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WE here treat the one-month period

from 16 April 2006 (λ=040°Ls) to 15 May 2006 (λ=053°Ls)

in which the apparent diameter δ went down from 5.3" to 4.6". However the apparent declination was still so high (seen from the NH) from +25° to +23° that the markings, bright and shadowy, were caught just before and after the sunset. The central latitude φ moved from 2°N upto 10°N, and so the npc became clearer than before. The defect of illumination was also decreasing (phase angle ι=34° down to 30°).

On 18 Apr, the cherry trees on the top of the Asuwa-yama (where our Observatory is located) were still in full bloom, but on the occasion of the observations on 24 Apr, they were already out of bloom and with sprouted leaves. On 28 Apr, temperature was 16°C inside the dome at the sunset time. The planet was caught at 18h JST, and the Sun set from a ridge of the western mountain at 18:25 JST. The weather has been still abnormal. It was reported the meteorological statistics from 1 May to 20 May this year proved that the sunny time was quite less than the average year (68% in Tokyo, 52% in Fukuoka).

♂……今回は **16 April 2006 (λ=040°Ls)** から **15 May 2006 (λ=053°Ls)** の一ヶ月間を扱う。この間、視直径δは5.3"から4.6"に落ちた。然し、未だ視赤緯は+25°から+23°であるから、日没時には相當高く、模様は見える。中央緯度φは2°Nから10°Nに動いて、北極冠は見易くなっている。欠けもι=34°から30°に戻った。

18Aprの觀測の時は足羽山の櫻は滿開であったが、24Aprには葉櫻であった。月末28Aprにはドームに入いると16°Cもあり、随分と躯は楽になった。この日は天頂に薄雲もなく日没前18hJSTに火星を捕捉出來た。18:25JSTに陽は西の山に隠れた。五月のGWにはNj氏、Ns氏と3日から7日まで掛かって溜まったCMOを印刷・丁合し、發送出來た(七號分、144頁)。尚、氣候は回復しているとは言えず、1日から20日迄で日照時間は東京で平年の68%、廣島も同じくらい、福岡は52%であったそうである。

♂……The observations were reported by the following 9 members. However we should add and report later the images made by Damian PEACH (***DPc***) who observed at Barbados from 8 Apr to 25 Apr (ω=150°W~340°W)(see LtE). Yukio MORITA (***Mo***) has also several images which he has not yet processed. We are also waiting the images made by Bill FLANAGAN (***WFl***) in September 2005 (as well as October) to review.

♂…… 觀測者は九名に減った。然し、LtEにあるようにピーチ(DPc)氏が8Aprから25Aprまでバルバドス島で撮った像(ω=150°W～340°W)が送られてくる筈で、これは今後の追加報告になる。森田(Mo)氏も他に未處理の像をお持ちである。他にフラナガン(WFl)氏のSept、Oct2005の畫像のレヴューも済んでいない。

AKUTSU, Tomio 阿久津 富夫 (*Ak*) 菲律賓 Cebu, the Philippines

1 CCD Image (3 May 2006) *f*/35⊗20cm SCT with a ToUcam

AMADORI, Vittorio ヴィットリオ・アマドリ (*VAm*) 義大利 Soiano del Lago, Italia
2 *RGB* + 3 *R (IR)* Images (22*, 23, 24 April 2006) 20cm spec* | 27cm spec with Vesta Pro

ANDERSON, David デヴィッド・アンダーソン (*DAd*) 南卡羅萊納 nr Greenwood, SC, USA
1 Set of CCD Images (19 April 2006) *f*/48⊗33cm spec with ToUcam 740

HEFFNER, Robert ロバート・ヘフナー (*RHf*) 名古屋 Nagoya, Aichi, Japan
1 Colour CCD Image (5 May 2006) *f*/60⊗28cm SCT with Lu075C

MAKSYMOWICZ, Stanislas スタニスラス・マクシモヴィッチ (*SMk*) 法國 Ecquevilly, France
7 Sets of Drawings (17, 22, 25, 28 April; 2, 4, 13 May 2006) 270,420×15cm refractor

MELILLO, Frank J フランク・メリッロ (*FMl*) 紐約 Holtsville, NY, USA
1 *R* Image (20 April 2006) 20cm SCT with Starlight Xpress MX 5

MINAMI, Masatsugu 南 政 次 (*Mn*) 福井 Fukui, Fukui, Japan
37 Drawings (18, 24, 25, 28 April; 2, 3, 5, 11, 14 May 2006) 400,600,630×20cm Goto ED refractor*
*Fukui City Observatory 福井市自然史博物館天文臺

MORITA, Yukio 森田 行雄 (*Mo*) 廿日市 Hatsuka-ichi, Hiroshima, Japan
3 Sets of *RGB* Images (4, 5 May 2006) *f*/50⊗25cm spec with Lu075M

NAKAJIMA, Takashi 中 島 孝 (*Nj*) 福井 Fukui, Fukui, Japan
8 Drawings (2, 4, 5 May 2006) 400, 600×20cm Goto ED refractor*
* Fukui City Observatory 福井市自然史博物館屋上天文臺

PELLIER, Christophe クリストフ・ペリエ (*CPl*) 法國 Seine-St-Denis, France
3 Sets of *RGB* Images (17, 22, 26 April 2006) *f*/65⊗21cm Mewlon with Lu075M

♂·····**Key Observations:** There were made several important observations typical of the present Martian season. The first one is the B image obtained by PELLIER (***CPl***) on 26 Apr (λ=045°Ls) at ω=278°W which recorded a misty broad band running from the evening to the morning occupying the band of a width of 25°N~05°N (equatorial band mist): **http://www.astrosurf.org/pellier/M060426-CPE**. Secondly, on 17 Apr (λ=041°Ls), MAKSYMOVICZ (***SMk***) and ***CPl*** observed a thick morning mist at Chryse respectively at (ω=359°W, 007°W) and at (ω=004°W). Third, the evening Chryse was also misty whitish bright on 3 May (λ=048°Ls) as observed by AKUTSU ***(Ak)*** at ω=084°W, as well as on 4 May (λ=048°Ls) by MORITA (***Mo***) at ω=067°W, 073°W. Since the morning Tharsis was also whitish bright, it was possible the mists at the both side should have been connected (***Mo***'s B should be said poor in this point depending on the terrestrial atmospheric condition). On 5 May (λ=048°Ls), ***Mo*** took again at ω=054°W, and at Fukui NAKAJIMA (***Nj***) and the present writer (***Mn***) visually observed and checked the mists at ω=055°W(*Mn*), 060°W(*Nj*), 065°W(*Mn*). The final observation showed that the evening Chryse mist was linked with the morning Tharsis mist. On the same day HEFFNER (***RHf***) obtained a contrasty image at ω=058°W. Here, since this must turn out to be one of the main themes to observe in the coming 2007 and 2010 apparitions, we give an explanation about the seasonal

♂·····**Movement of the Moist Air on the NPR to the Equatorial Band:** The whitish mist at the equatorial region (ebm) indicates the activity of the water vapour on the northern hemisphere: First the northern season is going to change from spring to summer, and already at the end of April *Ds* (the latitude of the Sub-Solar point) read 18°N, and therefore the Sun does not sit whole day at a considerable part of the north polar region (npr). The Martian atmosphere is so thin that the whole day lit npr is easily made warmer up than the equatorial band region which receives the cold night every day. The moist air mass then rises from the water-icy npc area, and goes up southward to the equatorial band. On the way the air mass gets on the easterly caused by the Coriolis force to stay longer at the day time zone and remains warmer, while as it goes further to the equatorial band the air mass is caused rather cooled down because the Coriolis effect vanishes there, and we are eventually led to see the misty belt

along the equatorial band. This phenomenon should be weakened before the northern autumnal equinox when the equatorial band is to be warmed up enough. See CMO #200 (25 Feb 1998 issue) p2232 where the phenomenon in 1997 was reviewed; - 1996/97 Mars Sketch (2) - "*Movement of Warm, Moist Air from the Arctic Area to the Equatorial Band*" (recorded in the following CMO-Web Site: **http://homepage2.nifty.com/~cmo/97Note02.htm**)

As examples of the observations, the article shows that the one made by ***Mn*** on 13 Dec 1996 (λ=051°Ls) at ω=036°W~ might have been a first one in 1996 showing a misty belt from the evening Thymiamata to the morning Tharsis. Also the images are found there made by Gianni QUARRA (***GQr***) on 31 Jan 1997 (λ=072°Ls) at ω=035°W, and on 9 Feb 1997 (λ=076°Ls) at ω=300°W, a drawing by Toshiaki HIKI's (***Hk***) on 20 Feb 1997 (λ=081°Ls) at ω=046°W, and also the image made by the HST on 30 Mar 1997 (λ=097°Ls) at ω=285°W. The width of the ebm on the HST image looks to occupy Φ=05°S～20°N. A recent image was given by the MGS/MOC in 2004 at λ=053°Ls, which will be cited in this issue at another place where the ebm at 2 o'clock PM occupies 05°N~15°N on Syrtis Mj. We further note that an additional article in CMO #204 (25 June 1998) at p2285 shows two other visual observations; one by SIEGEL (***ESg***) on 6 Apr 1997 (λ=101°Ls) at ω=101°W and the other by ISHADOH (Id) on 24 May 1997 (λ=123°Ls) at ω=275°W (1996/97 Mars Sketch (6)： Supplement (I) in the CMO-Web Site it is recorded in **http://homepage2.nifty.com/~cmo/97Note06.htm**).

Taking these observations into account, we can see that ***CPl***'s B example detected on 26 Apr 2006 (λ=045°Ls) at ω=278°W is a highly appreciable record. We here note that another HST result in 1997 showed a weakening of the ebm already at λ=146°Ls.

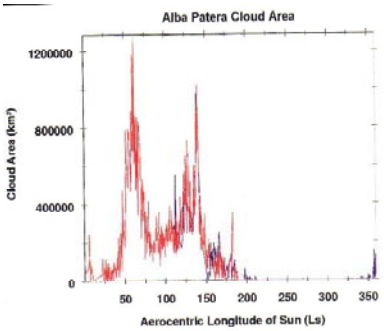
Recently the mist along the equatorial band is sometimes called ECB, while an earlier but excellent guidebook which was authored by T DOBBINS, D PARKER and C CAPEN in 1988 (entitled "*Observing and Photographing the Solar System*" Willmann-Bell, Inc) shows a blue light drawing at p72 made by Chick CAPEN on 23 April 1965 (λ=100°Ls) at ω=350°W, and its caption employed the terminology "*equatorial band cloud*." Therefore EBC or ebc if abbreviated. However in Int, it does not appear like any white cloud, and so we don't regard it as Cloud but as Mist. So we used EBM or ebm in the above-cited articles.

Now we should be aware that by the time when the warm moist air reaches the equator it must come across several places which may freeze down the water vapour particles of the air mass. Most distinguished ones are the summits of such Montes like Olympus Mons and Elysium Mons. That implies that the season has come of the orographic clouds. According to the classical article of SMITH & SMITH (*Icarus* **16** (1972) 509), both of the evening clouds at Olympus and Elysium Montes are *very weak* from λ=000°Ls to λ=050°Ls, but become very active after λ=060°Ls. A more recent article which was given from the MGS/MOC result during the period from June 2000 to July 2001 (J L BENTON and others: *The seasonal behavior of water ice clouds in the Tharsis and Valles Marineris regions of Mars: Mars Orbiter Camera Observations*, *Icarus* **165** (2003) 34), the orographic cloud activity at Olympus Mons resumes from λ=025°Ls, and becomes stronger around from λ=050°Ls, and attains a peak at λ=085°Ls ~120°Ls (the activity at Ascræus Mons is similar, but shows a small peak at λ=030°Ls).

At present, since we don't have enough observable time each day to chase any area long, and furthermore the observers are not scattered globally, no compilation of data is expected concerning the limb side observation of Tharsis and other areas. Just ***Mn*** was able to watch at ω=151°W, 161°W, 171°W on 24 Apr (λ=043°Ls), and observed that the northern Tharsis was slightly bright. In this sense,

♂·····**Alba Patera** should be another case. It is located at around Φ=40°N (north of Olympus Mons) and hence it must have been affected by the southward going water vapour though it is not so high plateaux. We here cite Figure 6 of the article by Jennifer BENTON and others (above cited) where the black line shows the data from March 1999 to May 2000, and the red line describes the graph at the period from June 2000 to July 2001 - until just before the great dust storm destroyed the usual meteorology on Mars). This shows that the afternoon Alba Patera is

also whitish cloudy from around λ=050°Ls and attains its first peak at around λ=060°Ls. As reported in the preceding issue, ***CPl*** detected the ground-lit Alba Patera on 5 Apr (λ=035°Ls) at ω=113°W & 116°W, and so we should say it was in a delicate position. Nobody is sure if it could have been misted at a more evening side.



The whitish bright Alba Patera was once chased by the Japanese members in 1995: Its white appearance was detected by MURAKAMI (***Mk***) at λ=051°Ls on 26 Jan 1995 (λ=051°Ls, ω=140°W, φ=20°N, δ=13.3", ι=14°), though it was not detected on the preceding 25 Jan. A full record was published in CMO #179 (25 Sept 1996) at p1895-- 1994/1995 Mars Note (13) -*On the White-Cloud Activity of Alba Observed at the End of January 1995 at 051°Ls*). The following Web Site records the article: http://homepage2.nifty.com/~cmo/95Note13.htm

This time, at Fukui this area was especially watched on 25 Apr (λ=044°Ls) at ω=130°W~, 28 Apr (λ=046°Ls) at ω=106°W~, (by ***Mn***), and on 2 May (λ=047°Ls) by ***Nj*** and ***Mn*** at ω=084°W, 089°W ~, but no explicit result was obtained. Seeing was poor and the δ must have been not enough.

♂·····**Libya Cloud:** Since the phase angle ι was still large, the observation of the limb side was quite limited, but the Libya cloud belongs to the ebc and so interesting at this season. ***CPl***'s images on 22 Apr (λ=043°Ls) show the Libya evening cloud in G (ω=317°W) and in B (ω=319°W). ***Mn*** observed it on 14 May (λ=053°Ls) at ω=326°W, 335°W, 345°W et al.

♂·····**Concerning the Morning Mist at Thymiamata:** The morning mist at the area from Thymiamata to Chryse belongs also to the ebm, and ***Mn***'s personal (just Japanese side) data in 1993 show that it first came out on 3 Mar 1993 (λ=047°Ls, φ=5°N, δ=10.0", ι=32° after opposition) and then became conspicuous. In 1995, it was observed frequently before opposition on 2 Jan 1995 (λ=040°Ls, φ=22°N, δ=11.2", ι=28°) and on 7 Jan 1995 (λ=042°Ls, ι=26°), and so the season was quite similar to ***CPl***'s this time (on 17 Apr 2006 (λ=041°Ls)). Just however in 1991, it was already recorded on 7 Jan 1991 (λ=001°Ls), and on 8 Jan 1991 (λ=002°Ls, δ=12.8", ι=29° after opposition), and so the equatorial band at Chryse (lower usual region) should be watched even at the spring and the autumnal equinox.

♂·····**Otherwise:** AMADORI (***VAm***) produced sets of RGB images of the Syrtis Mj area on 23 Apr (λ=043°Ls) at ω=303°W, and on 24 Apr (λ=044°Ls) at ω=290°W; but its B channels do not show the ebm. This must depend on the terrestrial atmospheric conditions, and so we cannot judge. We are asking that in B the desert area should be *dark* if not all are covered by the water vapour. On the other hand ***VAm***'s Wr#25 image on 22 Apr (λ=043°Ls) at ω=313°W was detailed for δ=5.1". Especially the area of Utopia is interesting in contrast with the npc, but it lacks any B image.

The npc was shot and drawn clearly in any observation. The sph was for example seen on the image by ANDERSON (***DAd***) on 19 Apr (λ=041°Ls) at ω=082°W and by ***CPl*** on 22 Apr (λ=043°Ls) at ω=319°W (see B) et all, while not enough images are there to trace the whole angles. ***Mo***'s images on 4 May (λ=048°Ls) at ω=067°W, 073°W look to show an Argyre cloud.

By the way, ***Mo***'s images on 5 May (λ=048°Ls) at ω=054°W, and ***RHf***'s at ω=058°W suggest a slit at M Acidalium. This reminds us of the slit *Novus Pons* (so named by J WARELL; ***JWr***) found by E SIEGEL (***ESg***) in 1993. This time it seems that the area of Niliacus L appears dark and broad together with the enhanced Nilokeras.

♂·····**Remark:** This apparition and also in 2007 the planet Mars shined and will shine high up near the zenith seen from the Northern Hemisphere. But we are of the opinion that no one should use the diagonal prism at the ocular part if one is no Leonardo da Vinci. Somebody says it will give a new sensation, but it will be no more than to repeat the trace back to the Schiaparelli times. It may be generally difficult to give the exact composition balance as well as even to find the orientation of the defect of illumination.

♂……**重要な観測**：今回は重要な観測が幾つかなされた：第一はペリエ(CPl)氏が26Apr(λ=045°Ls) ω=278°WのB像http://www.astrosurf.org/pellier/M060426-CPEで朝から夕方へ略25°N~05°Nの幅で亙る霧の帯(赤道帯霧)を紀録したことである。第二は17Apr(λ=041°Ls)でマクシモヴィッチ(SMk)氏(ω=359°W 007°W)とCPl氏(ω=004°W)が朝のクリュセで濃い霧を観測したこと、第三には3May(λ=048°Ls)にω=084°Wで阿久津(Ak)氏が、4May(λ=048°Ls)にはω=067°W、073°Wで森田(Mo)氏が夕方のクリュセが水蒸氣で靄っていることを紀録したことである(Mo氏の5May)でも然り。多分これは朝のタルシスまで續いていると思う(B光は大氣の状態に影響されるのでMo氏のBは不利だったのではないかと思う)。尚、5May (λ=048°Ls)にはMo氏のω=054°Wがあり、中島(Nj)氏と筆者(Mn)も眼視に依ってω=055°W(Mn)、060°W(Nj)、065°W(Mn)で確かめている。後者では赤道帯全體に連なっていると見ている。この日にはヘフナー(RHf)氏のω=058°Wのカラー像がある(IRはブロックしているらしいが、Bチャンネルでは暗色模様が出過ぎて、判別が着き難い)。そこで、これは來るべき2007年、2010年の接近にも關わることであるから、**解説** として

♂……**北極域水蒸氣の赤道帯への移動**に就いて述べておく：赤道帯霧については略述すれば次のように考えられる。現在、火星面北半球では春分も遙か過ぎて夏に向かっており、四月下旬にはDs(Sub-solar點の緯度)が18°Nに達しているから、可成りの北極域では太陽が沈まない譯である。火星の大氣は稀薄な爲この時期夜間の長い赤道帯よりも昼間だけの北極域の方がより暖められ、更に北極域から水蒸氣を含んだ氣團が上昇し、赤道帯の方に移動する。その際中緯度ではコリオリ力によって偏東風に乗って、昼の滞在時間が長くなり、温度は蓄積される。然し、赤道帯に達するとコリオリ力はなくなり、ここでは蓄積が劣り冷却化が速まり、赤道帯に朝霧夕霧が強く見られるようになり、朝と夕方を結ぶ霧の帯も出てくる譯である。勿論、赤道帯が暖められる秋分前にはこの現象は無くなる。CMO#200(25Feb1998號)p2232では1997年のこの現象の觀測に關して累述しているので參照されたい：1996/97 Mars Sketch (2) -- 北極地から赤道帯への水蒸氣の移動と赤道帯霧(Movement of Warm, Moist Air from the Arctic Area to the Equatorial Band)：(Webは http://homepage2.nifty.com/~cmo/97Note02.htm)。

其處で採っている例では、13Dec1996(λ=051°Ls)ω=036°W~での夕方のテュミアマタから朝方のタルシスまでの例(筆者Mn)の他、クアッラ(Gianni QUARRA: GQr)氏の31Jan1997(λ=072°Ls)のω=035°W、9Feb1997 (λ=076°Ls)ω=300°W、日岐(Hk)氏(眼視)の20Feb1997(λ=081°Ls)ω=046°W、HST30Mar1997 (λ=097°Ls) ω=285°W等が例として擧がっている。霧帯の幅は30Mar1997のHSTの場合Φ=05°S～20°N程である。最も近い過去例としては別項に引用する2004年のMGSによるλ=053°Lsの合成像においてもシュルティス・マイヨルのところを見ると、午後2時の霧がシュルティス・マイヨルの05°N~15°Nの幅に集中しているのが分かるだろう。尚、追加記事CMO#204 (25 June 1998)p2285：1996/97 Mars Sketch (6)：Supplement (I)(Webでは http://homepage2.nifty.com/~cmo/97Note06.htm)にはシーゲル(ESg)さんの眼視による6Apr1997 (λ=101°Ls)ω=101°W、伊舎堂弘(Id)氏による24May1997(λ=123°Ls) ω=275°Wの例が擧がっている。

これらを鑑みても、上のCPl氏の26Apr(λ=045°Ls)ω=278°WのB像は早い記録で重要である。なお、1997年のHSTの觀測ではλ=146°Lsでは既に弱くなっているという例がある。

尚、最近はこれをECBと呼ばれることが多いようだが、文獻としては早いT DOBBINS, D PARKER & C CAPEN著の"*Observing and Photographing the Solar System*"(1988年、Willmann-Bell, Inc)のp72ではケープン氏の23Apr1965(λ=100°Ls)のスケッチが載っていて、キャプションにequatorial band cloudとなっているので、われわれはこれに随う。從ってEBCであろう。但し、Intでは白雲のように強く確認されるものではないのでCloudよりMistの方が好いと思う。

扨て、實は暖かく湿氣の多い水蒸氣が南下(?)するとき、赤道までに出逢う冷却點が複數ある。最も顕著なのはオリュムプス・モンスやエリュシウム・モンスの頂上である。古典的なSMITH&SMITHの論攷(*Icarus* **16** (1972) 509)では両者ともλ=000°Lsからλ=050°Ls邊りまでvery weakだが、λ=060°Ls過ぎにはvery activeになる。June2000~July2001のMGSに據る結果(J L BENTON and others: *The seasonal behavior of*

water ice clouds in the Tharsis and Valles Marineris regions of Mars: Mars Orbiter Camera Observations, Icarus **165** (2003) 34)によれば、λ=025°Ls邊りから山岳雲の活動が見られ、λ=050°Ls邊りから強くなり、λ=085°Ls~120°Lsでピークになる(アスクラエウス・モンスも似ているが、これはλ=030°Ls邊りで小さいピークを持つ)。現在では觀測時間が短くなり、而も觀測點が地球上にグローバルには散らばっていないので、好い角度の機會が少なくなったが、筆者(Mn)は24Apr(λ=043°Ls)ω=151°W、161°W、171°Wでタルシスが縁で明るいと見ている。序でに

♂……**アルバ・パテラの場合**を述べる。アルバ・パテラはΦ=40°Nにあって、オリュムプス・モンスより北であるから、然程の高地ではないが、矢張り雲が出やすい。先のJennifer BENTON達の論攷でのFig6を英文の部で引用してあるが(赤色線は2000年六月から2001年黄雲の出る直前2001年七月まで、黒線はその前の期間1999年三月~2000年五月)、これによると、矢張りλ=050°Ls前後から強くなり、λ=060°Ls邊りでピークになる。前號で報告したCPl氏の5Apr(λ=035°Ls)の優れた像ではアルバ・パテラの明るさはB像には出ない爲に地肌によっているとしたが、時期的には微妙なところであった。時期的に早いか、もう少し夕方で撮るべきであったか、というところか。ところで1995年にはアルバ・パテラの白雲が可成り追跡された。最初の觀測は村上(Mk)氏に依るものでλ=051°Lsであった(26Jan 1995(λ=051°Ls、ω=140°W、φ=20°N、δ=13.3"、ι=14°)。25Janには見えていない。1995年の紀録についてはCMO #179 (25 Sept 1996) p1895--1994/1995 Mars Note (13)--1995年一月のアルバの白雲活動(051°Ls): CMO-Webでは次に収録されている： http://homepage2.nifty.com/~cmo/95Note13.htm

そこで、今回福井で筆者(Mn)が25Apr(λ=044°Ls)ω=130°W~、28Apr(λ=046°Ls)ω=106°W~、2May(λ=047°Ls)にはNj氏とMnがω=084°W~ω=000° W~でこの一帶を狙ってみたが、峻別できなかった。シーイングは然程好くないし、今回は既に視直徑が小さすぎるかも知れない。

♂……**リビュア夕雲：** 未だιが大きくて夕雲に就いては制限があるが、リビュア夕雲も赤道帶に現れるもので興味がある。CPl氏の22Apr(λ=043°Ls)でのG光(ω=317°W)やB光(ω=319°W)には明るく出ている。筆者は14May(λ=053°Ls)ω=326°W、335°W、345°Wなどで見ている。

♂……**テュミアマタの朝霧に就いて**：テュミアマタからクリュセに掛けての朝霧も上に述べた赤道帶に現れる霧の濃い部分だが、筆者の1993年の衝後の紀録では3Mar1993(λ=047°Ls、φ=5°N、δ=10.0"、ι=32°)の觀測を皮切りにその後 顯著になって行くし、1995年の衝前の場合も2Jan1995(λ=040°Ls、φ=22°N、δ＝11.2"、ι=28°)や7Jan1995(λ=042°Ls、ι＝26°)で捉え始めており、季節はほぼ今回のCPl氏等の17Apr (λ=041°Ls)に匹敵する。ただ、1991年には衝後の7Jan1991(λ=001°Ls)、8Jan1991(λ=002°Ls、δ=12.8"、ι=29°)でも捉え始めているので、ここの赤道帶は春分、秋分にも注意すべきである。

♂……**その他の觀測**：アマドリ(VAm)氏は23Apr(λ=043°Ls)ω=303°W、24Apr(λ=044°Ls)ω=290°Wでシュルティス・マイヨル域を撮っているが、B分解では赤道帶霧の描寫がない。未だその時期に達していないのか、描寫が悪いか分からない。B光像はIRやGの漏れを防いで全體に暗くならなければおかしい。一方、VAm氏のWr#25による22Apr(λ=043°Ls)ω=313°Wはδ＝5.1"としては詳しい描寫をウトピア附近で與えている。勿論この時期、微細構造よりB光の方が大切である。

北極冠はどの觀測でも明確である。南極雲はアンダーソン(DAd)氏の19Apr(λ=041°Ls)ω=082°Wや、CPl氏の22Apr(λ=043°Ls)ω=319°WのB光などでも稍鈍いが出ている。ただ、全角度を網羅する程の觀測はない。Mo氏の4May(λ=048°Ls)のω=067°W、073°Wではアルギュレ雲の方が明るくが出ていると思われる。尚、Mo氏のこの像や特に5May(λ=048°Ls)のMo氏のω=054°WやRHf氏のω=058°Wではマレ・アキダリウム邊りの切れ込みが1993年のシーゲル(ESg)さんの「ノウゥス・ポンス」を彷彿とさせる。多分上部はニリアクス・ラクスとニロケラスがくっついて大きく見えるのであろう。

♂……In the next issue we shall review the observations made during a one-month period from 16 May 2006 (λ=053°Ls, δ=4.6") to 15 June 2006 (λ=066°Ls, δ=4.2").

南 政次 M MINAMI

■CMO 2005 Mars Note (2)

Tharsis Network When ι Is Large

位相角とタルシスの陰翳

■ 南 政 次 M MINAMI

THE low albedo areas on Mars may appear as dark markings because of their darkness of the soil on the surface, but sometimes contain temporarily some dark markings caused by the shadows if the phase angle is large. Originally the albedo is defined to depend not only on the geometrical factor but also on the phase factor. The factor which depends on the shadows should not however be obvious when the planet is near at opposition. In this sense, when the phase angle ι is large we are to be able easily to witness an interesting network (for instance at Tharsis) made of dark spots or dark segments. However that ι is large implies that the planet is very far with a smaller angular diameter, and so usually nearly impossible to check the networks even by ccd. Rare cases however visit when the cases of so-called great apparitions visit. In 2003, we had a good opportunity to describe the networks, but unfortunately any image concerned looked to have been excessively enhanced, and it was unpleasant to do the work to check. However this apparition in 2005 we had several nice and moderate images to check.

Here we shall review the case of the Tharsis district: When ι was from 45° to 40° (this apparition, in mid-July 2005 the phase angle was maximal at just over ι=47°), Tharsis was observed from the Asia in mid-August 2005, and then from Europe at the end of August 2005, and finally at America at the beginning of September 2005.

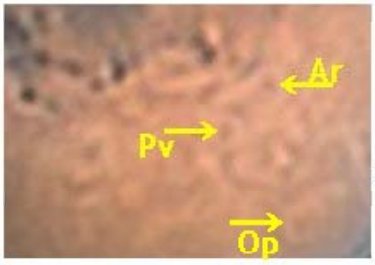
As representatives, we here pick out **1)** Robert HEFFNER (***RHf***)'s image produced on 18 Aug (λ= 271°Ls, ι=45°, δ=12.8") at ω=097°W, **2)** Damian PEACH (***DPc***)'s image on 29 Aug (λ=278°Ls, ι= 43°) at ω=099°W, and **3)** Ed GRAFTON (***EGf***)'s image on 9 Sept (λ=285°Ls, ι= 40°) at ω=109°W, and here we show the trimmed images. It should be noted however that in Europe and the US, there were obtained similar nice images by PELLIER (***CPl***), TYLER (***DTy***), DICKINSON (***WDc***), CHVEZ (***RCv***), TATUM (***RTm***), Don PARKER (***DPk***) and others.

18 Aug 2005
λ=271°Ls
ι=45° δ=12.8"
ω=097°W φ=15°S
R HEFFNER

29 Aug 2005
λ=278°Ls
ι=43° δ=13.8"
ω=099°W φ=13°S
D PEACH

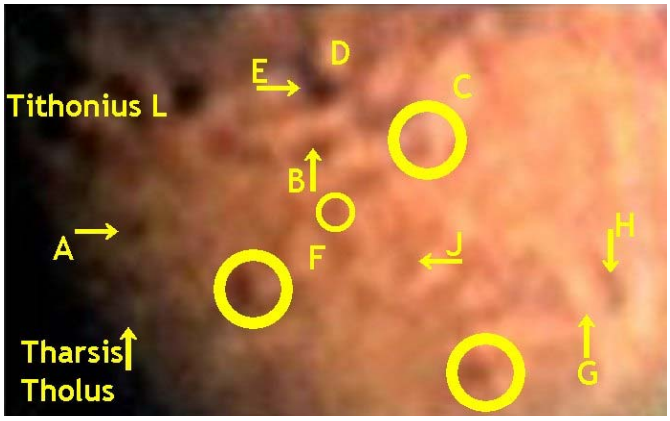
9 Sept 2005
λ=285°Ls
ι=40° δ=15.1"
ω=109°W φ=12°S
E GRAFTON

As a first example, we may easily see that Olympus Mons and Ascræus Mons are thick on the images and it is apparent they are because of the shadows (brownish on ***DPc***'s) at the western flanks of Montes. In contrast with these, Pavonis Mons and Arsia Mons are rather obscure: This may be because the former two are quite higher than the latter if we count their heights from the feet of the mountains. To compare, we here cite a clip of ***EGf***'s image on 16 Oct (λ=307°Ls, ι= 20°) at ω=093°W where Olympus Mons and Ascræus Mons have become rather obscure (despites still ι= 20°), and contrarily Pavonis Mons (Pv) and Arsia Mons (Ar) turned to be easily discriminated because of the albedo ring of the bigger calderas.



16 Oct 2005
λ=307°Ls
ι=20° δ=19.5"
ω=093°W φ=12°S
Ed GRAFTON

Before turning to other markings, we should note that if any dark marking stays dark even when ι becomes smaller, it must be a true dark marking. Spot A on the schematic map (next page: made from ***EGf***'s case on 9



Sept) is considered to be situated near at Fortuna Fossæ, but the place described by the MGS/Mola map does not show any elevation, and so may simply be a low albedo place. Just the area indicated by → shows a steep slope, and so there may be combined with a shadow. The area around this spot, however, is generally flat (slightly inclined toward NW) and becomes largely bright just like an aureole near at opposition. See the map of MGS/MOC: In this case, spot A is conspicuous because of the contrast. Spot B (may be quite dark on ***DPc***'s image) is located on the area where no elevation and no dark marking are on the Mola and MGS maps. So this is not any crater. Just the MGS map however shows a faint shadow and so this must have been enhanced to disguise itself as a dark spot. Incidentally ***EGf***'s image in 2003 on 22 July 2003 (λ=226°Ls, ι= 29°, δ=20.5") at ω=081°W also shows this point to be quite dark, while MGS com-

posite image taken in October 2003 (at λ=288°Ls) does not particularly show B spot. The MGS image was the one released on 6 Sept 2005 (http://www.msss.com/mars_images/moc/2005/09/06/). This map also shows the evening cloud on Arsia Mons and Ascræus Mons as well as at Syria Planum.

We here note incidentally that the Mola map is read off from

http://pubs.usgs.gov/imap/i2782/i2782_sh2.pdf

and http://www.google.com/mars/ is also convenient. MGS/MOC map here is from

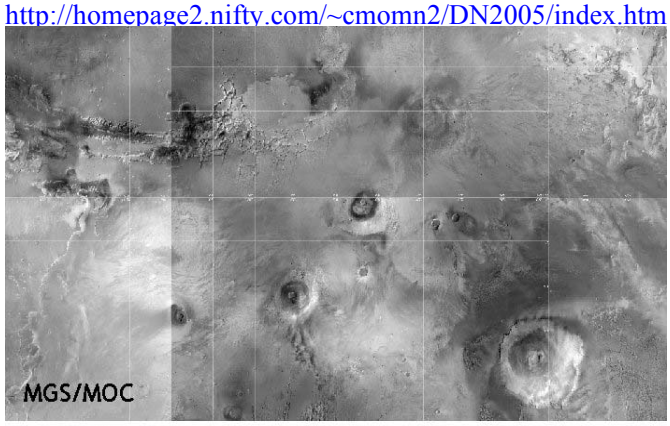
http://mars.jpl.nasa.gov/mgs/msss/camera/images/moc_atlas/index.htm

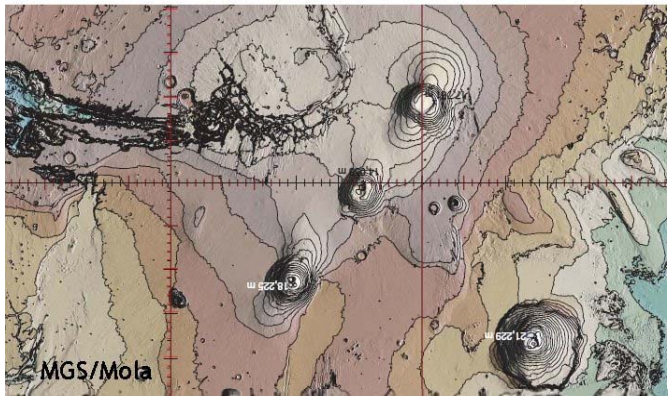
The Martian nomenclature can be read from

http://planetarynames.wr.usgs.gov/images/mc9_mola.pdf

Now the place named C looks to correspond to the eastern flank of the southern extension of Arsia Mons, and is considered to reflect the sunbeam. Note that ***DPc***'s B image on 29 August 2005 shows a cloud (this was detected also by ***CPl*** et al from 26 August). Already the activity of the evening roll cloud at Arsia Mons was tending to reach the second peak (cf CMO #309; 2005 Report #10. It was apparent from July 2005: See also Director's Notice #02:

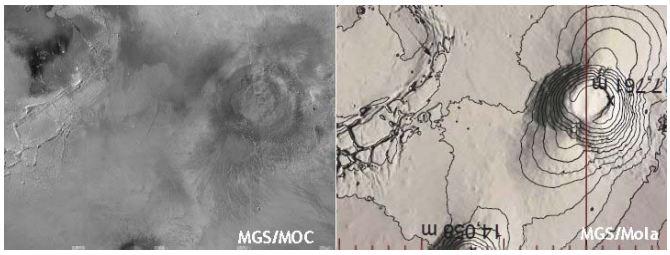
http://homepage2.nifty.com/~cmomn2/DN2005/index.htm





Next, D must be related with Claritas Fossæ. The dark marking indicated as E is Phœnicis L and a true dark marking: This is not shown on Mola; that is it is free from a steep elevation. The bright band between B and E is Noctis Labyrinthus. The relation between Phœnicis L and Noctis Labyrinthus is illustrated here in an enlarged couple of MGS cuttings (next page).

Now we turn to point F: The reason why F is bright is because it is located at the eastern slope of the ridge to the south of Ascræus Mons. The dark segment is a



boundary. Especially the dark marking toward SE reflects the dark marking near Pavonis Mons described by the MGS map.

The light and shade around J must depend on the albedo as well as on the shadows of Ulysses Patera and Biblis Patera and on the steep slope to the north of them (and Ulysses Fossæ).

These dark and bright markings are all seen also on ***RHf*** and ***DPc*** images. Just a difference is there because of the differences of ω and ι, and on ***EGf***'s Gordii Dormus more clearly appears as a bright ridge, and its SW low land is more apparent. This area is interesting to compare with the elevation map of Mola.

The brushed light broad streak sent from Olympus Mons toward SW (known from the era of Mariner mission), and the lighter broad band boundary which surrounds Alba Patera and its south extension (Ceraunius Fossæ) from south are also seen on the three cases. These depend on slopes. The high albedo also depends on the phase angle, but not simple because low ι does not imply the vanishing of the brightness.

Finally we should recall MGS works at around 2 o'clock PM. In the present case, ι is large and so the areas in question are located on the afternoon side. In the case of ***RHf***, since ι=45°, the CM corresponds nearly to 3 o'clock PM line. Since LCM is ω=097°W, Ascræus Mons (Ω=104°W) is at 2.5h PM and the following Arsia Mons (Ω=120°W) is nearly 1.5h PM.

We shall close by pointing out that ***DPc***'s another set of images on 28 Aug 2005 (λ=277°Ls, ι=43°) at ω=134°W shows Olympus Mons (Ω=133°W) near the CM. The phase angle ι was still large and it well proves that the west side of Olympus Mons is shadowy and the eastern flank bright.

火星面の見かけ上の暗色模様には土壌の色合いの違いによる暗影のほか、他の要因、例えば陽の蔭に因って構成される文字通りの暗影があるはずである。然し、後者は衝の頃には然程顕著ではなくコントラストが低くなる。その點で、位相角ιの大きいときにこのような蔭による斑點や線分を見ることがより可能になる。但し、ιが大であることは衝から遠いということで、普段は視直徑が小さく斑點や線分の詳細の觀察は無理である。然し、大接近の時はこれが許される。2003年にもそういう機會があったわけで譯が、どういう風か氣色の悪い強調畫像が多く、調べるだけでも氣分が悪かったが、今回2005年接近では程良い畫像が作られる様になって好例が見つかっている。

ここではタルシス地方の陰翳を追うが、ιが45°から40°の範囲で(今回は七月上中旬には最高ι=47°を越えている)、八月中旬から九月上旬に掛けてこの地方を、東洋、ヨーロッパ、アメリカ大陸の順で追えた。

ここでは、代表として18Aug(λ=271°Ls、ι=45°) ω=097°Wのヘフナー(RHf)氏の畫像、29Aug (λ=278°Ls、ι＝43°)ω=099°Wのピーチ(DPc)氏の畫像、9Sept (λ=285°Ls、ι＝40°)ω=109°Wのグラフトン(EGf)氏の畫像を採り上げ、御免を蒙って切り抜き畫像を並べる。但し、この他にも歐羅巴や美國では良像が得られており、例えば、同じ頃のペリエ(CPl)氏の畫像や、タイラー(DTy)氏、ディッキンソン(WDc)氏、チャベス(RCv)氏、テータム(RTm)氏、それにパーカー(DPK)氏の像等があることは斷っておく。

例としてこれらの像ではオリュムプス・モンスとアスクラエウス・モンスが顕著に暗斑として(DPc氏の場合は茶系色に)見えることは明確である。これらは、兩山が地表より數えてアルシア・モンスやパウォニス・モンスに比べて遙かに高く、從って西側に大きく蔭を落としている事による。ここで比較の爲EGf氏の16Oct(λ=307°Ls、ι＝20°)ω=093°Wからの切抜き畫像を採用したが、既にこの時點(ι＝20°)では寧ろオリュムプス・モンスやアスクラエウス・モンスが不明瞭になり、逆にカルデラの大きいアルシア・モンスやパウォニス・モンスが光環と共に見分け易くなっている。

ここで、他の暗斑や線分を見てみたいが、もしιが小さくなった段階で同じように暗斑が現れる場合は、ほぼ暗色模様と考えられる。EGf氏の9Septの切り抜きから作った模式圖でのAの斑點は

フォルツナ・フォッサエ邊りにあると思われるが、MGS/Molaの圖によると、ここは格別隆起等見當たらず、單に反射能の低い點であろうかと思われる。ただ→で示した様に稍急激な坂がある爲、この蔭が出るかも知れない。尚、この暗斑を囲む領域は稍北西に傾斜しているが、可成り廣く平らで、衝に近附くに聯れて圓環のように邊りは明るくなる。MGS/MOCの火星圖にはそのように現れ、A點はコントラストで際立つ。次にBと記した暗斑(特にDPc氏の像で顕著)はMola圖だけでなく、MGSのMapで見ても殆ど隆起がない。從ってクレーターではない。而も、然程な顕著な暗斑も見當たらない。ただ、後者にはやや、薄暗い箇所があり、これが處理の仕方によっては大バケするのかも知れない。因みに2003年の22July2003(λ=226°Ls、ι＝29°、δ=20.5")ω=081°WのEGf氏の像にもこれは強く見えている。然し2003年十月末(λ=288°Lsで季節上は今回のEGf氏とほぼ同じ)のMGS合成畫像ではこの斑點は遙かに弱い。この圖は6Sept2005に發表されたもの。なお、この圖(λ=288°Ls)にはアルシア夕雲の他にアスクラエウス・モンスやシュリア・プラヌム上に雲が出ている。序でにMolaの圖や、MGSの火星圖、名稱は英文の方のURLでアクセスされたい。

扨て、Cと表示した地點はアルシア・モンスの南側の隆起の東斜面の反射を示していると思う。DPc氏のB像では山岳雲が見られる(これは26Aug以降のCPl氏のB像でも確認できる)。既にアルシア・モンスの夕雲の第二のピークに向かっている(CMO#309の2005 Report #10參照、既に七月から見られ、これについては
http://homepage2.nifty.com/~cmomn2/DN2005/index.htm
のDirector's Notice#02を參照)。

Dはクラリタス・フォッサエと關係すると思う。Eと表示した暗色模様はポエニキス・ラクスでこれはMolaに現れない。つまり高低差に關係なく暗色模様である。尚、BとEの間にある明帶はノクティス・ラビュリントゥスであろう。ポエニキス・ラクスとノクティス・ラビュリントゥス(Labyrinthusは迷路)の關係はもう一組のMGS圖の擴大圖に示す。

一方、F地點が明るいのはアスクラエウス・モンスの南側の隆起に依って齎されたものので、その西の暗色線分はその境界であろう。特に南東の暗色模様はMGS圖でパウォニス・モンスの北の暗色模様を反映している。J邊りの明暗は土壌の色合いに、ウリュッセス・パテラとビブリス・パテラの蔭、それにその北の急斜面、ウリュッセス・フォッサエの地形を反映すると思う。

以上の明暗はEGf氏像だけでなく、RHf氏、DPc氏の像に確認できるが、ωの關係でEGf氏の像にはゴルジイ・ドルスム(dorsumは峰)　が明るく出て、その南西の低地が暗くなっている。この邊りはMGSの圖と高低差を見比べると面白い。

尚、オリュムプス・モンスから南西に流れる明るい太いスジ(マリナーの時代から有名)は三者に見られ、またアルバ・パテラ(これは圖に含まれない)とその南のケラウニウス・フォッサエの高地の尖りを南側に(三角状?に)囲うお馴染みの明るい帶も三者に出ている。

最後に、MGSは午後2時邊りの影像を重ねていることに留意すべきである。但し、今回の例ではιが大きく、問題の箇所は午後に入る。RHf氏の場合、ι=45°であるから、CMは午後3時頃になる。LCMはω=097°Wだから、アスクラエウス・モンス(Ω=104°W)は午後2時半、アルシア・モンス(Ω=120°W)は更にその1時間前で、午後1時半頃ということになる。尚、ιの大きいときオリュムプス・モンス(Ω=133°W)がCM近くにある像としてはDPc氏が28Aug2005(λ=277°Ls、ι=43°)ω=134°Wの像を拵えている。正面のオリュムプス・モンス山塊の西側が蔭、東側は明るく、これが好く描寫されている。■

便　り
Letters to the Editor

●・・・・・・・・***Date: Tue, 25 Apr 2006 02:03:56 +0200***
Subject: Re: Jupiter 22/23 april

Thanks Clay - 25° is still an altitude where good seeing is possible. I had often very good seeing on the 2003 Mars at the same altitude! For me, 20° is the true limit below which good seeing is not possible.

P. Clay Sherrod a écrit :
>Very fine work Christophe, particularly the later image.
>Your low altitude for the planet does not seem to be
>adversely affecting your ability to catch very fine detail.
>Thanks for sending....
>**Clay SHERROD**

○・・・・・・・・***Date: Wed, 26 Apr 2006 23:58:33 +0200***
Subject: Mars on april 26th : ECB detected !

Hi all, some superb seeing tonight :
http://www.astrosurf.org/pellier/M060426-CPE
I think that the B image clearly shows the Equatorial cloud band (ECB). The ECB formed first during northern spring when the water vapor released by the sublimation of the NPC is important enough. It lies not on the equator itself but between the equator and the Lion tropic (on Mars !) at a latitude of 25°N. This is seen on the image, the belt is in the northern hemisphere. I wasn't hoping this detail on a 5" disk... Best wishes

○・・・・・・・・***Date: Fri, 28 Apr 2006 20:07:19 +0200***
Subject: Jupiter, april 27-28th

Hi all, a night with variable seeing from very good to poor. But transparency was very good and the frame rate has gone up to 30 fps with the RG630 filter.
http://www.astrosurf.org/pellier/J060427_28-CPE
The images span the SEB-outbreak longitudes. Note how dark is the EZ now in B light. Hopefully this is a coloration event... Best wishes

○・・・・・・・・***Date: Sun, 30 Apr 2006 12:43:51 +0200***
Subject: Jupiter, april 28/29th 2006

Hi all, again some good conditions for that night. A light jetstream was revealing its presence sometimes as it was deforming the images in a north/south direction, but seeing is always good in that precise orientation.
http://www.astrosurf.org/pellier/J060428_29a-CPE
(RGB images)
http://www.astrosurf.org/pellier/J060428_29b-CPE
(R, G, B, violet)
http://www.astrosurf.org/pellier/J060428_29c-CPE
(R+IR, IR, UV)
Note a long and noticeable blue SEBn at these longitudes. Best wishes

○・・・・・・・・***Date: Sun, 30 Apr 2006 17:13:09 +0200***
Subject: Jupiter maps in April 2006

Hi all, here are a few jovian maps built with WinJupos. Each time color and Red/IR data is compared.
Cylindrical projection :
http://www.astrosurf.org/pellier/J0604mapcylind
I have done polar projections also, these are much rarely seen and allow some good views of the banding pattern in higher latitudes :
http://www.astrosurf.org/pellier/J0604mapsh
(south)
http://www.astrosurf.org/pellier/J0604mapnh
(north)
Curiously the SEBn looks divided in longitude into two equal parts f. and p. the GRS :
- on the following side, a turbulent white clouds activity is running
- on the preceding side, the belt is much quiet but is mostly composed of deeper blue clouds. The south map also nicely shows the SPH. Best wishes,

○・・・・・・・・***Date: Sat, 13 May 2006 22:56:15 +0200***
Subject: Re: Jupiter May 11

Hi David (ARDITTI), Interesting your comments on IR images, I have some things to add -Theses images are not true IR images but R+IR. This makes a difference that probably some of you have already noted, and that I have always seen on my part, because the double band R+IR more than often gives a less steady image than IR alone, but also, surprisingly enough, than R alone. You can see some examples directly on my recent sets of Jupiter images: many of my 630 nm images are not as sharp as my R or IR ones (700 nm). The only explanation I have for this is, the narrower the bandpass, the better the seeing is, all other things equal. I remember Ralf Vanderbergh making some comments last autumn as he was surprised to have a better seeing in blue light than in integrated light (If I'm not mistaken, Ralf ?). This for the same reason...
If this is not the case here, probably we can introduce some more elements. On the same nights than you, I noticed that there was a abnormal worsening of seeing in shorter wavelenghts (G, B...). Thus this was certainly a different "kind" of seeing than usual. The R+IR image has an advantage in that it brings a great quantity of light, but is often plagued by more instability. R alone gives good seeing, excellent resolution, and a good amount of light. IR alone gives better seeing, interesting details on the planet, but poorer resolution and a lower quantity of light. I still can't chose between them that's why I always secure several images of each...
Best wishes,

○・・・・・・・・***Date: Sat, 13 May 2006 23:01:44 +0200***
Subject: Re: Jupiter May 11

A last thing, the dark barges on the NEB (the red spots) are invisible in IR light (and very very weak in a R+IR), but the explanation is not really clear to me - IR light probably sees below that kind of clouds, that must be not very thick... Any elements ?? But as they're important to follow, a visible light image is important is any set (G or R are ok)

Christophe PELLIER (ｸﾙｽﾄﾌ･ﾍﾟﾘｴ *nr* Paris 法)
http://homepage2.nifty.com/~cmons/2005/index_CPI.html

●・・・・・・・・***Date: Wed, 26 Apr 2006 01:44:58 +0100***
Subject: Saturn April 26

These might be my last Saturn images this apparition, as it slides into the twilight. Seeing tonight was good but transparency very low, hence the blue image is very faint.

Things I note are: The faintness of the rings now so far from opposition. The particular faintness of the p ansa in the B: is this an example of the bicolour phenomenon? The brightness of the STrZ in B and G at the p limb particularly, but also at the f limb: is this blueness for the same reason as the N of the planet is blue (ie. cold) c.f. Uranus and Neptune's blue or green colouration?

○・・・・・・・・***Date: Mon, 1 May 2006 14:25:46 +0100***
Subject: Jupiter April 28

A night of good seeing and low transparency (as is often the case). Impressed with the results of my "neighbour" James Jefferson using just a standard colour Toucam and a 125mm telescope, I tried my colour

Toucam again. As can be seen, the results compare favourably with an RGB filtered composite taken later - and with much less processing time.

The sequence of R-IR images (middle line) shows good detail for the altitude, and I have made these into an animation, also attached.

○・・・・・・・・***Date: Thu, 4 May 2006 15:13:06 +0100***
Subject: Jupiter May 02

Some one-shot images with a colour Toucam Pro this time. Also an experiment with different frame rates, going from 10 fps to 15 and 20. 10 fps produces the most natural-looking result with the colour Toucam, whereas with the mono version (essentially the same as the ATK 1HS) I have often used 20 fps to good effect. Presumably this is due to the mono chip's greater sensitivity. The decreased s/n ratio going to the higher framerates, coupled with the Toucam software's auto colourbalance, produces an effect of the surrounding sky going blue.

White spots are visible on the NEB N edge, and one in NN temperate latitudes. A spot is also visible in the

TEN YEARS AGO (129)

----CMO #175 (25 May 1996)----

The opening of this issue was dedicated to an obituary of **Tsuneo SAHEKI** who had passed away on **22 February 1996**. This was written by **Masatsugu MINAMI**, and **Takeshi (Ken) SATO** and **Toshiaki HIKI** also gave their memorial addresses to SAHEKI. **The Obituary** was recorded soon in the CMO-Web Site: http://www.mars.dti.ne.jp/~cmo/175/cmo175.html


Communications in Mars Observations
火星通信 No. 175
25 May 1996
Obituary
Tsuneo SAHEKI (1916~1996)
1539

That implies that this issue (CMO #175) was the first issue that was introduced into the CMO-Web.

この号は、この年の二月22日に他界された佐伯恒夫氏の追悼号である。文頭から四ページにわたり南(Mn)氏による英文の"**Obituary Tsuneo SAHEKI (1916~1996)**"が綴られ、その中には、佐伯氏の火星観測の来歴が詳しく紹介されている。次いで佐藤健氏、日岐敏明(Hk)氏が佐伯氏を偲んで寄稿されている。欄外には*JBBA* **96 (1985) 8**から、佐藤健氏の**Letter**とそれに関して理査・麥肯(RMk)氏のコメントの引用がある。*JBBA*に掲載された**A W WILKINSON**氏の火星図に**Nodus Laocoontis**が描かれたいたことで、その暗色模様の佐伯氏の初検出と命名のエピソードが語られている。

LtEは、**André NIKOLAI, Dan TROIANI, Jim BELL, Wolfgang MEYER, Alan HEATH, Don PARKER, Detlev NIECHOY,** 林啓生**(Qi-Sheng LIN**、臺灣**)**, 赤羽徳英(飛騨天文台)及び筆者からの便りである。いくつかは**e-mail**での受信で、**DPk**氏が未だ@compuserve.comの時代である。**Jim BELL**氏からの**e-mail**は三国の南氏宅でパソコン通信を立ち上げて、初めて京大のホストから**Telenet**経由で受信したものである。筆者もその場に同席していて、発信者のアドレスの先頭がjimbo@となっており、南氏は「神保とは何處の誰だ?」などと最初に言っていたのを懐かしく思い出す。 本文はそっくり引用されているが、"**1996-97 International Mars Watch Project**"への参加の呼びかけで、インターネット・電子メールを使ったネットワーク作り始めの試みであった。

その他に、南氏の「福井便り」は五月連休に筆者が福井を訪ねたときのこと。「**一点点・一天天**」は桜の話(この年の春の京都賀茂の半木の堤のことなど)、他に「**時時間間**」(三国中学への電話の話)等が見られる。**Ns**氏が三国中学を離れた時期のことである。巻末お知らせには、筆者**(Mk)**が『**火星通信**』編集部に参加する事がアナウンスされた。「六月の天象」は**Mk**が紹介している。ちょうど百武彗星が地球に接近して通過していった**(25Mar1996)**あとのことで**LtE**にも彗星の話題(林啓生氏の写真など)があった。何れも十年前の話となった。

TYAは五回目となり、**1986**年五月の**CMO#008,#009**の内容が紹介されている。廿年前の火星は接近前の逆行に入る頃で、視直径は**13.4"(10May1986)**と大きくなりつつあった。**Mn**氏は臺北滞在で、体調を崩されたとの記事もあった由。

村上 昌己 (Mk)

SSTB preceding GRS.

○・・・・・・・・***Date: Sat, 13 May 2006 20:49:06 +0100***
Subject: Jupiter May 11

Good seeing was experienced, as it seems to have been by many south of England observers, on this date.

A sequence of RGB and IR images was obtained - I agree with Dave Tyler's comment about this night, the IR images were slightly sharper than the R, which is not generally the case.

It can be seen that the dark red spots on the N edge of the NEB, which were such an interesting feature of last year, can still be resolved on good nights from this latitude this year. Perhaps surprisingly, they do not show up that well in IR. There seems to be one right next to a white spot at about II=100.

There is also an animation for the especially keen.

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
http://homepage2.nifty.com/~cmons/2005/index_DAr.html

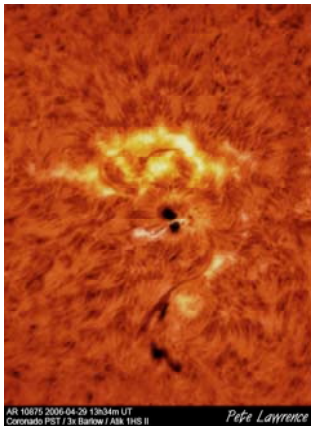
●・・・・・・・・***Date: Wed, 26 Apr 2006 06:14:00 +0900***
Subject: Lumeneraのゴースト

南 様：昨夜、拡大率を上げて撮像してみました。1/15秒露光の、7.5fpsです。ゴーストは出ませんでした。やはり光学的なものではなく、転送レートの問題だと思います。

浅 田 正 (Tadashi ASADA 宗像 Fukuoka)
http://homepage2.nifty.com/~cmons/2005/index_As.html

●・・・・・・・・***Date: Wed, 26 Apr 2006 17:25:52 +0100***
Subject: Fast changing spot AR10875

In case you get a chance to look at it, spot 875 has been changing quitefast today.. Larger version here
http://www.digitalsky.org.uk/solar/ha-20060426.html
Best regards,



○・・・・・・・・***Date: Sun, 30 Apr 2006 13:34:35 +0100***
Subject:AR10875 2006-04-29

Hi all, A bit of a cloud dodging day but I did manged a few captures. Here's a processed shot of active region 875 taken with my PST and 3× Barlow.

Best regards,

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

●・・・・・・・・***Date: Thu, 27 Apr 2006 09:30:32 +0100***
Subject: Jupiter from Barbados

Hi Guys, We, i.e. Damian, Bruce Kingsley and Myself are all back from Barbados with the two C14s and C11 apparently intact, thanks to the JMI cases and no thanks to the check-in staff at Barbados airport, where I saw my C14 put in sideways onto the belt where it stuck and was tumbled about it's axis by the next sloping belt ! The blank looks, lack of concern or common sense from the staff was scary. Quite the opposite of the really helpful on the ball staff at Gatwick.

Apart from all that the trip was was a great success. Processing the data is going to be a long job. I processed a few on the laptop whilst there to check out techniques. This is one of them. Seeing ranged from good to superb. We had quite a lot of cloud, the edges of which totally blasted the seeing, but in spite of that and the constant wind, we managed some excellent stuff every night, during our 10 hour sessions. These took in 1Mars, Saturn Jupiter and the Moon. I did not image Venus.

The Night-time temp was mostly 78f with 78 RH. Some nights the clarity was superb with the Milky way easily mistaken for a cloud (so my eyes are dodgy!). After our work was done on Jupiter , deep sky objects filled the eyepieces of the C14s with spectacular views.

With the 32kg single item limit being reduced to 23kg shortly, a repeat expedition will require a different logistical approach.

Much more to come, from LRGB with the Lumenera 075 mono, some from a Lumenera colour CCD, and some from the ToUcam. It was sometimes easier to image in colour between cloud gaps. Cheers all

○・・・・・・・・***Date: Sat, 6 May 2006 14:15:02 +0100***
Subject: Jupiter Toucam image from Barbados

Hi Guys, Still on my process at home, I came across this toucam image which surprised me. I had switched to a colour CCD as I was losing one or another of the filtered images in a sequence, due to cloud interuptions.

Seeing and transparency was otherwise excellent. It just goes to show what the good old Toucam can do in the right conditions. Gain was low at about 35% @ 10fps. On screen image was actually smooth too, quite amazing. It was a delight to use under those conditions.

There is also a red filtered image taken about half an hour earlier.

On the Jupiter observation side, there is a large fluffy cloud in the NEB and two smaller ones in the storm belt, top right on the image. Best wishes

○・・・・・・・・***Date: Sun, 7 May 2006 12:28:06 +0100***
Subject: Jupiter 16th Apr Barbados

Hi Guys, Here's a set of the "knotted rope" side of Jupiter , which is about to pull the GRS onto the disc.

I have also put in a "NOVELTY SHOT". Having finished on Saturn I pointed the scope at a low down Jupiter, In readiness for the FFC "frantic filter changing" session later on. The scope was mostly obscure my a shed roof, but I could not resist a red. I did Jupiter from here the night before last, not a lot in it ! Best wishes

○・・・・・・・・***Date: Sun, 7 May 2006 21:04:46 +0100***
Subject: Jupiter from UK 5th May

Hi Guys, Well I found that imaging Jupiter from the UK , was after all, still enjoyable. A little cooler than the 78f night-time in Barbados but the show has to go on.

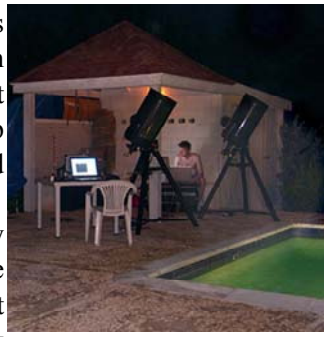
Same set-up C14 @*F*33 RsGB, RRGB and an IR. Lumenera 075 @30fps. Best wishes

○・・・・・・・・***Date: Sun, 14 May 2006 20:19:41 +0100***
Subject: Jupiter 19th April

Hi Guys, here's another shot from 13 north. The ring in Oval BA is well developed and is moving toward the Great Red Spot. Best wishes

○・・・・・・・・***Date: Sun, 14 May 2006 22:17:05 +0100***
Subject: Jupiter 13 Apr

Hi Guys, This is another synchronised imaging result. Twice the number of frames in the luminance has given a beautifully noise free image, of a very interesting face of Jupiter.



This next picture→shows the 2 C14's both aligned on Jupiter. We had to be a bit careful they did not end up doing some sychronised swimming!

Damian is shown suitably attired for 78 F imaging. He had a few friends in that hut a mouse that kept pinching his cake, a cockroach that head butted a cricket bat and a beautiful roosting dragonfly right behind his head.

○・・・・・・・・***Date: Tue, 16 May 2006 15:13:38 +0100***
Subject: Jupiter fom 15 April 05:09 ut

Hi Guys, Here is another of Jupiter showing the area that follows the GRS onto the disc. Best wishes

Ps: The web site below is being updated daily with Barbados expedition images. There are a couple of Saturns on there now, taken in less than perfect seeing due to windshake, with one showing that the small spot imaged last November in the South Polar Region, still exists.

○・・・・・・・・***Date: Wed, 17 May 2006 01:01:28 +0100***
Subject: Oval BA

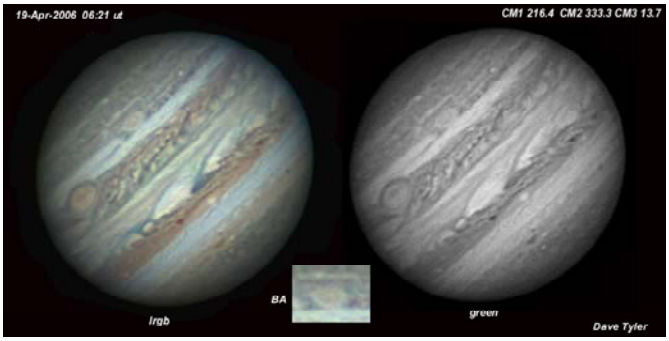
Hi Guys, One from the 19th April showing Oval Barry, which is moving towards the GRS. I note from JJ's and Jims more current images it is much closer now. I caught it an hour ago from the UK. Images tomorrow, ok, later this morning! Cheers

○・・・・・・・・***Date: Thu, 18 May 2006 18:49:33 +0100***
Subject: More Jupiter

Hi Guys I hope your not getting bored with April.

This pair show the rectangular "pictures frame" around BA quite nicely.

The green filtered image is not part of the RGB set for the colour image. It was taken a little later, taking advantage of good seeing, with twice the number of frames, for less noise and greater detail. Best wishes



○・・・・・・・・***Date: Fri, 19 May 2006 16:04:59 +0100***
Subject: Jupiter 21st April Colour Lumenera

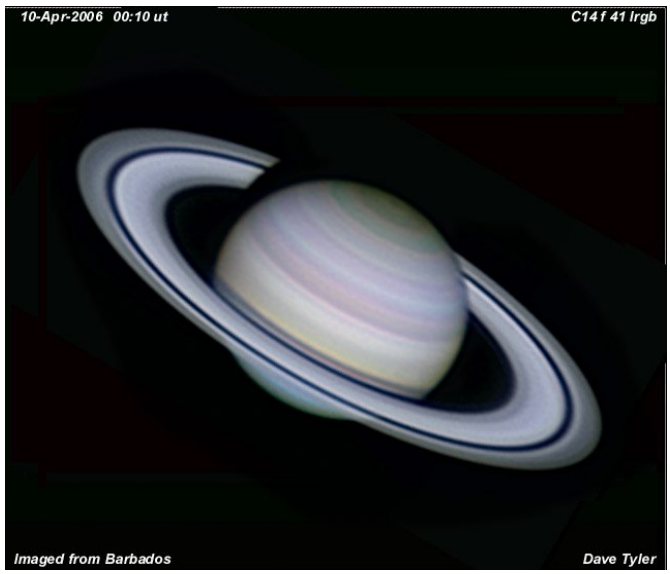
Hi guys, This one is from the colour version of the Lumenera 075. Seeing although variable, was excellent at the time of taking, with Jupiter at 60 deg' alt'.

The pale blue "lakes" between the storms are interesting. They are positioned in the areas just to the south of the GRS' belt. C14 @ *f*33 Bet wishes

○・・・・・・・・***Date: Sat, 20 May 2006 22:42:45 +0100***
Subject: CASSINI INSPIRATION

Hi Guys, inspired by the Cassini 2000 image processing, I rebalanced one of mine from the C14, taken in Barbados. Interesting changes in appearance. best wishes

○・・・・・・・・***Date: Wed, 24 May 2006 21:30:04 +0100***
Subject: Saturn From Barbados



Hi Guys, Here are a few Saturn shots from Barbados. The SPR spot first imaged last November is still visible. Best wishes

Dave TYLER (ﾃﾞｳﾞｨｯﾄﾞ・ﾀｲﾗｰ Bkh UK 英)
http://www.david-tyler.com/
http://homepage2.nifty.com/~cmons/2005/index_DTy.html

●・・・・・・・・***Date: Thu, 27 Apr 2006 11:12:47 +0200***
Subject: Last mars obs. by S. Maksymowicz

Dear sir, Very interesting the last submissions coming from the other observers. Unfortunately here, the sky during the favourable evening dawn observation period was cloudy and closed. The hazing equatorial activity is interesting to follow and we can expect a movement in the pole direction of the haze equatorial band. Could we have more observers to follow this phenomenon?

May I suggest to alert them of the subject? Truly yours.
Regards.

○・・・・・・・・***Date: Wed, 3 May 2006 08:43:56 +0200***
Subject: mars obs. 02nd.05 by S. Maksymowicz

Dear sir, Please find my mars observations held last 02nd May at magnification 270× with my R152mm *F*6.6. (See attached file: mars02.05.06.pdf)(See attached file: Mars02nd.05.06 notes.doc)(See attached file: resized_mars02.05.06W11.jpg) Drawings are views with a 90° diagonal.Taking into account the local weather conditions that's becoming rather hot, we are at the final Mars season, I think. Nevertheless, I will try again but not sure with results with more stable images than get on this present obs.

I wish you receive this matter in good conditions.
Best regards.

Stanislas MAKSYMOWICZ
(ｽﾀﾆｽﾗｽ･ﾏｸｼﾓｳﾞｨｯﾁ Ecquevilly 法)
http://homepage2.nifty.com/~cmons/2005/index_SMk.html

●・・・・・・・・***Date: Fri, 28 Apr 2006 19:29:54 +0100***
Subject: RE: Jupiter, april 27-28th

Hi Christophe, I agree that recent images seem to be showing more yellowish colour in the NEB. We will see if it intensifies! Best wishes,

○・・・・・・・・***Date: Sun, 21 May 2006 13:59:00 +0100***
Subject: RE: CASSINI INSPIRATION

Hi Dave (TYLER), Nice colour balance. But in fact, there's no need to imitate spacecraft pictures when it comes to colour balance: your data is just as good as theirs in this respect. And the later (hi-res) Cassini images should definitely not be imitated as they used only 2 colours with a synthetic green! Cheers,

John ROGERS (ｼﾞｮﾝ･ﾛｼﾞｬｰｽ Cambridge Univ 英)

●・・・・・・・・***Date: Fri, 5 May 2006 09:35:06 +0900***
Subject: 火星画像　AkM060502

こんにちは: 4月19日からセブに来ています。今回は7月中旬までが予定になっています。 4月に日本へ戻り、満開の桜と温泉につかり、リラックスできました。気持ちが少しリセットされ、パワーが戻ったかなと思います。

遅ればせながら、火星画像を添付します。Deが+になり、北極地方が見えています。

○・・・・・・・・***Date: Fri, 19 May 2006 15:19:49 +0900***
Subject: Jupiter 18 May 2006

こんにちは：台風1号の影響でフィリピンでも一週間以上天気が悪く、やっと昨夜から晴れて暫くぶりに木星を見ました。先週からC-11を無理やり赤道儀に載せて使うようにしております。誰が見ても無理な使い方なんですが、それでも何とか使えそうです。C-8とC-11の差は歴然と在り、C-11では良く見えます。もっと設置条件が良いと尚良いとは思うのですが、仕方ありません。

木星のEB内部が暗い様です。SEBのoutbreak現象はこの経度では全面に見えます。このC-11は日本の友人から借りたもので、しばらくChristopherGO氏宅で使っていました。彼はこのC-11の画像からRed Spot Jrに気づいた譯です。

Dear all, I have attached some recent Jupiter images made on 18 May 2006. Note that the interior of EB has turned to be shadowy and Mid-SEB outbreak is seen on this hemisphere. I have changed the routine telescope from C-8 to C-11 which is very powerful. This C-11 was used by Christopher Go when he first detected the *Red Spot Jr*. So this is a memorial instrument. Best Wishes

○・・・・・・・・***Date: Fri, 19 May 2006 15:37:54 +0900***
Subject: 阿久津です

南様；毎回、TYLER氏の木星画像の転送ありがとうございます。此方も台風の影響で暫く星が見えない状態でした。日本はこれからなんですね。今年12月にCebuでアジアの国際会議(多分APECと思うのですが)が開催されます。今から会議場を作ろうとしていますが本当に間に合うのか？ さすがフィリピンです。写真はモアルボアルです。

C-11に変えましたので今夜、晴れれば火星を狙ってみます。

○・・・・・・・・***Date: Sat, 20 May 2006 14:47:19 +0900***
Subject: Jupiter 19 May 2006

こんにちは、天気が回復し、夜中に木星がテラスから見える時間帯になってきました。エアコンの影響が無ければもっと気流は良くなるのですがこの環境では無理ですね。

○・・・・・・・・***Date: Sun, 21 May 2006 11:42:44 +0900***
Subject: Mars and Jupiter 20 May 2006

こんにちは；火星と木星画像を添付します。火星は2005-2006年では最後の画像ですかね。北極冠が顕著になってきました。

木星の左の画像の左端には***Red Spot Jr***(BA)がかろうじて見えます。気流は不安定でイメージが違います。

阿久津 富夫(Tomio AKUTSU セブThe Philippines)
http://homepage2.nifty.com/~cmons/2005/index_Ak.html

●・・・・・・・・***Date: Fri, 5 May 2006 17:13:52 -0500***
Subject: Mars Images - 26, 27, 29 and 30 October 2005

Dear Masatsugu & Masami, Attached are some Mars images I have for the dates 26 October, 27 October, 29 October and 30 October that I would like to submit to the CMO Gallery. I'm still working on the backlog. I hope to have some more for you next week.

Please let me know if you have any questions or problems regarding the images. Thank you,

○・・・・・・・・***Date: Wed, 10 May 2006 15:51:05 -0500***
Subject: Mars Images - 21, 22, 23 and 25 October 2005

Dear Masatsugu & Masami, Attached are some Mars images I have for the dates 21 October, 22 October, 23 October and 25 October that I would like to submit to the CMO Gallery.

Please let me know if you have any questions regarding the images. Thank you,

○・・・・・・・・***Date: Thu, 11 May 2006 14:20:30 -0500***
Subject: RE: Mars Images - 21, 22, 23 and 25 October

Dear Masatsugu, Thank you very much for your offer to send me the printed copies of the CMO. I feel honored to be included with the group of US observers that you mentioned. My postal address is ・・・・・・

Sorry for the late submissions. I think I have this CCD imaging finally figured out and I hope to be provide you more timely images during the next Mars apparition. I still working, in my spare time, on the rest of my images from October. I will send them to you as I complete them. Best regards,

Bill FLANAGAN (ｳｨﾘｱﾑ･ﾌﾗﾅｶﾞﾝ Houston TX 美)
http://homepage2.nifty.com/~cmons/2005/index_WFl.html

●・・・・・・・・***Date: Sun, 7 May 2006 22:21:26 +0900***
Subject: Mo05May_06

ご無沙汰いたしております。長い間処理できませんでしたが、このたびようやく時間がとれました。今だに月一回ぐらいは好Seeingがあり少しはまともな像が撮れます。04日は三回ほど撮っていてこちらのほうが良像ですが、辺縁に拙いところがあり、その処理が終わったら送ろうと思っています。

○・・・・・・・・***Date: Mon, 15 May 2006 00:00:23 +0900***
Subject: Mo04May_06

04Mayをお送りします。 折角時間をかけて処理しましたが、結局うまくいかず、もとのままです。なかなか難しいですね。天ガに載っていた岡野さんのやり方で処理してみたのですが…

今日は撮ろうと思っていましたが、天候が悪くだめでした。また、報告します。

○・・・・・・・・***Date: Tue, 16 May 2006 01:45:13 +0900***
Subject: Re: RE:Mo04May_06

メール有難うございました。合成*F*はST-5Cのときと同じで撮っています。(*F*=50)

最近は木星や土星も撮っていますが、送っていただいているような素晴らしい画像とはほど遠く、ぼけぼけの像でいやになります。

ゴーストが出るのも悩みの一つです。ダーク・フラット補正も良く解っていませんし、まだまだやることは沢山あります。

昨日、今日と曇って駄目でしたが、天氣さえ良ければ、まだ撮れると思いますのでもう少し撮ってみます。古いものから順に処理していきますのでよろしく。

森田 行雄 (Yukio MORITA 廿日市 Hiroshima)
http://homepage2.nifty.com/~cmons/2005/index_Mo.html

●・・・・・・・・***Date: Mon, 8 May 2006 04:22:58 +0900***
Subject: A late season Mars - 2006/05/05 10:32UT

Dear CMO, Had some fairly good seeing for this image despite the very tiny size of Mars right now and an altitude of 44 deg. Was my first time to observe the Northern Polar Cap so that was pretty neat. I think the SPH is visible as a white patch on top but am not sure. Some morning mist/haze is also visible on the morning limb.

Will try for a better image of Sytis Major later in the week if the conditions are favorable. Best regards,

○・・・・・・・・***Date: Mon, 22 May 2006 23:45:02 +0900***
Subject: My last Mars 2005-2006, Part1 - 2006/05/21

Dear CMO, Here is my last Mars - I have one more AVI to process from May 21st with better seeing around 10:49UT - for the current apparition. Altitude is getting too low and imaging angle too difficult. I will send second image (better image??) later this week. Best regards,

Robert HEFFNER (ﾛﾌﾞ･ﾍﾌﾅｰ Nagoya, Japan)
http://homepage2.nifty.com/~cmons/2005/index_RHf.htm

●・・・・・・・・***Date: Mon, 08 May 2006 16:01:50 +0900***
Subject: 海岸の砂の四方山話

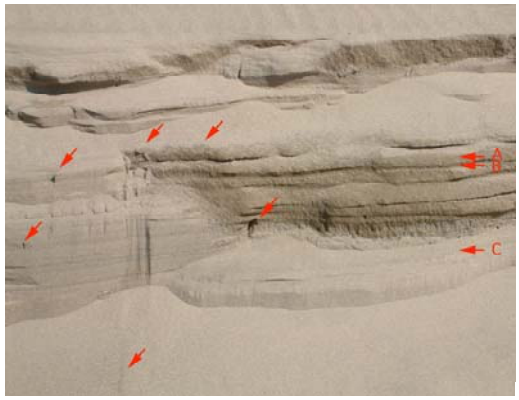
南　様; ご無沙汰しています。

かなり多忙な毎日をすごしています。多忙と言っても仕事ばかりではないですが、(^^ゞ

連休にいつもかまっていない連れ添いと白山市の海岸に散歩を楽しみました。サイクリングロードは砂の少なく快適に歩けます。ふと、丘陵に目をやると写真の様な断面になっているのに興味を持ちました。当たり前と思えば当たり前の光景です。

本来ならこの丘陵も砂浜と続いているものですが、歩道があるがために寸断しているのです。つまり急斜面になっています。海からの風や冬場の高波によって層が形成されているのは極自然の姿です。しかし、なぜ写真の様な地層になっているのか? 同じ砂なら地層にならないはずです。直ぐに想像出来るのは砂の密度と粒状の大きさの違いです。

手にとって見るとさほど粒状の大きさは変わりがありません。密度は圧縮されたように明らかに異なります。でも、どうして圧縮されたのでしょう? 砂をなめてみましたが塩分の違いは判りません。たぶん詳しく調べれば塩分濃度の違いで密度に変化が出来たと思われます。雨も降るでしょうから下層ほど塩分が多いと想像できます。



次ぎに興味を持ったのが崩れ方です。写真

の横矢印は層を示していますが、Bの様に比較的薄い層の方が堅いのです。斜め矢印のところで欠けているのは、この堅い層です。軟らかいところが崩れそうですが、堅いほど脆い性質が表れているのでしょう。そしてこの崩れはよく観察していると風で崩壊していました。軟らかい部分が風で飛ばされると自分の重さに耐えかねて奥の方から折れる様に崩れます。ですから層の堅い部分が凹んでいるのです。

崩れた箇所の下方は、うっすらと砂が拡がります。もちろん途中の軟らかい砂を巻き込んで落ちますので、裾拡がりになります。日差しの関係で、影のコントラストが高く、うっすら拡がった程度なのに大量に落下した跡に見えます。まるで小規模な火星の渓谷を見ている様でした。

腰痛のために今年のOAA維持委員会には欠席することにしました。

○・・・・・・・・***Date: Wed, 10 May 2006 23:30:57 +0900***
Subject: Re: 海岸の砂の四方山話

南　様；> 白山市というのは松任の邊りですか?　白山を眺め
>に一度大聖寺へ行こうかと思っているのですが、近いところ
>でしょうか?

はぃ、そうです。松任海浜公園です。砂地層の崩壊は雨などの水分によるものと思っていましたが、風紋はあたりまえですが風であのような模様になるとは思いませんでした。山の崩壊は殆どが雨による土砂崩れですので意外です。

加賀の大聖寺ですか?少し白山からは離れていますね。私は「中谷宇吉郎雪の科学館」の喫茶店下にある湖畔の階段で眺めるのが好きです。なにしろ天気がよければ柴山潟に逆さ白山が映るのです。・・・・

(お訊ねのボリビアのポトシ銀山について)ちょびっと調べてみました。添付写真の GW-01.JPG, GW-02.JPGがGoogle Earthからキャプチャーしたものです。GW-03.JPGは、ラ・パスの少し南にある地形です。参考に付けておきました。・・・・・

鉱石に関する役立つURL
http://homepage3.nifty.com/scandium/

結果的に鉄分を含んだ地表のようですね。火星そっくりです。

長　兼　弘 (Kanehiro OSA 野々市 Ishikawa)

●・・・・・・・・***Date: Fri, 12 May 2006 17:32:22 +0100***
Subject: CMO bulletins

Dear Masatsugu, Thanks for the latest CMOs which arrived today. I still have another 17 nights of Mars images to send you from April 8 - 25th obtained at Barbados. Conditions were excellent most evenings and i had detailed views of the small Mars from 150W to 340W longitudes during my stay.

On April 19th i completed a whole year of Mars observations having begun on the same day the year before at Barbados. It has been a superb apparition and i have really enjoyed observing Mars throughout the last year, and look forward to it emerging again in the morning skies.　Best Wishes

Damian PEACH (ﾃﾞﾐｱﾝ･ﾋﾟｰﾁ Bkh UK 英)
http://www.damianpeach.com/
http://homepage2.nifty.com/~cmons/2005/index_DPc.html

●・・・・・・・・***Date: Wed, 17 May 2006 11:29:54 -0700***
Subject: Re: Dave's Comments on GRS Jr & GRS !

Shouldn't the new one be the Not So Great Red Spot (NSGRS)?

Rik HILL (ﾘﾁｬｰﾄﾞ･ﾋﾙ LPL AZ 美)

●・・・・・・・・***Date: Wed, 17 May 2006 08:15:03 EDT***
Subject: Re: Jupiter GRS AND BA

Dear Dave (TYLER), I had good seeing on and off last night and found BA somewhat dull visually, as one expects from the orange tint, though I did not wait for it to transit. The GRS was visually centred at long. 109 deg. System 2. I noticed tonal variations since the last few nights in the dark RS Hollow, the E-W bar being most apparent last night, and I found the little condensation in the southern arch of the RSH quite easy visually, though it was not seen last time.　The belts look brownish-orange visually, a clearer orange tone in the RS and in the space of the Hollow generally, with blue NEBs plumes. All the best

Richard McKIM (理査・麥肯 *BAA Mars Section* 英)

●・・・・・・・・***Date: Wed, 24 May 2006 12:59:45 -0400***
Subject: Re: CASSINI INSPIRATION

>Hi Dave (TYLER), Nice colour balance. But in fact, there's
>no need to imitate spacecraft pictures when it comes to
>colour balance: your data is just as good as theirs in this respect.
>And the later (hi-res) Cassini images should definitely not be
>imitated as they used only 2 colours with a synthetic green!
Cheers,
>**John ROGERS** on 21 May

Hello All, I must concur.　A little known fact in the scientific community is that The Cassini team turned to an outsider to do their color balance and some of the image processing on not only Jupiter, but also Saturn. Dr. Carolyn Porco approached me back in '02 to get my color data for Jupiter, as Cassini's cameras were supposedly calibrated for Saturn, and the Jupiter part of the fly-by was not in the budget.　That part of the mission was executed by personel that were entirely donating their time to the effort, without any pay or formal recognition - Cassini was supposed to be an entirely Saturn project, and Jupiter was only passed in an effort to use it as a gigantic slingshot.

So, in short, I agree with John. When the world looked at the images of Jupiter (and Saturn - feel free to e-mail me if you want the link to the page giving me formal credit for being part of the processing team) coming back from Jupiter, they were looking at an image which was acquired by a half-billion dollar space probe, and co-processed by an amateur not any different from any other amateur in the world.　I was very proud to have been the one that Dr. Porco turned to for help, and that work is an accomplishment that I will cherish for the rest of my life。

p.s.;　I believe that this information was also published in the September 2003 issue of *S&T*.

Maurizio Di SCIULLO (ﾓｰﾘﾁｵ･ﾃﾞｨｼｳｯﾛ FL 美)

☆　☆　☆

Why Don't You See How Yellowish Dirty the 2003 Mars Was?

◇The planet Mars in 2003 was appealing in July and August, since its angular diameter was growing gradually to reveal something new every day. At the same time we were aware that the surface looked quite yellowish dirty because of the airborne dust which was floated and veiled globally; it was because we had several dust disturbances in July. However it seemed unexpectedly that there were few who noticed this fact in spite of the importance of the dust haze covering to the Martian meteorology. Some ccd images were unnecessarily enhanced to show up the details beneath the dust veil. Why do you so want to compare your images with the HST image?

◇Otherwise, since we received an Alert at the end of July, we sent information from our side (Sent: Thursday, July 31, 2003 8:54 PM JST), and in it we added: "*The dusty aspect is reminiscence of the situation met in July 2001, and there is no wonder if several dust devils are forced to occur beneath the airborne dust veil to make the surface more obscure. Just different from the 2001 case is the big apparent diameter. So some "details" are still caught, but little gradation these days. Perhaps a lot of small sized dust devils cannot be observed any longer. I don't know however about any possibility of 2003b. When and where? The dust burst must be a kind of catastrophe (Rene Thom's Theory of Catastrophe), and so if the energy is mildly released, there may not be any large necessity of catastrophe*" and on the next day (Sent: Friday, August 01, 2003 6:48 PM JST) we wrote: *"the global obscuration of the surface markings is still going on."* How was then a reply? It was astonishing to us since the reply to us on 3 Aug went as follows*: "Mars appears to be clearing up and the dust in the atmosphere has decreased."*

◇ The following email to Maurice VALIMBERTI (***MVl***) from us shows well our opinion on the clear and detailed ccd images (at the same time we were busy with the observations of the Sun-glint problem):

●・・・・・・***Date: Fri, 1 Aug 2003 06:43:57 +0900***
Subject: RE:Preliminary image from this morning 31st

Dear Maurice, I just came back from the rooftop, and saw several 31 July images. I thought yours was the best. I also watched at 13:30, 14:10, and 14:50 GMT, and so I thought yours was most real. I thought Grafton's cloud had subsided, and the Eos one was only a remnant. I think your image is the best in the sense it shows the yellow haze all over the surface. No more than yours and Pellier's show the yellow haze. I don't understand why. Do you visually watch the planet Mars? Everybody here says the surface has been very opaque (day by day), but no ccd observer cares. Some details are seen (for example we checked Olympus Mons this morning several times), but apparently it has become difficult to see the gradation. We should remember it has been often observed for some associated dusts to occur under this kind of dusty atmosphere.

We are doing the group watching here at Naha of the possible flares at the Solis L area from 30 July (Ishadoh, Wakugawa and others). On 1 August (today GMT), it will be attained De=Ds. So we will continue until 3 August. Today (31 July) I joined the group from 13:30 GMT to 16:30 GMT (I used C14 for watching, good!), and did my routine observations (25 cm Newton) from 17:30 to 20:10 GMT on the rooftop. The group is also taking pictures by a Sony 3CCD Video from around 10:30 GMT (very low).

We are doing by saying we will not be able to see any flash under this hazy circumstance on Mars. Nobody has any ccd eye, but we have real eyes. Do you agree me?

Thank you very much for your prompt information of good work. Murakami is still out in Tokyo to be on a group watch of the Sol flare. I will ask him to post your image on the What's New Corner as soon as he returned home. We shall readily replace as soon as we receive the final version. With best wishes Masatsugu

◇ We gave the following Notice on the CMO-Web "Director's Notes in 2003" on 4 August:

"***4 August (λ=235°Ls)*** : *The distribution of the dust core at Eos to Protei R remains unchanged so much from 2 August to 4 August. The brightness of the core (originally, cudgel-like) is weaker than the sun-glint Ophir or Claritas. However the large area is quite dusty and influenced also the upper yellow haze. The density of the yellow haze/water condensate looks to have increased, and the surface has become much opaque. On the other hand, since the apparent diameter has much grown up, such a minor marking as Iuventæ F is always visible and the boundary dimensions of markings are easily captured. From this side the spc is still stout and active."*

We also posted on the CMO-Web façade on 6 August a message that "***Great! but Yellow Planet***

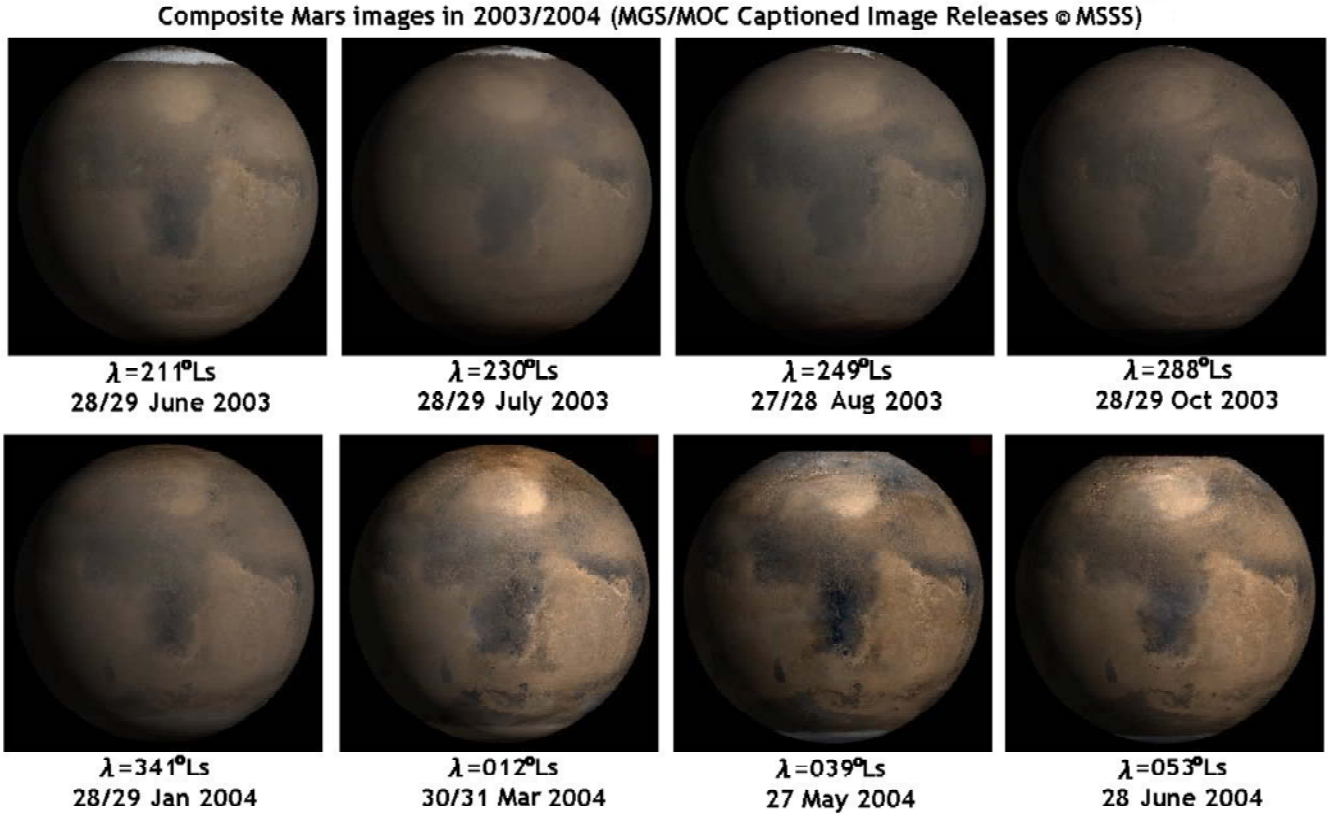
Mars is now big, and on 10 August its angular diameter exceeds the maximum one in the previous perihelic opposition in 1988. However the Martian surface is now globally covered by a uniform yellow haze made of airborne dusts and water condensates, and so the surface appears quite opaque.・・・・・・・"

◇ Now we shall show how time told. Several interesting MGS/MOC composite images in 2003/2004 have been released in

http://www.msss.com/mars_images/moc/index.html

The first set of images was published in January 2005 and every month since then they distributed one set until now. They cover quite the ranges of season: λ=145°Ls (March 2003), 160°Ls, 175°Ls, 193°Ls, 211°Ls, 230°Ls, 249°Ls (closest), 269°Ls, 288°Ls, 306°Ls (on 27/28 Dec 2003), and the images in 2004 as follows λ=341°Ls, 357°Ls, 012°Ls, 025°Ls, 039°Ls, 053°Ls. The last one was released on 16 May 2006 (so just corresponding to the present Mars). We here choose 8 images showing the areas of Syrtis Mj and Hellas from the good deal of sets.

◇They are not enough, but even this set of images prove clearly how the clear surface differs from the dirty surface, and it is apparent the images in July and August are dirty veiled by the airborne dust haze, and even the October images do not show any "clear" surface. The image at λ=341°Ls is the one after the December 2003 Dust and so not yet clear. The images after the northern



spring equinox show really how the haze surfaces are cleared up. Note finally M Serpentis on the image taken in June 2003 is different from that shown on the image on 28/29 July 2003: It was caused by the outburst of dust on 4 July over there.

◆2003年の七月、八月というのは視直径がこれでもこれでもかと日々大きくなる状態であったが、模様が好く見える様になっているにも拘わらず、表面の浮遊黄塵による汚れは可成りのものであった。ところが、案外とこの點に觸れる觀測者が多くはなかったのである。それだけではない、七月の終わりにクリュセに黄塵が立ったことから、或る御仁がAlertと稱してご苦勞にも知らせてきたから、31July(Sent: Thursday, July 31, 2003 8:54 PMJST)と翌日(Sent: Friday, August 01, 2003 6:48 PM JST)その返事の中で、こちらの情報と共に"詳細は見えるが浮遊黄塵がひどい"、ということを返事をしたが(英文の部參照)、驚いたことに3Augに "Mars appears to be clearing up and the dust in the atmosphere has decreased"と返事が來て唖然とした。これは以後御免被りたいと思った程である。當時ピカリ現象も話題であって、澳大利亞とも交信があったが、ヴァリンベルティ(MVl)氏への返信の中で憤懣を述べているので、英文を參照されたい。

◆では、八月の上旬の段階で、火星面がclearになったかどうかだが、眼視觀測の直觀を客觀的に證明するのは極めて難しい。調整の利いた手段で追わなければならないからである。ところが、2005年の18JanuaryからMGS/MOCのページ http://www.msss.com/mars_images/moc/index.html で、毎月一回2003年/2004年の合成全面火星像を掲載し始め、次のように季節を刻んだ：λ=145°Ls (March2003に相當)、160°Ls、175°Ls、193°Ls、211°Ls、230°Ls、249°Ls(最接近)、269°Ls、288°Ls、306°Ls (27/28Dec2003)、そして2004年の像はλ=341°Ls、357°Ls、012°Ls、025°Ls、039°Ls、053°Lsと續いている。最後の像は16May2006發表である(つまり現在の火星に對應している)。これらの像は全面を幾つかに分けて發表されるが、シュルティス・マイヨルやヘッラスの見える部分を八像選んで引用したものが上のファイルである。

◆これらを眺めて、特に北半球の春分以後の火星像と比べて、七月八月の火星面が如何に汚れているかお分かりだろう。特にOctになっても綺麗にはなっていない。λ=341°Lsの像の前には十二月黄雲が起こっているから、年明けでも汚れているが、今度は急速に綺麗になっており、これこそclearing upと呼ぶに相應しい。◆尚、June2003のマレ・セルペンティスと28/29July2003のそれを比べると4July2003の黄塵によって變化しているのが好く出ている。 (南 政次 Masatsugu MINAMI)

Forthcoming 2005 Mars (19)

Ephemeris for the Observation of the 2005/06 Mars. XII

June 2006

Masami MURAKAMI
村上 昌己(Mk)

Date (00:00GMT)			ω	φ	λ	δ	ι	Declination
01	June	2006	003.21°W	13.9°N	060.12°Ls	04.34"	27.0°	+21°53'
02	June	2006	353.53°W	14.2°N	060.56°Ls	04.32"	26.8°	+21°45'
03	June	2006	343.82°W	14.4°N	061.00°Ls	04.31"	26.6°	+21°37'
04	June	2006	334.11°W	14.6°N	061.44°Ls	04.29"	26.5°	+21°29'
05	June	2006	324.42°W	14.9°N	061.87°Ls	04.28"	26.3°	+21°21'
06	June	2006	314.73°W	15.1°N	062.31°Ls	04.26"	26.1°	+21°13'
07	June	2006	305.02°W	15.3°N	062.75°Ls	04.25"	25.9°	+21°05'
08	June	2006	295.32°W	15.5°N	063.19°Ls	04.24"	25.8°	+20°56'
09	June	2006	285.61°W	15.8°N	063.62°Ls	04.22"	25.6°	+20°47'
10	June	2006	275.92°W	16.0°N	064.06°Ls	04.21"	25.4°	+20°38'
11	June	2006	266.20°W	16.2°N	064.50°Ls	04.20"	25.3°	+20°29'
12	June	2006	256.48°W	16.4°N	064.94°Ls	04.19"	25.1°	+20°20'
13	June	2006	246.77°W	16.6°N	065.37°Ls	04.17"	25.0°	+20°11'
14	June	2006	237.07°W	16.9°N	065.81°Ls	04.16"	24.8°	+20°02'
15	June	2006	227.34°W	17.1°N	066.25°Ls	04.15"	24.6°	+19°52'
16	June	2006	217.62°W	17.3°N	066.69°Ls	04.14"	24.5°	+19°43'
17	June	2006	207.91°W	17.5°N	067.12°Ls	04.13"	24.3°	+19°33'
18	June	2006	198.21°W	17.7°N	067.56°Ls	04.12"	24.1°	+19°23'
19	June	2006	188.48°W	17.9°N	068.00°Ls	04.11"	23.9°	+19°13'
20	June	2006	178.74°W	18.1°N	068.43°Ls	04.10"	23.8°	+19°03'
21	June	2006	169.03°W	18.3°N	068.87°Ls	04.08"	23.6°	+18°53'
22	June	2006	159.31°W	18.5°N	069.30°Ls	04.07"	23.4°	+18°42'
23	June	2006	149.57°W	18.7°N	069.74°Ls	04.06"	23.2°	+18°32'
24	June	2006	139.83°W	18.9°N	070.18°Ls	04.05"	23.1°	+18°21'
25	June	2006	130.11°W	19.1°N	070.61°Ls	04.04"	22.9°	+18°10'
26	June	2006	120.39°W	19.3°N	071.05°Ls	04.03"	22.7°	+18°00'
27	June	2006	110.64°W	19.5°N	071.49°Ls	04.02"	22.5°	+17°49'
28	June	2006	100.90°W	19.7°N	071.92°Ls	04.01"	22.4°	+17°38'
29	June	2006	091.16°W	19.9°N	072.36°Ls	04.00"	22.2°	+17°26'
30	June	2006	081.44°W	20.1°N	072.79°Ls	03.99"	22.0°	+17°15'

シー・エム・オー・フクイ　　中 島　孝　*Nj*

★今回は、**佐 藤　健**様(377)、**成 田　広**様(378)からカンパを頂戴しました。有難うございました。なお、報告が遅れましたが、**村上 昌己、南　政 次**両氏から『**天文観測年表**』2006年版の火星項原稿料の全額を寄付していただいています。不一

☆ Kasei-Tsûshin CMO (*Home Page*: **http://www.mars.dti.ne.jp/~cmo/oaa_mars.html**)

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