋上があって空は遮られるますが、今より良い条件で惑星が見られるものと期待しています。

阿久津 富夫(Tomio AKUTSU セブThe Philippines)

●・・・・・・・***Date: Wed, 2 May 2007 18:20:02 EDT***
Subject: Re: Venus Images (April 28th, 2007.)

Dear David et al: I certainly often see the markings visually, and agree a blue or violet filter helps. There is no longer any argument about seeing the markings under such conditions, and there are many examples of accord between visual work and imaging data in print. One thing I did notice this elongation was that visually the dark markings are now getting harder to see near dichotomy; we are seeing a higher proportion of the terminator region, of course, upon the disk. On the larger gibbous disk in March and April the dark streaks showed a higher contrast to me. This recalls historical data on the nearly full disk where the markings were occasionally quite clear visually; for example, Danjon using the large Strasbourg refractor in 1926 recorded the Y marking.

Some data by David Gray from the later 1990s may interest some of the readers of this email: he found that the visible waveband colour filters showed similar streaky markings, but that the markings were narrower in red light and sometimes differed in small details such as number and orientation. The best view was with W47 blue-violet. David uses a 41 cm Dall-Kirkham. I have found that visually (on many occasions since 1975) that the markings show small changes with wavelength, and the recent filter data across the visual spectrum by Christophe Pellier and others beautifully validate this result impartially and very clearly for the first time. (I suspect that in the past those who have taken visible waveband CCD images have failed to block the IR.)

It is excellent that there are so many fine data for this year; on behalf of the BAA I am now getting regular UV data from over two dozen observers, and there will be plenty of data for mapping and tracking purposes.

Keep up the fine work! Best wishes

○・・・・・・・***Date: Sun, 6 May 2007 15:05:40 EDT***
Subject: Re: Venus,

Dear Christophe, Excellent results. The map greatly resembles the beautiful hand-drawn maps made by Boyer and Dollfus for the Pic du Midi and other observatories' work from the 1960s. Reading your map from left to right (and how pleasing to see south uppermost) I believe we have the Y marking then the psi feature, then other markings more or less changeable from one rotation to the next. My only slight worry is that the software for the system 2 period is not giving the accepted 3.99525 synodic period for the UV markings, long established by Boyer and recently confirmed by the BAA. It is important to use this effectively 4-day period rather than the slightly longer sidereal period. There is little to be gained in using a period any different from precisely 4 days for mapping as the error introduced is less than one degree in longitude. The light-time correction is never needed with Venus.

I do hope others will continue this work. A map for part of the W. elongation of 2006 will feature in the next BAA Venus report to cover the years 1999-2006 (in press). This also clearly shows the Y and psi markings and allows a suggestive comparison with the Dolfus/ Boyer general map for the 1960s epoch. The Y and the psi on average differ in longitude by 90 degrees, which is not far from the difference on your chart, but again, this may be based upon a period of greater than 4.2 days? With best wishes

Richard McKIM (理査・麥肯Peterborogh 英)
Director, the BAA Mars Section
http://www.britastro.org/mars/

●・・・・・・・***Date: Thu, 03 May 2007 03:40:38 +0000***
Subject: Re: Venus tonight

Hi Sean, Excellent images! Best so far. I will forward them to the Venus people if OK with you. Especially Sanjay Limaye (sanjayl@ssec.wisc.edu), who is an investigator on the Venus Express and will present amateur images at the Calgary meeting. Mongo

At 06:19 PM 5/2/2007 -0700, you wrote:

>Good seeing, excellent transparency (venus easily spotted an hour before >sundown)・・・・

Don PARKER (唐那・派克 Miami, FL 美)

●・・・・・・・***Date: Thu, 3 May 2007 12:08:57 +0900***
Subject: Mars-2007-05-02-KUMAMORI

撮影を始めたところでちょうど雲が通過してしまいました。薄雲を通しての撮影です。

よろしくお願いいたします。

熊森 照明 (Teruaki KUMAMORI 堺 Osaka)

●・・・・・・・***Date: Thu, 03 May 2007 15:06:28 +0900***
Subject: 『火星通信』#330拝受

『火星通信』の#330、本日午後届きました。いつもありがとうございます。お礼まで。

○・・・・・・・***Date: Sun, 20 May 2007 21:57:03 +0900***
Subject: 合同大会報告

昨日、合同大会で2005年10月18日のdust cloudについて発表し、本日帰ってまいりました。

昨日の発表では、九州東海大学の鳴海先生が聞きに来てくださり、たいへん心強い思いをいたしました。一応予稿集通り、東北大学の研究会と同じ内容で話しましたが、神戸大学の林祥介さんが、Gierasch モデルはもう古いと言っていたのが驚き

でした。現在、dust stormのモデルとしてどのような考え方が主流なのか、もう少し勉強したいと思います。

小郷原(Ogohara)さんは私の次の発表でしたが、ポスターセッションの門脇さん(東大理)の前で、門脇さんの説明を聞きながら話をする機会を得ました。小郷原さんは2001年のdust stormにこだわっているようですが、2001年のものはLsでも発生場所でも特異なので、例えば1971年や1956年型のdust Stormも考慮してはどうかと(僭越ながら)アドバイスしました。

門脇さんのGCMモデルはdust stormが自励的に作られるそうで、面白く思いました。ただ励起源としてはタルシスなどの大規模地形の影響を考えているようです。小郷原さんよりGCMモデルとしては勝っていると、小郷原さんは言っていました。以上連絡まで。

浅 田 正 (Tadashi ASADA 宗像 Fukuoka)

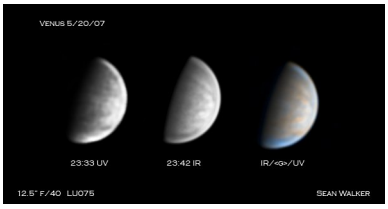
●・・・・・・・***Date: Wed, 9 May 2007 08:19:45 -0700***
Subject: Venus 5/8/2007, excellent seeing

Forgive the repeat for those who received my image last night, but I believe I achieved a better result on the data today. 5/8/2007, 23:49 UT 12.5" at *f*/40

http://masil-astro-imaging.netfirms.com/SWI/venus%205-8%202349.jpg

○・・・・・・・***Date: Mon, 21 May 2007 07:07:27 -0700***
Subject: RE: Venus May 14, 20

Here is one from last evening, and another I just processed from last week. Interesting details in near-IR last night.



Sean WALKER (ｼｮｰﾝ･ｳｫｰｶｰ *S&T* 美)

●・・・・・・・***Date: Wed, 09 May 2007 14:16:55 +1000***
Subject: Re: Ask another favour of you

Dear Masatsugu, Thank you for your message. I will reprocess my 2003 data as you have suggested.

Unfortunately it has been a bad time for me and my family here for the past month, as my father suffered a heart attack about three weeks ago and passed away last Sunday evening.

I will begin observing again in a couple of weeks when things settle down a little. Bets wishes

Maurice VALIMBERTI (ﾓｰﾘｽ･ｳﾞｧﾘﾑﾍﾞﾙﾃｨ Melbourne 濠)

●・・・・・・・***Date: Mon, 14 May 2007 10:35:07 +1000***
Subject: Fwd: First Mars for 2007 - 12th May

Hi guys, David Ardatti suggested I forward this to you. I'll include you on any further images. Thanks.

Mike SALWAY (ﾏｲｸ･ｿﾙｳｪｲNewSouthWales 濠)

(註) 畫像はGalleryに。然し問い合わせに対し返事がないのでReviewの方からは省いてある。(*Ed*)

●・・・・・・・***Date: Sat, 12 May 2007 17:41:03 +1000***
Subject: finally a jupiter from tassie

Hi All, Fog is already rolling in to spoil the party again, but last night I was able to image Jupiter in nice seeing.

10" Newtonian with a dob driver II keeping the tracking honest 1.5 × upscale in Anthony Wesley's pre registax program Ninox. heres to some more good seeing and good luck to Damian in Barbados!

David PRETORIUS (ﾃﾞｲｳﾞｨｯﾄﾞ･ﾌﾟﾚﾄﾘｳｽ Tasmania 濠)

●・・・・・・・***Date: Tue, 15 May 2007 14:24:04 -0500***
Subject: Mars image from Don Bates - Houston, TX

挨拶! Dear M. MINAMI and M. MURAKAMI: Hello to everyone at the CMO! Once again, Mars has entered our local skies. I am very excited to once again have the privilege of submitting my humble Mars images to your fine web site. Your excellent job of preparing, archiving, and publishing my images is greatly appreciated.

I believe the 2007 apparition of Mars will hold many wonderful surprises. Your insightful interpretation of images provided by observers all across the globe expands my understanding of the subtle secrets of the Red Planet. May Fortune bring you clear and steady skies, as well as the health and vigor required to spend many happy hours at the eyepiece. All the best,

○・・・・・・・***Date: Wed, 16 May 2007 13:44:14 -0500***
Subject: Bates image from 05/16/2007

Gentlemen: Hopefully this image is properly arranged and is not a mirror image. Please let me know if I need to adjust anything. Seeing was very poor, so I tried reducing magnification to around *f*/15, and increased the image size during processing. (This is why it is a BMP file, instead of JPEG.) Results were mixed; I will probably go back to *f*/30 on the next images. I am having some challenges with the Dec Axis on my mount, must work this out in the next few days. All the best,

○・・・・・・・***Date: Sat, 19 May 2007 18:48:08 -0500***
Subject: New Bates image taken 05/19/2007

Greetings: Conditions continue to be clear in Houston, although the seeing at this altitude at dawn is very turbulent. Once the twig light starts to heat the local area, the seeing really gets bad. Focusing is a real challenge. I have to wait until the planet is as high as possible, before the daylight washes out all detail. The good news is that I can take some video while getting ready for work in the morning. I may try some monochrome images through a #25 Wratten filter soon. Best,

○・・・・・・・***Date: Sun, 20 May 2007 21:35:14 -0500***
Subject: Image from 05/20/2007

Gentlemen: Please find my image taken this morning 05/20/2007.

Don BATES (ﾄﾞﾅﾙﾄﾞ･ﾍﾞｰﾂ Houston TX 美)

☆ ☆ ☆

ときどき歳時記

(1):◆私はMk氏の歳時記村の住人という柄ではないので、初っ端を書くのは相應しくないのだが、Mk氏に埋草用にときどき歳時記を書いておいてよ、と言った段階では今月號に埋草が必要とは思っていなかったのだが、廿頁で納まる算段が、計算違いをやって、今さっき埋草が必要ということが分かりガックリ、Mk氏の返事も待てず、天文臺明けだが急遽自分で埋草する羽目になった。◆歳時記というのは季節に應じた祭事･行事等を解説するものでMk氏の拘わるのはこれだが、狹義には俳句の季語を集めた所謂「季寄せ」がそうである。そこで仕様がないから「火星」は季語たり得るかという題を立ててみることにする。◆季語というのは奥義があるらしく、月は季語だが秋、流れ星も秋と決まっているらしい。端居で流れ星を見ちゃいけないらしいのである。山ならいいらしい。「端居して窓一杯の山を見る」(星野椿)。滿月も秋だけらしく、春なら春滿月とするらしい。◆山が無季なら「青山河」はどうであろう。如何にも梅雨頃の夏らしいが、いつかTs氏に伺ったところでは歳時記にはないらしい。色弱の佐藤鬼房の日本神話に題材した有名な句に出て來るが、この人には季語は問題ではない様だ。また、加藤楸邨のお弟子さんたちはこれを季語として認めないだろうと思う。何故ならばこれも有名な「蜩や硯の奥の青山河」(楸邨)では蜩が立秋過ぎに鳴くとすれば秋の季語であろうから、何れにしても青山河を季語としたら重なって拙かろうという譯だ。尤も硯には「日暮らし」だから、僭越ながら假名にした方が好さそうにも思う。◆扨て、火星である。これはもう夏である。俳句より古い『晉書天文志』に「熒惑、それは南方・夏・火のしるしであり、禮にあたり、視にあたる」とある譯だから、名月と同じように考えれば、夏以外にあり得ない。尤も、これは十五年に一度しか見られないとなると、巷間に膾炙されることも少なく、先ず句作の動機たり得ないであろう。とすれば季語としては登録もされないであろうと思う。◆例えば「断崖の火星に触れる沙羅の花」(五島高資)はどうであろう。沙羅の花が夏の季語であるから火星は無季であろう。五島氏は天文の得意な俳人で、ここの火星はキッカリ2003年の火星であろうと思う。◆では季語とするには春滿月に倣って「夏火星」としたらどうかと思って、Googleで引いてみたら俳句などあらばこそ、私の十年前の文章「夏火星」がトップで出て來た:
http://www.union.sci.kyoto-u.ac.jp/icho/smars1.html
停年前に理学部の職組機関誌に書いたもので、よくぞ殘っているという感じであるが、CMO-Webには未收容である。この場合は『聖德太子傳記』には「カクァセイ」と訓してあると書いてあるから俳句には向かない譯だ。◆火星は季語の早星として扱われることはある様だが、私は寡聞にて俳句は不知道である。◆尚、斷っておくが私は俳句は詠まないし、新聞俳句も氣の向いたときしか讀まない。ただ、最近は毎朝携帯に配信されて來る黛まどか氏の「俳句でエール」で励ましを受けている。俳句はドナルド・キーン氏に習って、二つの極とその間のスパークが大事だと理解しているが、最近エール俳句のお蔭かスパークには動詞が生き生きしていなくてはと思う様になった。季は大事だが、季語は二の次であろう。 *(Mn)*

シー・エム・オー・フクイ　　中島　孝　*Nj*

★前回報告以降、**岩崎　徹**(391)様よりカンパを頂戴しました。また、**松本 達二郎**(392)様より年末に引き続きご寄付を頂戴しました。有難うございました。不一

☆ Kasei-Tsûshin CMO (*Home Page*: **http://www.mars.dti.ne.jp/~cmo/oaa_mars.html**)
『火星通信』#331 (25 May 2007) 編集：**南　政次(*Mn*)、村上 昌己(*Mk*)、中島　孝(*Nj*)**
西田 昭德(*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：**東亞天文学会 OAA　火星課 Mars Section**
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