

MARS

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OBSERVATIONS

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THIS time we shall review the Mars observations made during the following period*from 16 February ($\lambda=012^\circ\text{Ls}$) to 15 March 2006 ($\lambda=026^\circ\text{Ls}$).*

The Martian season thus entered the period when the north polar cap (npc) began to thaw but might be standing still because of the moderate meteorology at the arctic region, while the tilt ϕ varied just from 12°S to 6°S so that it was hard to tell the details of the npr. Furthermore the angular diameter δ went down from $7.7''$ to $6.3''$. In addition, the weather did not recover generally yet. The phase angle ι was from the maximal 38° slightly down to 37° . The apparent declination proceeded from $+21.7^\circ$ to $+24^\circ$ during the period: Too much height brings a hard time to the refractor users at meridian. On 19 February, the planet entered the eastern quadrature, and henceforward the planet has moved utterly to the western sky.

The weather in Japan, if we talk in a broader sense also about the seeing conditions, still remained very poor. In the Kwanto district (including Tokyo, Yokohama) the first warm spring gale blew on 6 March, but at the rear side of the Japanese main island the abnormal winter lasted and we had snowfall of 38cm even on 14 March at Fukui. Thus far we have had few regular observations available this winter, and we tend to owe a good deal in reviewing to the British observations especially made by Damian PEACH (*DPc*). Christophe PELLIER (*CPI*) says he enjoyed the present 2005 apparition very much and got more fruitful results than in the preceding apparitions including the 2003 one: *DPc* must have similar impression since he has been in continuous pursuit of Mars this season together starting from April 2005 without any break. At the final stage, his activity is still keen and helpful to us; although it is not easy to review any phenomenon to the full without richer observations on the sides of the US and Japan.

♂.....今回は**16 February ($\lambda=012^\circ\text{Ls}$)** から**15 March 2006 ($\lambda=026^\circ\text{Ls}$)**迄の一ヶ月間を顧みる。愈々北極冠の季節に入ったが、 ϕ は 12°S から 6°S まで変化しただけで、北極域の観測は難しい。更に視直径 δ は $7.7''$ から $6.3''$ に落ちてしまった。位相角 ι は最大値 38° から 37° となった。視赤緯は $+21.7^\circ$ から $+24^\circ$ となり、南中時甚だ高い。19Febには東矩となった。従って以後西の空である。

日本の天気は氣流も含めると何處も好くなかったと思うが、どうであろうか。關東は三月六日に春一番が来た様だが、福井では今冬の異常は更に續いていて、三月十四日には38cmの積雪があった。三國でも前日から零下になり(二月六日の福井での -3.4°C 程ではないが)、この期間も寒さは應えた。

ペリエ(CPI)氏は2005年は秋口の好天により好成績ということであるが、ピーチ(DPc)氏はこれまでのように缺測期間が無く、而も、最終段階でも口径の大きい分、また天候が安定して良像を出し續けているので甚だ助かる。然し、アメリカ、及び日本の観測が整わない爲、レビューは容易でない。

♂.....The following list shows (a total of 16) observers who observed and contributed this period (in the semi-month period of peak during 16 Oct - 30 Oct we received from 75 observers).

♂.....今回の報告は以下の通りで、報告者は十六名となった。

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

1 Colour + 2 Sets of *RGB** Images (27, 28* February; 1* March 2006)
f/35⊗20cm SCT with ToUcam/Bitran BJ-41L*

ARDITTI, David デヴィッド・アーディッチ (DAr) 英國 Stag Lane, Edgware, G London, UK

4 Sets of *LRsGB* Images (16, 17, 24 February; 1 March 2006) f/59,74⊗25cm D-K Cass with mono ToUcam

HERNANDEZ, Carlos E カルロス・ヘルナンデス (CHr) 佛羅里達・邁阿密 Miami, FL, USA

2 Colour Drawings (19 February 2006) 180×15cm refractor and 290×25cm speculum

KUMAMORI, Teruaki 熊森 照明 (Km) 堺 Sakai, Osaka, Japan

7 Colour CCD Images (21 February; 2, 4 March 2006) f/50⊗60cm Cass with an ATK-2C
*ソフィア堺天文臺 Sakai City Observatory

LOMELI, Ed エド・ロメリ (ELm) 加利福尼亞 Sacramento, CA, USA

5 Sets of *RGB* Images (24 February 2006) 23cm SCT (⊗ Tele Vue 5× Powermate) with ToUcam Pro

MAKSYMOWICZ, Stanislas スタニスラス・マクシモヴィッチ (SMk) 法國 Ecqueville, France

12 Sets of Drawings (18, 28 February; 5, 6, 9, 10, 12, 13, 15 Mar 2006) 250×10cm refr |250×15cm refr

MELILLO, Frank J フランク・メリッロ (FMI) 紐約 Holtsville, NY, USA

1 Set of CCD Images (8 March 2006) f/20⊗20cm SCT with a ToUcam

MINAMI, Masatsugu 南 政次 (Mn) 福井 Fukui, Fukui, Japan

35 Drawings (21, 24 February; 4, 7, 8, 15 March 2006) 600, 630×20cm Goto ED refractor*
*Fukui City Observatory 福井市自然史博物館天文臺

MOORE, David M デヴィッド・ムーア (DMr) 亞利桑那 Phoenix, AZ, USA

2 Sets of *RsGB* Images (14 March 2005) f/30⊗36cm Cass with ATK-1HS

MURAKAMI, Masami 村上 昌己 (Mk) 藤澤 Fujisawa, Kanagawa, Japan

2 Drawings (4, 8 March 2006) 320×20cm F/8 speculum

NAKAJIMA, Takashi 中 島 孝 (Nj) 福井 Fukui, Fukui, Japan

20 Drawings (21, 23 February; 4, 8 March 2006) 600×20cm Goto ED refractor*
* Fukui City Observatory 福井市自然史博物館屋上天文臺

PARKER, Donald C ドン・パーカー (DPk) 佛羅里達・邁阿密 Miami, FL, USA

2 Sets of *RGB* Image2 (2, 11 March 2006) f/47⊗41cm F/6 spec with Lu075M

PEACH, Damian A デミアン・ピーチ (DPc) 英國 Loudwater, Buckinghamshire, UK

16 Sets of CCD Images +1 R (17, 18, 20, 24, 25, 28 February; 1, ~4, 13, 15 March 2006)
f/40⊗35cm SCT with Lu075

PELLIER, Christophe クリストフ・ペリエ (CPI) 法國 Seine-St-Denis, France

2 Sets of *RGB* Images (12, 15 March 2006) f/53, 63⊗21cm Mewlon with Lu075M

SIEGEL, Elisabeth エリサベト・シーゲル (ESg) 丹麥 Malling, Danmark

1 Drawing (26 February 2006) 330×20cm F/10 SCT

TYLER, David デーヴ・タイラー (DTy) 英國 Flackwell Heath, Buckinghamshire, UK

14 Sets of *RGB* or *IRsGB* +3 Colour Images (16, 17, 20, 24, 25, 28 February; 1, ~4, 15 March 2006)
f/37,40,41,47,55⊗36cm SCT with Lu075M

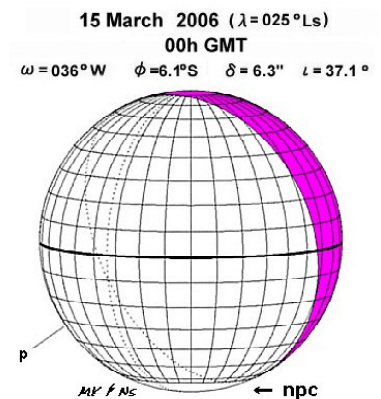
♂.....**The Remnant NPH:** As the season approached the spring equinox ($\lambda=000^\circ\text{Ls}$), the north polar hood (nph) is seen usually thinner in contrast with the popping-out bright north polar cap (npc), while the present early vernal season because the central latitude ϕ yet remained to point to the south, the nph appeared rather thick seen obliquely at the limb. Even at $\lambda=015^\circ\text{Ls}$, the nph is shown thick on KUMAMORI (*Km*)'s images on 21 Feb ($\lambda=015^\circ\text{Ls}$) at $\omega=015^\circ\text{W}$, 020°W , 026°W covering a northern half of M Acidalium. PEACH (*DPc*)'s careful composition of the image made on 20 Feb ($\lambda=015^\circ\text{Ls}$) at the side of $\omega=161^\circ\text{W}$ describes however the nph as mist-like faintly in contrast with the npc. On an excellent B image made by AKUTSU (*Ak*) on 28 Feb ($\lambda=018^\circ\text{Ls}$) at $\omega=353^\circ\text{W}$,

the npf is shown thick while because of the split description on the R image, the npf looks separated from the npc moderately on the composite image (why don't you take the G image in this delicate season?). **Km's** image on 4 Mar ($\lambda=020^\circ\text{Ls}$) at $\omega=279^\circ\text{W}$ looks to show mainly the npc, while **DPc's** images on the day at $\omega=043^\circ\text{W}$ are nicely processed and show an extension of the np faint condensate through Nilokeras to the morning terminator. PARKER (**DPk's**) B image of the npf on 11 Mar ($\lambda=023^\circ\text{Ls}$) at $\omega=083^\circ\text{W}$ also thickly show together the npf/npc so that no splitting of the npf from the npc. At any rate these work prove to show a faint expansion of the airborne condensate around the npc this period.

♂.....**The NPC:** TYLER (**DTy's**) excellent images made on 16 Feb ($\lambda=013^\circ\text{Ls}$) at $\omega=180^\circ\text{W}$ look to show the existence of the npc while not so distinct because of the duller B image. **DTy** also continued constantly to take images during this period, but we should say his combinations failed generally to depict the npc to be white: Since the npr was one of the main subjects of this season, it must be confusing if the np limb showed a tint similar to the colour of the deserts. On the contrary **DPc's** images have been processed to show the npc continually from $\lambda=013^\circ\text{Ls}(\varphi=12^\circ\text{S})$ to $\lambda=026^\circ\text{Ls}(\varphi=06^\circ\text{S})$ though it was generally duller in colour and brightness: They are as follows (* implies the images also show a faint expansion of the npf): 17 Feb ($\lambda=013^\circ\text{Ls}$)* at $\omega=179^\circ\text{W}$, 183°W , 195°W , 199°W ; 18 Feb ($\lambda=014^\circ\text{Ls}$) at $\omega=215^\circ\text{W}$; 20 Feb ($\lambda=015^\circ\text{Ls}$)* at $\omega=164^\circ\text{W}$, 167°W , 24 Feb ($\lambda=017^\circ\text{Ls}$) at $\omega=135^\circ\text{W}$; 28 Feb ($\lambda=018^\circ\text{Ls}$) at $\omega=098^\circ\text{W}$, 101°W ; 1 Mar ($\lambda=019^\circ\text{Ls}$) at $\omega=078^\circ\text{W}$, 082°W ; 2 Mar ($\lambda=019^\circ\text{Ls}$) at $\omega=070^\circ\text{W}$; 3 Mar ($\lambda=020^\circ\text{Ls}$) at $\omega=051^\circ\text{W}$; 4 Mar ($\lambda=020^\circ\text{Ls}$)* at $\omega=043^\circ\text{W}$. These cover roughly the width of 150°W . Furthermore the images on 13 Mar ($\lambda=025^\circ\text{Ls}$) at $\omega=353^\circ\text{W}$ and on 15 Mar ($\lambda=026^\circ\text{Ls}$) at $\omega=305^\circ\text{W}\sim 313^\circ\text{W}$ show more vividly. On the American side, LOMELI (**ELm's**) images on 24 Feb ($\lambda=016^\circ\text{Ls}$) at $\omega=257^\circ\text{W}\sim 272^\circ\text{W}$ show the differences of the np limb in R, G, and B, and the R proves the presence of the npc. **DPk's** R image on 11 Mar ($\lambda=023^\circ\text{Ls}$) at $\omega=083^\circ\text{W}$ strongly suggest the npc. Finally we make mention of PELLIER (**CPl's**) images made on 12 Mar ($\lambda=024^\circ\text{Ls}$, $\varphi=07^\circ\text{S}$) at $\omega=337^\circ\text{W}$ which provides the npc in R, G and B (and in the composite good in colour and brightness) worthy to be called really the npc.

Visually it was difficult to discern the difference of the npc from the npf as well as hard to grasp the shape of the canopy since the Martian disk was tiny and just vibrating. However as far as the present writer (**Mn**) watched, the relevant position of np limb sometimes sharply glared so that we judged it was because of the npc. On 24 Feb ($\lambda=017^\circ\text{Ls}$), **Mn** recognised it every time at the range from $\omega=357^\circ\text{W}$ to 056°W . On 7 Mar ($\lambda=022^\circ\text{Ls}$, $\delta=7.6''$) **Mn** observed it from $\omega=237^\circ\text{W}$ to 295°W (already it was shining from before the sunset): The shadowy Utopia was visible to the south of the npc. On 8 Mar ($\lambda=022^\circ\text{Ls}$) at $\omega=235^\circ\text{W}\sim 286^\circ\text{W}$, and on 15 Mar ($\lambda=025^\circ\text{Ls}$) at $\omega=165^\circ\text{W}\sim 195^\circ\text{W}$, we similarly observed while we judged the white mist stayed at the morning side.

♂.....**The SPH and the Argyre Condensate:** Since the south pole was already vanishing to the night side because the vernal equinox passed and as well it was not easy to discern the rotation axis, it was difficult to judge some white pall if it was expanded around the south pole or much declined. One of a few images which show the southern pall locating exactly at the southern direction was provided by **DPk** on 2 Mar ($\lambda=019^\circ\text{Ls}$, $\varphi=09^\circ\text{S}$) at $\omega=174^\circ\text{W}$ which shows what we may call the sph to the south of M Sirenum. However this pall seems not necessarily to be centred at the south pole but to decline to the direction of M Sirenum because another image on the day different in longitude by 100°W taken by **DPc** at $\omega=074^\circ\text{W}$ (B) does not show the pall shown by **DPk**, but show the cloud thickly over Argyre (located slightly more southward than the case in January 2006). **Km** also took an image on the day at $\omega=299^\circ\text{W}$ where we should say **DPk's** cloud was hardly seen. **DPc's** images on 1 Mar ($\lambda=019^\circ\text{Ls}$) at $\omega=080^\circ\text{W}$, and on 3 Mar ($\lambda=020^\circ\text{Ls}$) at $\omega=051^\circ\text{W}$ similarly show the Argyre cloud, and so we may suggest the situation remained the same. The Argyre cloud must have been existent from morning to afternoon, and **DPc's** images on 4 Mar ($\lambda=020^\circ\text{Ls}$) at $\omega=045^\circ\text{W}$ (B) show the cloud on the morning side near the CM, and as well show its further



expansion to the afternoon side just as if the northern skirt of the sph. It is possible MAKSYMOWICZ (*SMk*) also saw the area of Argyre clouded on 6 Mar ($\lambda=021^\circ\text{Ls}$) at around $\omega=035^\circ\text{W}$.

The angle which shows the region of M Sirenum was watched from Europe at the beginning of the present period: On 17 Feb ($\lambda=013^\circ\text{Ls}$), *DTy* produced at $\omega=165^\circ\text{W}$, and *DPc* at $\omega=179^\circ\text{W}$, 183°W , 195°W , 199°W . The southern pall looks however not as thick as the case of *DPk* on 2 Mar ($\lambda=019^\circ\text{Ls}$). *DPc*'s images show a vast but faint distribution of condensates from the southern continents to the south, while the only one B image was at $\omega=191^\circ\text{W}$ and it shows the thicker part as declined to the evening side to the south of Phæthontis. *DTy*'s description of the pall in B is weak but quite similar to *DPc*'s. The declined cloud is also seen on *DTy*'s resp *DPc*'s images on 20 Feb ($\lambda=015^\circ\text{Ls}$) at $\omega=151^\circ\text{W}$ resp $\omega=161^\circ\text{W}$. *DTy*'s images on 24 Feb ($\lambda=017^\circ\text{Ls}$) at $\omega=114^\circ\text{W}$ (17:30GMT) also suggest similarly. This cloud patch must have been stretched to the preceding Argyre cloud. At Fukui, NAKAJIMA (*Nj*) and *Mn* observed on 21 Feb ($\lambda=015^\circ\text{Ls}$) at the angles $\omega=026^\circ\text{W}$ (9:30GMT)~ 079°W where the spr looked rather light and at around $\omega=065^\circ\text{W}$ the northern border of the pall was well bounded. On 24 Feb ($\lambda=017^\circ\text{Ls}$) *Mn* saw the spr was considerably light from $\omega=347^\circ\text{W}$, and at $\omega=016^\circ\text{W}$ (10:50GMT) *Mn* noticed the coming of the Argyre cloud from the terminator: *Mn* watched until $\omega=056^\circ\text{W}$, and at around $\omega=046^\circ\text{W}$ the sp pall appeared as if the sph. *DPc*'s B image on 24 Feb ($\lambda=017^\circ\text{Ls}$) at $\omega=132^\circ\text{W}$ show the following part of the Argyre cloud thickly near the limb and a weaker sp pall as well as an extension of cloud down to Thaumasia. *DPc*'s image on 25 Feb ($\lambda=017^\circ\text{Ls}$) at $\omega=122^\circ\text{W}$ (B) shows a thicker sp pall of condensates governing largely the spr. On 26 Feb ($\lambda=017^\circ\text{Ls}$) at $\omega=114^\circ\text{W}$, SIEGEL (*ESg*) visually observed and detected the declined cloud patch thru W47 and recorded the large but less thick sp pall thru W25, W58 et al. So we may say the south circumpolar cloud belt seen by *DPk* on 2 Mar ($\lambda=019^\circ\text{Ls}$) has increased in density around from 20 Feb ($\lambda=015^\circ\text{Ls}$) ~ 24 Feb ($\lambda=017^\circ\text{Ls}$). The global situation on 2 Mar however did not show that the sp canopy was complete, and even on 14 Mar ($\lambda=025^\circ\text{Ls}$), MOORE (*DMr*) showed at $\omega=095^\circ\text{W}$ and 103°W that the Argyre cloud was still particularly bright near the afternoon limb, and looked still thicker than the sp canopy.

We note otherwise that *Ak* showed a cloud patch at a southern part of Noachis which was separated from the one over Hellas on 28 Feb ($\lambda=018^\circ\text{Ls}$) at $\omega=355^\circ\text{W}$ (B). *Mn* similarly saw the similar separation of the clouds on Hellas from Noachis on 4 Mar ($\lambda=020^\circ\text{Ls}$) at $\omega=334^\circ\text{W}$.

♂.....Hellas: The above-cited *Ak*'s B image on 28 Feb ($\lambda=018^\circ\text{Ls}$) at $\omega=355^\circ\text{W}$ shows a white condensate at the southern part of Hellas, and the northern part shows the ground lit (his composition not showing it). *CPI*'s images on 12 Mar ($\lambda=024^\circ\text{Ls}$) at $\omega=337^\circ\text{W}$ similarly show the aspect more clearly on the composite. See also *CPI*'s images on 15 Mar ($\lambda=026^\circ\text{Ls}$) at $\omega=312^\circ\text{W}$. The fine structure of Hellas was caught by *DPc* on the day at 305°W ~ 313°W , and due to the B images at $\omega=303^\circ\text{W}$, 312°W , the condensate looks full inside the Hellas basin, and hence it appears as if the northern part is just ground-lit without mist since the albedo of the part is higher. Visually it is hard to discern this difference, but *Mn* observed on 7 Mar ($\lambda=022^\circ\text{Ls}$) and on 8 Mar ($\lambda=022^\circ\text{Ls}$) that the sp canopy went down to the morning Hellas at around $\omega=255^\circ\text{W}$: The downward tongue is dull and never glossy; its dull whitish colour being very different from the colour of the northern deserts.

♂.....Ascræus and Olympus Montes: Though δ has much decreased, the morning Ascræus Mons and the following Olympus Mons have still been caught by ccd: On 24 Feb ($\lambda=017^\circ\text{Ls}$, $\tau=38^\circ$), *DTy*'s images at $\omega=114^\circ\text{W}$, and *DPc*'s at $\omega=135^\circ\text{W}$ show both. Olympus Mons is easily seen near the CM on *DPc*'s images (more easily on B as a dark spot, as noted previously in CMO #216), but on *DTy*'s it is shown near the terminator. Another big dark spot shown on *DTy*'s must have been the one (shadow?) following the bright Alba Patera.

♂.....Arsia Cloud: Few observations: Just *Mn* observed that the relevant area at the limb was whitish bright on 5 Mar ($\lambda=025^\circ\text{Ls}$) at $\omega=165^\circ\text{W}$, 174°W .

♂.....Elysium: *DPc* revealed a fine detail of Elysium on 18 Feb ($\lambda=014^\circ\text{Ls}$, $\delta=7.6''$) at $\omega=215^\circ\text{W}$: The albedo of the inside of Elysium also looks brighter than the surroundings. The ω angle was nearly the same as the one cho-

sen by HST on 6 May 1999 (while quite different in λ and ϕ). The \AEtheria dark patch has been changing its shape, showing the patch did not originally belong to any of canals enclosing Elysium.

♂.....**Nilosyrtis**: Now that the tilt ϕ of the axis is recovering to the status in 2001 or before, and every marking also look moved gradually up southward: **DPc**'s images on 15 Mar ($\lambda=026^\circ\text{Ls}$, $\phi=6^\circ\text{S}$) at $\omega=305^\circ\text{W}\sim 313^\circ\text{W}$ (also similarly **DTy**'s at $\omega=295^\circ\text{W}$) show a fresh impression of Syrtis Mj, quite wither and slimmer: We should say it is a rare and pleasant occasion to see Nilosyrtis.

♂.....**北極雲**: 北極冠が顕在化する春分($\lambda=000^\circ\text{Ls}$)頃には北極雲は淡くなって峻別し難いのであるが、今期間のように ϕ が未だ南を向いていると、薄い層も厚くなって見える。 $\lambda=015^\circ\text{Ls}$ になっても21Feb($\lambda=015^\circ\text{Ls}$)の熊森(Km)氏の $\omega=015^\circ\text{W}$ 、 020°W 、 026°W に顕れるようにマレ・アキダリウムの北半分を隠す様に強く出ている。然し20Feb($\lambda=015^\circ\text{Ls}$)のピーチ(DPc)氏の $\omega=161^\circ\text{W}$ には北極冠と分離する形で注意深く淡く描寫されており、淡い描寫は正解であろう。28Feb($\lambda=018^\circ\text{Ls}$)の阿久津(Ak)の $\omega=353^\circ\text{W}$ にはBで可成り強く出ているが、Rで分離して、合成像では程良くなっている(この微妙な時期にはG像が存った方がよい)。4Mar($\lambda=020^\circ\text{Ls}$)のKm氏の $\omega=279^\circ\text{W}$ では分離が未だ良くないが北極冠が主體となって居るようである。但し、この日(4Mar($\lambda=020^\circ\text{Ls}$))のDPc氏の $\omega=043^\circ\text{W}$ は北極雲の描寫にも優れ、ニコケラスから朝の方に延びている。11Mar($\lambda=023^\circ\text{Ls}$)の唐那・派克(DPk)氏の $\omega=083^\circ\text{W}$ ではBが過剰に見える為か、矢張り分離が好くない。但し何れもこの期間未だ淡い水蒸氣が未だ立っていることを示している。

♂.....**北極冠**: タイラー(DTy)氏の16Feb($\lambda=013^\circ\text{Ls}$) $\omega=180^\circ\text{W}$ は良像で、ただ、Bのコントラストが悪いため北極冠は鮮明ではないが、存在は判る。DTy氏は以後コンスタントに撮像を試みるが、概して北極冠を白く描寫することに失敗している。北極冠はこの時期の主題であるから、砂漠と同じ色の北極冠では困る。多分B像が適当でない上にGを度外視しているからであろう。これに對してDPc氏の像は色彩輝度こそ鈍いものの以下のように $\lambda=013^\circ\text{Ls}(\phi=12^\circ\text{S})$ から $\lambda=026^\circ\text{Ls}(\phi=06^\circ\text{S})$ まで北極冠を出し續けて美事である(*は北極雲の擴がりも出ている): 17Feb($\lambda=013^\circ\text{Ls}$)* $\omega=179^\circ\text{W}$ 、 183°W 、 195°W 、 199°W ; 18Feb($\lambda=014^\circ\text{Ls}$) $\omega=215^\circ\text{W}$; 20Feb($\lambda=015^\circ\text{Ls}$)* $\omega=164^\circ\text{W}$ 、 167°W 、24Feb($\lambda=017^\circ\text{Ls}$) $\omega=135^\circ\text{W}$; 28Feb($\lambda=018^\circ\text{Ls}$) $\omega=098^\circ\text{W}$ 、 101°W ; 1Mar($\lambda=019^\circ\text{Ls}$) $\omega=078^\circ\text{W}$ 、 082°W ; 2Mar($\lambda=019^\circ\text{Ls}$) $\omega=070^\circ\text{W}$; 3Mar($\lambda=020^\circ\text{Ls}$) $\omega=051^\circ\text{W}$; 4Mar($\lambda=020^\circ\text{Ls}$)* $\omega=043^\circ\text{W}$ 。これで略 150°W をカヴァーしている。更に13Mar($\lambda=025^\circ\text{Ls}$) $\omega=353^\circ\text{W}$; 15Mar($\lambda=026^\circ\text{Ls}$) $\omega=305^\circ\text{W}\sim 313^\circ\text{W}$ 。他に、ロメリ(ELm)氏の24Feb($\lambda=016^\circ\text{Ls}$) $\omega=257^\circ\text{W}\sim 272^\circ\text{W}$ ではR、G、Bでの分離が好く、Rで北極冠が出ていると思われる。DPk氏の11Mar($\lambda=023^\circ\text{Ls}$) $\omega=083^\circ\text{W}$ ではRに強く出ていると思う。12Mar($\lambda=024^\circ\text{Ls}$ 、 $\phi=07^\circ\text{S}$) $\omega=337^\circ\text{W}$ のペリエ(CPl)氏の像はR、G、Bとも揃って色彩輝度とも最も北極冠らしい像を提供している。

筆者(Mn)の肉眼観測では形状を捉えることも、北極雲との區別も困難であるが、殆どの場合北邊が輝くので、北極冠の位置を確認することが出来る。24Feb($\lambda=017^\circ\text{Ls}$)には $\omega=357^\circ\text{W}\sim 056^\circ\text{W}$ の範囲で確認している。7Mar($\lambda=022^\circ\text{Ls}$ 、 $\delta=7.6''$) $\omega=237^\circ\text{W}\sim 295^\circ\text{W}$ では日没前から好く輝いていた。ウトピアがその南に見えている。8Mar($\lambda=022^\circ\text{Ls}$) $\omega=235^\circ\text{W}\sim 286^\circ\text{W}$ 、15Mar($\lambda=025^\circ\text{Ls}$) $\omega=165^\circ\text{W}\sim 195^\circ\text{W}$ でも似たような観測だが、朝方に白霧が出ているような感じもあった。

♂.....**南極雲、アルギュレ雲**: 既に春分を越えているからには南極は見えない上に、極軸が難しい位置にあるから南極雲らしい極雲の観測は難しいが、2Mar($\lambda=019^\circ\text{Ls}$ 、 $\phi=09^\circ\text{S}$) $\omega=174^\circ\text{W}$ のDPk氏の像にはマレ・シレヌムの南に南端を含んでコンモリと南極雲らしい南極雲が見える。然し、南極雲はこの方向に傾いているらしく、 100°W 違いの角度からみた同じ日のDPc氏の $\omega=074^\circ\text{W}$ (B)ではDPk氏の雲は南端には殆ど現れず、改めてアルギュレ上に雲が出ている(一月のものより稍南寄りで變形もしている)如くに見える。Km氏は同日 $\omega=299^\circ\text{W}$ で撮っているがこちらには殆ど強くは顕れていない。アルギュレ絡みの雲はDPc氏の1Mar($\lambda=019^\circ\text{Ls}$) $\omega=080^\circ\text{W}$ 、3Mar($\lambda=020^\circ\text{Ls}$) $\omega=051^\circ\text{W}$ にも回轉軸を外して同じ様に午後に出ているので、マレ・シレヌム方面の観測は無いが似たような状況と思われる。アルギュレ雲は一日中存在するはずで、DPc氏の4Mar($\lambda=020^\circ\text{Ls}$) $\omega=045^\circ\text{W}$ (B)に依れば朝方CM邊りに見えそこか

ら東へも雲が流れていて、南極雲の様相である。マクシモヴィッチ(SMk)氏は6Mar($\lambda=021^\circ\text{Ls}$) $\omega=035^\circ\text{W}$ の南端でアルギュレ雲の前後を見ているのだろうと思う。

マレ・シレナム方向は期間初めヨーロッパから見えていて、17Feb($\lambda=013^\circ\text{Ls}$)にはDTy氏の $\omega=165^\circ\text{W}$ があり、更にDPc氏の $\omega=179^\circ\text{W}$ 、 183°W 、 195°W 、 199°W があるが、2Mar($\lambda=019^\circ\text{Ls}$)のDPk氏の像のように濃くはない。DPc氏の像は可成り広く淡い水蒸気が大陸から南に擴がって見えるが、B像は $\omega=191^\circ\text{W}$ だけで、矢張り夕方パエトンティス南に偏って仕舞っている。DTy氏のBも淡いがそのように見える。その他、20Feb($\lambda=015^\circ\text{Ls}$)のDTy氏の $\omega=151^\circ\text{W}$ 、DPc氏の $\omega=161^\circ\text{W}$ 、24Feb($\lambda=017^\circ\text{Ls}$)のDTy氏の $\omega=114^\circ\text{W}$ (17:30GMT)には何れも夕方に傾いた雲の塊が見えるが、これらはアルギュレに聯なるものであろう。福井での筆者(Mn)と中島(Nj)氏の21Feb($\lambda=015^\circ\text{Ls}$)の $\omega=026^\circ\text{W}$ (9:30GMT)~ 079°W の観測ではアルギュレ雲も含めて南極方面は明るく、 $\omega=065^\circ\text{W}$ では雲の境界も明確な様に見えるが、24Feb($\lambda=017^\circ\text{Ls}$)でも南極方面は $\omega=347^\circ\text{W}$ から相當に明るく見えており、Mnの $\omega=016^\circ\text{W}$ (10:50GMT)にはアルギュレ雲が朝方に出て来ており、 $\omega=056^\circ\text{W}$ まで見たが、 $\omega=046^\circ\text{W}$ 邊りから南極雲らしく眺められた。DPc氏の24Feb($\lambda=017^\circ\text{Ls}$) $\omega=132^\circ\text{W}$ (B)にはこのアルギュレ雲塊の後裔の他に南極中心に靄の擴がりがあるようで、タウマジアにもはみ出している。DPc氏の25Feb($\lambda=017^\circ\text{Ls}$) $\omega=122^\circ\text{W}$ (B)には更に顕著で大きく支配している。26Feb($\lambda=017^\circ\text{Ls}$) $\omega=114^\circ\text{W}$ にはシーゲル(ESg)さんの眼視観測があり、午後に傾いた圓い明白な雲塊をW47で見ている他、W25、W58等で南極地方を覆う靄を記録している。従って、20Feb($\lambda=015^\circ\text{Ls}$)以降、24Feb($\lambda=017^\circ\text{Ls}$)邊りから2Mar($\lambda=019^\circ\text{Ls}$)のDPk氏の像に繋がると思われる。然し、前述の様にこの時点では南極雲は完全ではなく、14Mar($\lambda=025^\circ\text{Ls}$)のムーア(DMr)氏の $\omega=095^\circ\text{W}$ 、 103°W での像でもアルギュレ上の雲は午後端に明るく捉えられており、南極周邊よりまだ濃いと思われる。

他に獨立して、Ak氏は28Feb($\lambda=018^\circ\text{Ls}$) $\omega=355^\circ\text{W}$ (B像)でノアキスの南に白雲の塊を捉えており、これはヘッラス上のものと分離している。筆者(Mn)も4Mar($\lambda=020^\circ\text{Ls}$) $\omega=334^\circ\text{W}$ でこの分離を見ている。

♂……ヘッラス : Ak氏の28Feb($\lambda=018^\circ\text{Ls}$) $\omega=355^\circ\text{W}$ (B像)にはヘッラスの南部には白雲があり、北部は地肌を見せている様に見えるが(合成像では判らない)、12Mar($\lambda=024^\circ\text{Ls}$)のCPI氏の $\omega=337^\circ\text{W}$ にも同じ様相が合成像で出ている。CPI氏の15Mar($\lambda=026^\circ\text{Ls}$) $\omega=312^\circ\text{W}$ にも見える。内部構造は同日のDPc氏の 305°W ~ 313°W に詳しくて、 $\omega=303^\circ\text{W}$ 、 312°W のB像に依れば、水蒸気はヘッラス一杯に出ているが、北部は地肌のアルベドが高い爲に薄く、地肌が出ているように見える。肉眼ではこの區別は困難だが、筆者(Mn)の観測で、7Mar($\lambda=022^\circ\text{Ls}$)、8Mar($\lambda=022^\circ\text{Ls}$)の $\omega=255^\circ\text{W}$ 邊りでは朝方のヘッラスに南から南極雲が下りてきている感じである。北の砂漠と色彩が對照的だが、鈍く艶がない。

♂……アスクラエウス・モンズ、オリュムプス・モンズ : 視直徑 δ は小さくなったが、ccdでは未だ朝方のアスクラエウス・モンズとオリュムプス・モンズが赤黒く捉えられている。24Feb($\lambda=017^\circ\text{Ls}$ 、 $i=38^\circ$)のDTy氏の $\omega=114^\circ\text{W}$ 、DPc氏の $\omega=135^\circ\text{W}$ には兩方とも出ている。オリュムプス・モンズはDPcではCM近いから直ぐ知れるが(Bで明確、理由は前號)、DTy氏ではまだ朝縁に近いから注意する。DTy氏に大きく出ている蔭はアルバ・パテラの後方に出ているものであろう。

♂……アルシアタ雲 : 15Mar($\lambda=025^\circ\text{Ls}$)の筆者の $\omega=165^\circ\text{W}$ 、 174°W の観測では午後端でのアルシア附近で明るさがあり、白いと判断した。

♂……エリュシウム : DPc氏の18Feb($\lambda=014^\circ\text{Ls}$ 、 $\delta=7.6''$) $\omega=215^\circ\text{W}$ にはエリュシウムの内部の構造が見え、全體が周りより明るく見えている。アエテリアの暗斑が往時と崩れて来ているが、もともとエリュシウムの外縁で無いことが明らかである。

♂……ニロシュルティス : 漸く中央緯度 ϕ が2001年並に回復し、シュルティス・マイヨルが北向きになってきたが、15Mar($\lambda=026^\circ\text{Ls}$ 、 $\phi=6^\circ\text{S}$)のDPc氏の 305°W ~ 313°W では(DTy氏の $\omega=295^\circ\text{W}$ でも同じだが)、シュルティス・マイヨルは當時より痩せて、而もニロシュルティスが見えるのが珍しい。

♂……In the next issue we shall review the observations made during a one-month period from 16 March 2006 ($\lambda=026^\circ\text{Ls}$ 、 $\delta=6.3''$) to 15 April 2006 ($\lambda=040^\circ\text{Ls}$ 、 $\delta=5.3''$).

便り

Letters to the Editor

●.....Date: Sat, 25 Feb 2006 00:01:16 -0000
Subject: Mars images (February 24th, 2006.)

Hi all, Here are some images from this evening. Pretty good seeing, but very gusty easterly winds and lots of scattered low clouds with poor transparency above that due to high clouds.

Some interesting detail is seen now Solis Lacus has become visible. Arsia, Ascræus and Olympus Mons are all seen as small dark spots in Red. Olympus also looks dark in blue. Brilliant clouds over Ophir/Candor. The SPH is bright with an extension of mist extending across Solis Lacus. The NPC edge is seen in red.

http://homepage.ntlworld.com/damian.peach/2006_02_24rgb_DAP.jpg

○.....Date: Sat, 25 Feb 2006 21:21:54 -0000
Subject: Mars images (February 25th, 2006.)

Hi all. Here are some images from this evening. Really terrible conditions with easterly winds gusting to ~40km/h at times!. Seeing was fair, but lots of scattered low clouds.

Much the same as yesterday. Olympus Mons is seen as a dark spot near the terminator. Ascræus and Arsia Mons are also seen as dark spots. The SPH is bright to the south of Solis Lacus. Some mist over Auroræ Sinus.

http://homepage.ntlworld.com/damian.peach/2006_02_25rgb_DAP.jpg

○.....Date: Sat, 4 Mar 2006 12:30:02 -0000
Subject: Mars images (February 28th, 2006.)

Hi all, Here are some images from Feb 28th. Fair seeing. Solis Lacus is central. The SPH is bright, also a bright mist over Chryse. The NPC is also seen. Ascræus and Arsia Mons can be seen as small spots.

http://homepage.ntlworld.com/damian.peach/2006_02_28rgb_DAP.jpg

○.....Date: Sat, 4 Mar 2006 14:34:22 -0000
Subject: Mars images (March 1st, 2006.)

Hi all, Here are some images from March 1st. Good seeing. Note the brilliant cloud over Argyre in Blue. Also Ascræus Mons dark in B and R. NPC is visible.

http://homepage.ntlworld.com/damian.peach/2006_03_01rgb_DAP.jpg

○.....Date: Mon, 6 Mar 2006 16:04:37 -0000
Subject: Mars images (March 2nd, 2006.)

Hi all, Here are some images from March 2nd. Good seeing. The bright cloud over Argyre remains prominent. The NPC is shining brilliantly.

http://homepage.ntlworld.com/damian.peach/2006_03_02rgb_DAP.jpg

○.....Date: Mon, 6 Mar 2006 17:08:05 -0000
Subject: Mars images (March 3rd, 2006.)

Hi all, Here are images from March 3rd. Very good seeing. The bright cloud in Argyre persists, while the NPC is brilliant.

http://homepage.ntlworld.com/damian.peach/2006_03_03rgb_DAP.jpg

○.....Date: Mon, 6 Mar 2006 18:01:18 -0000
Subject: Mars images (March 4th, 2006.)

Hi all, Here is the last set of images from the recent spell of good weather. Good seeing again. Note the thick SPH has merged with the Argyre cloud. Mist over Chryse. Brilliant NPC. Also note the small condensation (cloud?) over Nilokeras.

http://homepage.ntlworld.com/damian.peach/2006_03_04rgb_DAP.jpg

○.....Date: Mon, 13 Mar 2006 23:29:37 -0000
Subject: Mars images (March 13th, 2006.)

Hi all, Here is an image from this evening. Weather has been poor in the evenings recently, and it didnt clear this

evening until Mars was 3hrs past the meridian. Only a red image was obtained due to worsening conditions. Seeing was poor. All looks normal at this longitude. The NPC is clearly seen.

http://homepage.ntlworld.com/damian.peach/2006_03_13red_DAP.jpg

○.....Date: Sat, 18 Mar 2006 16:02:11 -0000
Subject: Mars images (March 15th, 2006.)

Hi all, Here are some images from March 15th. Very good seeing. A misty Hellas and brilliant NPC can be nicely seen. Deucalionis Regio looks quite bright.

http://homepage.ntlworld.com/damian.peach/2006_03_15rgb_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2006_03_15bw_DAP.jpg

○.....Date: Sat, 18 Mar 2006 20:49:57 -0000
Subject: Mars images (March 18th, 2006.)

Hi all, Here are some images from this evening. Rapidly deteriorating seeing, with gusty winds. Little change from the 15th.

http://homepage.ntlworld.com/damian.peach/2006_03_18rgb_DAP.jpg

○.....Date: Fri, 24 Mar 2006 23:45:03 -0000
Subject: Mars images (March 22nd, 2006.)

Hi all, Here are some Mars images from the 22nd. Seeing was very good at times. The Elysium hemisphere was well placed. Some mist over Syrtis Major and Ausonia. Elysium itself is mist free. The NPC is brilliant bordered by the albedo markings of Lemuria (this was well seen visually also.)

http://homepage.ntlworld.com/damian.peach/2006_03_22rgb_DAP.jpg

Best Wishes

Damian PEACH (デミアン・ピーチ Bkh UK 英)

●.....Date: Sat, 25 Feb 2006 00:57:34 -0000
Subject: Mars 24th Feb

Hi guys; We had a brief clearing at sundown, windy but steady seeing. C14 at about f37 trutek type 1 red and type 2 blue. Lumenera 075 Cheers

○.....Date: Tue, 28 Feb 2006 09:11:35 -0000
Subject: Mars 25th Feb

Hi Guys, Here's Mars from the 25th of this month, even at 7.2 secs The Eye of Mars still stares back at you.

C14 JMI ngfdro+1,25 Celestron mirror diagonal & 2x televue barlow extended 120mm giving f43 trutek type 1 red type 2 blue filters in ATK block with drawers and Lumenera 075 Best wishes

○.....Date: Wed, 1 Mar 2006 13:30:45 -0000
Subject: Saturns storm

Hi Guys, I imaged Saturn last night in very poor seeing, but the image taken with the trutek type 2 green filter does show the weak remains of the storm.

○.....Date: Wed, 1 Mar 2006 13:35:39 -0000
Subject: Fw: Saturns storm

sorry guys the last one escaped before I finished it catch you later I hit send instead of file !!

○.....Date: Wed, 1 Mar 2006 13:54:25 -0000
Subject: Saturn 28th Feb

Hi guys, I imaged Saturn last night in very poor seeing, but the image taken with the trutek type 2 green filter, does show the weak remains of the storm (on the left hand side of the planet).

This has only been the second opportunity for us to image it from this location in the UK, with cloud being coincident with it rotating into view.

C14 at F40 single avi with the Lumenera 075

Best wishes

○.....Date: Thu, 2 Mar 2006 09:35:36 -0000
Subject: mars from the 28th Feb

Hi Guys, Here is Mars from the 28th at sunset time, once again registax managed to tame 12000 out of 20000

frames from the bucking images. C14 f40 Lumenera 075 running at 108 fps for red and 55 fps for blue.

○.....Date: Thu, 2 Mar 2006 21:45:14 -0000
Subject: Mars from the 1st March 2006

Hi Guys, We had some pretty good seeing at sundown yesterday, c14 @ f40 Best wishes

○.....Date: Sat, 4 Mar 2006 13:49:35 -0000
Subject: Mars 2-March

Hi guys, This is Mars from the 2nd, spoil a little by a nearby bonfire about to woomph into full flame and wipe out my second red. C14 f40 Best wishes

○.....Date: Sun, 5 Mar 2006 13:07:19 -0000
Subject: Mars from 3-3-06

Hi Guys, Here's another Mars set from our clear sunsets with fair seeing, C14 @f40 Best wishes

○.....Date: Tue, 7 Mar 2006 16:55:22 -0000
Subject: Mars 4th March

Hi Guys, Here is Mars from the 4th's sundown, seeing was quite good again at this time. Plenty of movement but also plenty of detail. C14 @ f40

○.....Date: Tue, 7 Mar 2006 21:52:35 -0000
Subject: Mars 4th R SG B set

Hi Guys here is another image with R and B from the 4th, Sunset was at 17:48 here in the UK. Best wishes

○.....Date: Thu, 9 Mar 2006 15:09:00 -0000
Subject: LUMINANCE OBSERVATIONS

Hi guys, As it has been raining for three day one looks a little more closely at old images. You may find the attached interesting. The link below explains it in more detail.

http://www.david-tyler.com/saturn_lum.asp

○.....Date: Fri, 17 Mar 2006 23:32:00 -0000
Subject: Mars 15-March

Hi Guys; Here is a set of Mars from the good seeing of the 15th. The blues are pretty shabby from being taken before sunset. The red filter works fine in a blue sky though. The "region of interest" feature on the lumenera allows one to box the subject closely, which puts up the potential frame rate. With the tiny Mars @ 6 secs the small ROI box allows 100 fps. Two quick succession avis of 54 secs each give you 10800 frames to play with in two mins. Using 6000, results in a smooth image and good detail. C14 @ f41 trutek filter

Dave TYLER (テヴァイット・タイラー Bkh UK 英)

<http://www.david-tyler.com/>

●.....Date: Sat, 25 Feb 2006 15:30:22 +0000
Subject: Mars Feb. 24

Managed to get Mars in very difficult, windy conditions last night in a thinning in the clouds at dusk. However, seeing was good. It shows that wind at surface level does not always equate to bad seeing - advertising the advantages of a dome, which I don't have.

Taken slightly earlier than Damian's, this confirms that Arsia and Ascreaeus Mons were showing as dark spots near the CM. Interesting that is is still possible to image these with the disk at 7.2" (focal ratio pushed to f74). Bright clouds, as Damian noted, also over S pole and Candor, N of Solis Lacus, near terminator.

○.....Date: Thu, 2 Mar 2006 15:20:52 +0000
Subject: Mars March 01

Another attempt to image the ever-shrinking Mars. Poor seeing, images a bit noisy, and nothing much shown in B.

David ARDITTI (テヴァイット・アーティ Greater London 英)

<http://www.davidarditti.co.uk/observatory>

●.....Date: Mon, 27 Feb 2006 19:21:21 -0800
Subject: Mars February 24, 2006

Some more images; hope they're of some use.

Best Wishes,

Ed LOMELI (エド・ロメリ Sacramento CA 美)

●.....Date: Tue, 28 Feb 2006 17:53:55 +0900
Subject: mars 27 Feb.2006

こんにちは、火星も7秒と小さくなってしまい、きびしきになってきました。

○.....Date: Wed, 1 Mar 2006 16:17:14 +0900
Subject: mars 28 Feb. 2006

こんにちは、久々にBJ-41Lを使って見ましたが、ToUcamとの違いは歴然でした。

Dear Observers; Please find attached a set of my recent Mars images. I used a cooled camera this time to produce better images. Best wishes

○.....Date: Sat, 4 Mar 2006 13:20:25 +0900
Subject: mars image 01 mars 2006

こんにちは、三月1日の火星画像を送ります。まだ撮れそうです。

○.....Date: Tue, 7 Mar 2006 12:17:51 +0900
Subject: Images of Cebu, The Philippines



こんにちは、セブ島は今週、雲が多く雨が降っています。例年になく晴れない日が多いのは温暖化の影響でしょうか？ 星も少ししか見えませんので南国の綺麗な画像をお楽しみ下さい。四月には十日間、日本へ戻る予定でいます。

○.....Date: Wed, 8 Mar 2006 16:30:50 +0900
Subject: 阿久津です

南様、体調がすぐれないと村上さんから先日、聞いておりました。日本はまだ寒い事と思いますのでどうか気を付けてください。宮崎さんへはこれから連絡しようと思います。

セブ島もいまいち天気が悪く、これも温暖化の影響なののでしょうか？ 雨が今でも毎日の様に降っています。お陰で温度が上がらず過ごしやすくはなっています。火星はもう少しは撮れそうですがホテルからでは条件が悪すぎますね。ではまた。

○.....Date: Tue, 14 Mar 2006 14:31:19 +0900
Subject: Lunar

こんにちは、セブは暑くなってきました。晴れ出してきましたので、気温も上がってきました。先週から少し月が見えていたので撮ってみました。ToUcamでもアルプス谷の中の細い谷が見えています。

○.....Date: Tue, 21 Mar 2006 18:48:26 +0900
Subject: Jupiter images 18 March 2006

こんにちは、18日、セブ市内のChris宅で木星を見ることが出来ました。夜の12時ぐらいまでは雨が降っていましたが、その後晴れて朝方まで木星を見ることが出来ました。気流の良い時には20cmSCでもかなりの解像度が得られます。GRS後方のBAは赤味を帯びだしています。BAが赤いことはChristopher GO氏が報告してからNASAの観測者も注目し、四月初めにHSTが観測する情報があります。彼はこの観測から世界中に知れ渡りました。

阿久津 富夫(Tomio AKUTSU セブ The Philippines)

●.....Date: Wed, 01 Mar 2006 10:01:20 +0100
Subject: February drawings on their way

Dear Masatsugu, Another month has passed, and today I shall post my Mars drawings from February to you. Not very many of them, I'm afraid! I can't remember having seen so many overcast and/or foggy evenings during one single month as has been the case in February.

Springtime doesn't seem to be just around the corner here yet. We were snow-free for a couple of days, but now new snow has fallen, and the weather forecast says more snow and frost is on its way. The whole thing seems a bit unusual, as we in Denmark don't normally have snow lying on the ground almost continually for most of the winter; but that's how it has been this time. What is it like in Japan at present?

It's getting difficult to observe Mars, too. The disk is small, as you know, and prime observing time right now coincides more or less with our family's dinner time, which is BAD!



I think I will enclose some pictures for you of our vacation home at different times of the year. The first picture's name - *Mira paa is* - means "Mira on ice" ↑, and the picture shows her on the frozen pond last winter, with the house in the background. The second one - *Huset*, meaning The House - shows, ah, well, the house, and the third one - *Soeen*, meaning The Lake, or, as it is, The Pond - shows Mira at the pond during summer. The pond is too big to show in its entirety in just one picture, it is about 1200-1500 m². All the best,

Elisabeth SIEGEL (エリサベト・シーゲル Malling 丹麥)

●.....Date: Fri, 03 Mar 2006 09:44:56 +0900
Subject: Mars-2006-03-02-KUMAMORI

撮影を始めると曇ってきてしまい、一画像のみとなりました。視直径が小さくなってきたので、報告する火星像のサイズをオリジナルにいたします。今までは撮影画像の66%に縮小しておりました。

○.....Date: Mon, 06 Mar 2006 13:44:21 +0900
Subject: Mars-2006-03-04-KUMAMORI

昼間の日差しにシーイングを期待していたのですが、夕方から思っている以上に冷たい風が吹いて火星像は揺れていました。

よろしく願いたします。

熊森 照明 (Teruaki KUMAMORI 堺 Osaka)

●.....Date: Fri, 3 Mar 2006 17:53:27 -0500
Subject: a bit of saturn weather

Greetings - Attached is an image of saturn taken just before 8 inches of snow - a stack of 800 unfiltered luminance frames captured over 4 minutes centered on 3:23UT on March 2 combined with RGB data. The location of the (very) faint remains of the white storm is indicated in the lower image, along with two small bright regions in the SEB - these appear to be the same spots captured by Ralf Vandebergh on Feb 1. best wishes -

<http://www.avertedimagination.com/images/saturnweather030106.jpg>

○.....Date: Mon, 6 Mar 2006 13:08:15 -0500
Subject: a couple of saturn movies

Hi all - Here are a couple of movies showing the wonderful geometries of saturn as viewed from earth.

<http://www.avertedimagination.com/images/saturn2006.gif>

http://www.avertedimagination.com/images/saturn04_06.gif

The first shows the changing shadows, ring plane opening and opposition ring brightening as seen over the current apparition - the second shows the perspective over the last three apparitions.

All images taken with the 10" A/P mak but with different cameras over the years. Many thanks to Richard Bosman for his help smoothing the transitions.

Hope you enjoy them! best wishes -

Alan FRIEDMAN (アラン・フリードマン Buffalo NY 美)

●.....Date: Mon, 6 Mar 2006 22:24:05 -0600
Subject: RE: On Your Excellent Mars Images

Hello Masatsugu, Thank you for your interest in my Mars images. I would be glad to provide you any Mars images I have and I am excited that the few I took on November 11 show the "*Canon Lau phenomenon*" you describe. I have attached all three composite images of Mars that I took that night. I have also attached some details on the exact times that the different exposures were made for the composite images.

I have sent you the JPEG versions of the images but I can provide just about any format you request. Let me know if you would like any of the images in a different format.

I will also provide you all the images that I have from November 22, 23 and 30. I should be able to send them to you in the next couple of days. I have to retrieve them off another disk.

I would be honored to have any of my images included in the CMO. You may use any of the images as you see fit for your publication.

I just started imaging Mars back in September 2005. Since I am still learning how to process these images, I have a backlog of images. I am hoping to be able to complete most of them over the next month and submit

them to the archive. If you would like me to also send them for your Mars Gallery just let me know any instructions you may have for submitting the images.

Thanks again for you complements and I wish you luck with your study of the "Canon Lau phenomenon". I should be able to get you the images from November 22, 23 and 30 in the next couple of days. Best Regards,

○.....Date: Thu, 9 Mar 2006 21:57:18 -0600
Subject: Mars Images from 22, 23 and 30 Nov-2005

Dear Masatsugu, Attached are my images from November 22, 23 and 30. I have tried to format them to agree with the information that you sent. Let me know if you have any problems with them. Also let me know if you need any additional information or have any other suggestions.

I will submit further images I have as I have a chance to process and format them.

I am also looking forward to the next Mars apparition

in 2007/2008. After the 2005 apparition I have really caught the "Mars bug". Thanks again for your interest in my images. Best regards,

○.....Date: Thu, 16 Mar 2006 21:39:28 -0600
Subject: RE: Info & Ask from CMO

Dear Masatsugu, Attached are my images from 06 Dec, 07 Jan, 09 Jan and 12 Jan. I have a few more for 14 Jan and 15 Jan which I will send you shortly.

Thanks for the link to CMO #314. I have enjoyed browsing the website and reviewing the articles. You guys have put together an excellent website!!! ..

I hope to get the 14 Jan and 15 Jan images to you in the next couple of days. Best Regards,

○.....Date: Sat, 18 Mar 2006 17:05:24 -0600
Subject: Mars Images 14 Jan and 15 Jan

Dear Masatsugu, Attached are my images from 14 Jan and 15 Jan. The seeing was pretty bad on 14 Jan, so not much detail in the image. It's been difficult for me to get

TEN YEARS AGO (127)

---CMO #173 (25 March 1996)---

この号は「ドイツ特集」の趣があるのだが、それは後述するとして、先ずALPOのニュースが *Martian Chronicle* から抜粋されている:JBs氏がRecorderからretireしたこと、一月のKitt PeakのT CLANCY氏の電波観測による黄雲騒ぎを派克(DPk)氏達が白昼の写真で否定したこと(#171既報)等が挙げられている。LtEではGianni QUARRA氏の前年の九月(27 Sept 1995)にPic-du-Midiで撮った土星の写真が送られてきている他、Mike MATTEI氏が#171の記念號の表紙を轉寫したマウス・パッドを送ってくれている。David GRAHAM氏のLtEでは前年の八月に Lick (Mt Hamilton)に一週間、T DOBBINS、W SHEEHAN、S O'MEARAと一緒に滞在し、土星の環の消失だけでなく木星や天王星、海王星を観察した咄が書かれている。土星の白斑についても詳しいが、GRAHAM氏は既に土星課長である。前任のA HEATH氏もLtEを寄せられ、辞めてからもお元気で百武彗星に関心がある。Hyakutakéについては、松本直弥氏、村上昌己氏なども触れている。福井の天文臺でも23Marに核と不思議な吹き出しを見ていることがメモしてある(Ns氏の星野写真もある)。德國WürzburgのCh SCHAMBECK(CSc)氏もHyakutakéに触れているが、これは德國特集の第一段で、彼は"I was surprised about hearing from you that you live in a Japanese sister City of Würzburg. You cited Max Dauthendey who was born in Würzburg and wrote 'Die acht Gesichter am Biwasee' just the lake where you come from"と述べる。實際、琵琶湖八景を擁する大津OtsuはWürzburgの姉妹都市なので、解説に數頁を割いた。彼は續けて"We celebrate this year the 200th birthday of another man who merits to remember." この偉人もWürzburg生まれで、その名もPhilipp Franz von SIEBOLD。CSc氏も醫學畑なので、こちらに詳しく、長崎についても觸れている。私が長崎のシーボルト館を訪れるのは八年後である。1996年には日獨兩國で同じ圖柄の切手が出た。Würzburgにもシーボルト博物館が出来ている。尚、CSc氏は1988年の接近時のドイツのコーディネーターであった。ドイツ特集第二段はBerlinのキルヘルム・フェールステル天文臺(WFS)の歴史と現状の紹介で、W MEYER氏の資料による。ここはAKPと関係があったのだが、後者はその後消息が知れない。ドイツ特集第三段は最後尾の『夜毎餘言』LIIで、私の好きなThe Dave Brubeck Quartetの"Brandenburg Gate, Revisted"(1963年)について述べたものである。主曲はサンディエゴ交響樂團をバックに甘分續く。古いLPだから久しく聴いていないが、音色は浮かぶ。 南 政 次 (Mn)



any Mars images recently. Due to trees and obstructions at my location, Mars is out of reach by the time it gets dark here. So right now I don't have any observations later than January 15th.

I will send you my earlier images as I get them processed and formatted. Best Regards,

○ · · · · · **Date: Mon, 20 Mar 2006 08:46:41 -0600**
Subject: RE: Mars Images 14 Jan and 15 Jan

Dear Masatsugu, Thanks for the information. I had noticed the dust patch on the 12 Jan images when I processed the images that morning. However, it was cloudy the following night and I was disappointed not to get an image on 13 Jan. The seeing was really bad on the next evening 14 Jan resulting in some pretty soft images that didn't show the dust patch. Sorry, but I don't have any more images from that time period.

On the 12 Jan images I thought I also detected a small bright patch on the north eastern edge of Syrtis Major. I'm not sure if this was another small dust patch or maybe a small cloud feature. It shows up fairly well in the blue image so maybe it is a small cloud.

From my backyard I had somewhat limited access to Mars. I live in a wooded area and the trees limited my ability to acquire Mars for only about 2 hours. I was lucky this was the 2 hours just before Mars transited and was high in the sky. Best Regards,

○ · · · · · **Date: Wed, 22 Mar 2006 22:04:59 -0600**
Subject: RE: Mars Images 14 Jan and 15 Jan

Dear Masatsugu, First, I want to say that I am new to CCD imaging. In fact, the first CCD images I took where of Mars back in September 2005. So I am still learning about all of the nuances and techniques associated with CCD imaging. By no means do I consider myself an expert. I certainly don't yet have the experience of the guys you mentioned. In fact some their images are what inspired me to start trying to image the planets!

Early on I was just taking R, G, B exposures. My original objective was to try and capture as much detail on Mars as I possibly could. One night I decided to try shooting a luminance exposure. I noticed that the camera gains I used for the L exposure were significantly less than the RGB exposure gains. Hopefully I could push the enhancement of the L image more than the RGB image before noise would begin to show up in the image. When I processed the images from that night I thought I got better image quality when I used the LRGB composite technique. So I continued to shoot Mars using the LRGB technique.

I worried about the rotation of Mars smearing the image detail. So I also thought that trying to extract most of the spatial detail out of the L image taken over a shorter period of time than the RGB images might be helpful. I also argued to myself that most of the spatial information of the Mars images was contained in the Luminance portion of the image. The Chrominance portion of the image seemed to have less spatial detail. With this in mind, I decided to use less enhancement on the R, G, B exposures than the L exposure. I thought this should help preserve the linearity of the RGB information and also keep the Chrominance noise to a minimum.

Also, with less enhancement applied to the RGB exposures I thought I should see fewer artifacts from the rotation of Mars on the Chrominance portion of the image.

So this was my justification for using the LRGB technique on Mars. Being somewhat naive, I was not aware

of the concerns that the LRGB technique could reduce the quality of the cloud features. However, in my limited experience with the Lumenera camera and Astronomik filters, the LRGB technique didn't seem to attenuate the cloud features. I may have an explanation for this. The LU-075M uses the Sony ICX424AL CCD chip. While the sensitivity of this CCD detector peaks in the Green, the Blue sensitivity seems comparable to the Red. As a result, the cloud features (which have better contrast in Green and Blue) don't get washed out by the Red signal in the Luminance exposure. For your reference, I have attached a graph of the sensitivities for the filter and CCD detector that I extracted from the datasheets.

I had heard of a number of imagers using a synthetic Green image. If I understand correctly, this is an attempt to reduce the rotation effects by reducing the total exposure time for the color image. Or conversely, it allows more time for the R and B exposures for the same amount of planet rotation. It makes sense that the RsGB technique should work for Mars since there is not much green vegetation on Mars. The Green images of Mars at first glance do appear to be a simple linear combination of the Red and Blue images. However, I never tried the RsGB method because I didn't seem to have much problem with rotation effects in my images. As a result I thought that it would be best to acquire a real Green image. Also since I was still trying to understand all this imaging stuff I thought I would keep it simple and straightforward.

My guess is that using a real Green exposure will produce the best color balance for the final image. Any subtle variations in the Green channel that cause it to deviate from a simple linear combination of the Red and Blue channels would be lost in the synthetic Green images. Also with the interference type RGB filters like the Astronomik, there is very little leakage from Green into Red and Blue. This means that any little green men on Mars would go undetected in the RsGB images! :)

I have struggled with the color balance on the Mars images. When present and bright, the SPC provides a good check for the white point. But sometimes it shrinks and gets dim. So most of the time I try to achieve a uniform color with a Hue angle of 22 to 26 for the bright regions of the surface of Mars.

I have noticed that sometimes I get a bright white NPH. But sometimes the NPH appears really blue. I have attached two images from 22 Oct and 14 Nov that show this effect. The NPH seems to be whiter when it appears denser like in the 14 November image. I'm not sure if this effect is real or if it is a problem with the color balance of my images. Any comments you may have on this effect would be appreciated.

Anyway, it has taken me a while to figure out how to process all the Mars data I acquired. Each week I discover something new and feel like I have to go back a rework all my previous images. As a result I now have a backlog of images to complete. But thanks again for your interest and comments on my Mars images. I'll be sending you more as I slowly work on the pile of data I now have. Maybe I'll be better prepared for the next Mars apparition.

I met Ed Grafton a number of years ago. He was once a member of *Houston Astronomical Society* of which I am currently the treasurer. I live on the north side of downtown. I believe Ed lives about 40 to 50 km from

here on the south side of town. Houston is a fairly large city and most of it is wooded. You have to travel a fair distance west of here before you get out of the wooded areas. I need to look up Ed sometime in the future. I would love to pick his brain about imaging the planets!!
Best Regards,

Bill FLANAGAN (ウィリアム・フラナガン Houston TX 美)
http://homepage2.nifty.com/~cmons/2005/index_WFI.html

●.....Date: *Wed, 8 Mar 2006 22:59:56 EST*
Subject: *Mars: March 8, 2006*

Hi - Here is my latest image of Mars March 8, 2006 to be posted on the 2005 Mars watch. Many Thanks,

Frank J MELILLO (フランク・メリッロ NY 美)

●.....Date: *Tue, 14 Mar 2006 19:47:16 +0100*
Subject: *Mars, mach 12th 2006*

Hi all, seeing was good on the 12th and the pattern of details is well recognizable despite the 6.4" size.

<http://www.astrosurf.org/pellier/M060312-CPE>

The spring-time NPC is visible at north.

○.....Date: *Sat, 18 Mar 2006 12:46:08 +0100*
Subject: *Mars, march 15th 2006*

A new set under fairly good seeing.

<http://www.astrosurf.org/pellier/M060315-CPE>

Autumn clouds are now growing inside Hellas

Christophe PELLIER (クルストフ・ペリエ nr Paris 法)

●.....Date: *Thu, 09 Mar 2006 23:24:27 +0000*
Subject: *Mars Images*

Hi All, I have attached some belated Mars images from 2 March. Best,

○.....Date: *Tue, 14 Mar 2006 19:03:02 +0000*
Subject: *Mars Images*

Hi All, I have attached some Mars images from 11 March. Increase in clouds. NPC rim visible. Best,

Don PARKER (唐那・派克 Miami FL 美)

●.....Date: *Tue, 14 Mar 2006 21:46:52 -0700*
Subject: *Back at Last Mars - March 14, 2006*

Hi all: It has been a while since I last posted a Mars image, or any image for that matter. I have been doing

some imaging with my 10", but have not posted them.

Most of my time since late October has been spent rebuilding my 14.25" Classical Cassegrain. It is pretty much done now and here are my first efforts. The collimation is off a bit after an "incident" last night, but is still close. Of course seeing from my desert site is still more poor than good.

The primary was expertly re-polished and a new secondary was ground by Michael Lockwood of Champaign, Illinois. He recently was featured in *Sky and Telescope* with a Planetary 10" F8.8 Dobsonian. Though only an ATMer, he is truly an expert and professional in every way.

At any rate, I am the happy parent of a much improved 14.25" F/21 Classical Cassegrain. I expect it to serve me well. Saturn and Jupiter can be imaged at prime focus with my ATK1HS 1/4" chip.

I leave for Germany next week on business so I will be deprived of using it for a few weeks, but when I return I hope to continue to image Mars well into the early Summer. Thanks

David MOORE (デーヴ・ムーア Phoenix AZ 美)

●.....Date: *Sun, 19 Mar 2006 16:28:44 +0000*
Subject: *Mars 2006-03-19*

Hello all, Here's my Mars image for today. Seeing was fair, 4/10 C-14, 35cm SCT @ f/33 ToUcam 1/25 sec, 30 fps. Registax 3, 2500 frames. Photoshop 7

Rolando CHAVEZ (ロラント・チャヴェス GA 美)

●.....Date: *Tue, 21 Mar 2006 21:17:54 -0500*
Subject: *new email address (kr.tatum at verizon.net)*

Dear Masatsugu, Thank you for sending me the CMOs! Unfortunately, poor seeing and a lingering cold kept me from observing recently. I was pleased to see the photograph of you and other OAA folks in the Bill Sheehan article. Sincerely,

Randy TATUM (ランディ・テータム Richmond VA 美)

☆☆☆

シー・エム・オー・フクイ

中島 孝 Nj

★私事ですが、三月下旬愛蘭土旅行(ジョイス他)に出ますので留守を致します。不悪。

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

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