

MARS

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OBSERVATIONS

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This article deals with the observations made during the one-month period

from 16 September ($\lambda=315^\circ\text{Ls}$) to 15 October ($\lambda=331^\circ\text{Ls}$)

in which the apparent diameter went up from $\delta=8.8''$ to $\delta=10.7''$. Since the half-life period of the Noachis dust storm passed during this period (as treated below), and the markings look almost fixed, we shall describe the surface markings in some details, but cannot cover all the contributed observations because space is limited. During the period the central latitude ran from $\phi=1^\circ\text{N}$ to $\phi=6^\circ\text{N}$, and the phase angle decreased from $i=44^\circ$ to $i=40^\circ$. The planet attained the western quadrature on 17 Sept, and so it is now possible to observe it for a quarter of day. The apparent declination D recorded $D=23^\circ\text{N}$ on 22 Sept.

♂.....今回は16 September ($\lambda=315^\circ\text{Ls}$)から15 October ($\lambda=331^\circ\text{Ls}$) 迄の一ヶ月を扱うが、大黃雲も大局的には収まり(以下で半減期の推定も述べる)、視直径 δ も10秒近くになったので(16Septには $\delta=8.8''$ 、15Octには $\delta=10.7''$)、模様もホボ固定されたことから今までよりは詳しく拾う。但し紙数の関係で網羅は出来ない。中央緯度 ϕ は 1°N から 6°N に昇った。位相角は $i=44^\circ$ から 40° に落ちてきた。17Septに西矩となったので夜半から観測が可能である。視赤緯 D は20Septに $D=23^\circ\text{N}$ を越えた。

♂..... The observations we received with thanks are as follows. In #335, 31 observers contributed, and in #336, 37 observers did, while this time a total of 43 observers sent us their observations.

今回の報告は次の様である。#335では31名、#336では37名の寄與であったが、今回は43名となった。

ADELAAR, Jan ヤン・アデラール (JAd) 尼德蘭 Arnhem, Nederland

3 Sets of RGB + 2 RGB CCD Images (16, 23 September; 7, 15 October 2007)

$f/42, 45, 50 \times 23\text{cm}$ SCT with a DMK21AF

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

8 Sets of RGB CCD + 1 Colour + 1 R + 1 B + 9 IR Images (3, 6, 8, 10*, 12, 13 October 2007)

$f/33, 35 \times 36\text{cm}$ SCT with a DMK21AF04/ToUcam II*

ALLEN, Ethan T イーサン・アッレン (EAl) 加利福尼亚 Sebastopol, CA, USA

3 Sets of RGB + 1 R + 1 IR + 1 UV CCD Images (25, 26 September; 7, 14 October 2007)

$f/36 \times 30\text{cm}$ speculum with a SKYnyx 2-0M

ANDERSON, David デヴィッド・アンダーソン (DAd) 南卡罗莱纳 nr Greenwood, SC, USA

5 Colour + 3 R + 2 IR + 1 UV CCD Images (25, 27 September; 8, 14, 15 October 2007)

$f/38 \sim 55 \times 33\text{cm}$ spec with a ToUcam 740

ARDITTI, David デイヴィッド・アーディッチ (DAr) 英國 Stag Lane, Edgware, UK

8 Sets + 3 B + 6 IR CCD Images (16, 25, 26, 30 September; 11 October 2007)

36cm SCT with a SKYnyx 2-0

BATES, Donald R ドン・ベーツ (DBt) 德克萨斯·休斯敦 Houston, TX, USA

3 Colour CCD Images (16, 29 September; 12 October 2007) $f/35 \times 25\text{cm}$ spec with a ToUcam Pro

- BIVER, Nicolas ニコラ・ビヴェール (NBv)** 凡爾賽 Versailles, Yvelines, France
3 Colour Drawings and 1 Colour CCD Image (22, 30* September 2007)
700×41cm speculum / 41cm Dobsonian with a Canon Powershot A710IS*
- BOSMAN, Richard リシャルト・ボズマン (RBs)** 尼德蘭 Enschede, Nederland
3 Sets of RGB + 1 Colour + 1 B CCD Images (19, 23 September; 6, 13 October 2007)
f/50×28cm SCT with an ATK-2HS
- CASQUINHA, Paulo パウロ・カスキニャ (PCq)** 葡萄牙 , República Portuguesa
10 Sets of RGB + 1 R + 14 IR CCD Images (24, 26, ~28 September; 3, 5, 6, 11, 12 October 2007)
f/33×36cm SCT with a SKYnyx 2-0M
- DELCROIX, Marc マルク・デルクロア (MDc)** 法國 Tournefeuille, France
1 Set of RGB + 1 IR CCD Images (29 September 2007) f/55×25cm SCT with SKYnyx 2-0M
- DICKINSON, William H ビル・ディキンソン (WDc)** 維吉尼亞 Glen Allen, VA, USA
3 Sets of RGB Images (23, 25, 30 September 2007) 20cm SCT with a DMK21AF04 AS
- DUPONT, Xavier グザヴィエ・デュボン (XDp)** 法國 Saint Roch, France
5 Colour + 2 IR + 2 Violet CCD Images (29 September; 7, 14 October 2007)
f/35, 50, 53×18cm spec with a ToUcam
- FERNÁNDEZ GÓMEZ, Francisco José**
フランシスコ ホセ・フェルナンデス ゴメス (FFn) Ourense, España
1 Colour CCD Image (14 October 2007) 20cm SCT with a Meade LPI
- FLANAGAN, William D ビル・フラナガン (WFl)** 德克薩斯・休斯敦 Houston, TX, USA
24 Sets of RGB CCD Images (17, 18, 21, 22, 28, 29 September; 3, ~5 October 2007)
f/36×36cm SCT with a Lu075M
- GERSTHEIMER, Ralf ラルフ・ゲルシュトハイマー (RGh)** 德國 Habichitswald, Deutschland
8 Colour + 1 R + 2 IR CCD Images (16, 17, 23, 25 September; 5, 11 October 2007)
f/34, 42×32cm speculum with a DMK21AF04/ ToUcam Pro 740
- GHOMIZADEH, Sadegh サデグ・ゴミザデ (SGh)** 伊朗・德黑蘭 Tehran, Iran
11 Colour CCD Images (16, ~20, 23, 26, ~28 September; 2, 3 October 2007)
f/37×28cm SCT with a ToUcam Pro III
- GORCZYNSKY, Peter ピート・ゴルチンスキー (PGc)** 康涅狄格 Oxford, CT, USA
16 Colour + 7 B+ 13 IR CCD Images (16, ~21, 25, 26, 30 September; 13, 14 October 2007)
f/42×18cm Maksutov-Cassgrain with a ToUcam
- GRAFTON, Edward A エド・グラフトン (EGf)** 德克薩斯・休斯敦 Houston, TX, USA
20 Sets of RGB + 4 Colour CCD Images
(17, 21, 22, 24, 27 September; 1, 3, ~4, 9, 11, ~13 October 2007) f/39×36cm SCT with an ST402
- HEFFNER, Robert ロバート・ヘフナー (RHf)** 名古屋 Nagoya, Aichi, Japan
1 Colour CCD Image (21 September 2007) 28cm SCT with a DMK21AF04
- HIDALGO-TORTOSA, Emilio エミリオ・イダルゴ (EHd)** 西班牙 La Carolina, Jaén, España
5 Colour + 3 IR CCD Images (25 September; 2, 5, 6* October 2007)
16cm refractor, f/50×30cm Dall-Kirkham*, ToUcam
- KIDD, Simon D サイモン・キッド (SKd)** 英國 Welwyn, Herts, UK
2 Colour CCD Images (12 September; 5 October 2007) 36cm SCT with with a DBK21AF04 AS
- KINGSLEY, Bruce A ブルース・キングスレイ (BKn)** 英國 Maidenhead, UK
2 Sets of RGB + 5 Colour CCD Images (16, 30 September; 5 October 2007)
f/40×28cm SCT with a SKYnix2-0
- KOWOLLIK, Silvia シルヴィア・コヴォツリク (SKw)** 德國 Ludwigsburg, Deutschland
1 Colour CCD Image (14 October 2007) f/40×20cm spec with a ToUcam 740

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

10 Colour CCD Images (18, 20, 22, 25, 27 September; 6, 15 October 2007)
f/80, 85⊗20cm Dall-Kirkham with a DMK21AF04/Toucam pro

LAWRENCE, Pete ピート・ローレンス (PLw) 英國 Selsey, WS, UK

5 Sets of RGB + 1 Colour CCD Images (25 September; 4,~7, 11 October 2007)
f/55, 67⊗36cm SCT with a SKYnix2-0M

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

4 Sets of RGB + 14 Colour + 8 IR CCD Images (25, ~27, 30 September; 8, 13, 14 October 2007)
f/40⊗23cm SCT (⊗Tele Vue 5× Powermate, 3×Barlow) with a DBK21AF04 & DMK21BF04

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

6 Sets of Drawings (16*, 21*, 22, 30 September; 5/6, 13/14* October 2007)
225, 250, 270×20cm Cass, 200, 250, 270×15cm refractor*

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

1 Colour CCD Image (14 October 2007) 25cm SCT with a ToUcam pro II

MELKA, James T ジム・メルカ (JMI) 密蘇里・聖路易斯 St. Louis, MO, USA

3 Sets of RGB + 1 Colour + 1 R CCD Images (18, 21, 28 September; 2 October 2007)
30cm speculum with a ToUcam 840

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

37 Drawings (18, 19, 25, 26 September; 6 October 2007) 400, 600×20cm 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

5 Sets of RGB + 5 IR CCD Images (6, 11 October 2007) 25cm spec with a Lu075M

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

8 Drawings (21 September; 6 October 2007) 320×20cm F/8 speculum

NAKAJIMA, Takashi 中島 孝 (Nj) 福井 Fukui, Fukui, Japan

18 Drawings (22 September; 6, 10, 15 October 2007) 400, 600×20cm ED refr*
*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

4 Sets of RGB + 1 IR CCD Images (22, 27 September; 3, 12 October 2007)
f/47⊗41cm F/6 spec with a SKYnyx 2-0M

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

17 Sets of RGB + 1 R CCD Images (16, 18, 22, 26, 30 September; 5, 7 October 2007)
f/40⊗36cm SCT with a SKYnyx 2-0M

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

1 Set of RGB + 1 IR CCD Images (23 September 2007) f/52⊗25cm Cassegrain with SKYnyx 2-0M

ROSOLINA, Michael マイケル・ロゾリーナ (MRs) 西維吉尼亞 Friars, WV, USA

2 Colour Drawings (30 September; 7 October 2007) 340×, 400×, 500×20cm F10 SCT

SÁNCHEZ, Jesús R ヘスス・サンチェス (JSc) 西班牙・科爾多瓦 Córdoba, España

1 Colour CCD Image (5 October 2007) f/40⊗25cm SCT with a DMK21AF04

SHARP, Ian イアン・シャープ (ISp) 英國 Ham, West Sussex, UK

4 Colour CCD Images (5,~7, 11 October 2007) f/55⊗28cm SCT with a SKYnyx 2-0M

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

4 Sets of RGB + 4 B + 6 Colour Images (16, 18, 30 September; 5, 7, 11 October 2007)
f/48, 50⊗36cm SCT with a SKYnyx 2-0

VANDEBERGH, Ralf ラルフ・ファンデルベルフ (RVb) 尼德蘭 Nederland

7 Sets of R_sGB/IR_sGB + 1 R + 5 IR Images (16, 17, 24, 25, 30 September; 5, 7, 8, 14* October 2007)
f/24, 30*⊗25cm spec with ATIK-1HSfp

WALKER, Sean ショーン・ウォーカー (SWk) 新罕布夏 Chester, NH, USA

3 Sets of RGB + 2 Colour + 2 IR CCD Images (18, 19, 25, 30 September; 5 October 2007)
f/51@32cm speculum with a DMK21AF04

WARREN, Joel ジョエル・ウォーレン (JWn) 徳克薩斯 Amarillo, TX, USA

12 Sets of RGB CCD Images (26, 28 September; 3, 4, 9,~11 October 2007)
20cm SCT (⊗ 2× Barlow) with a DBK21AF04

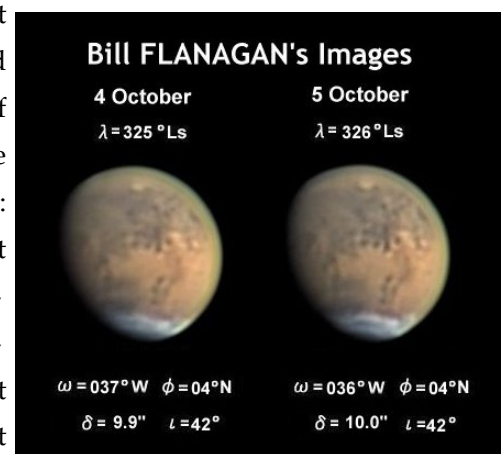
° Noachis Dust Storm V : As we already noted in #335, the Martian deserts began to show the iron oxide reddish colour (to our standardised 20cm refractor at Fukui) in mid-August around at $\lambda=295^\circ\text{Ls}$, and so we were suggested that the suspended dust had begun to subside. Here we further put forward our conclusion that the dust storm has passed its half-life period at the end of September at around $\lambda=320^\circ\text{Ls}$ on the following bases: First, when one of us (*Mn*) observed on 25 Sept ($\lambda=320^\circ\text{Ls}$) and 26 Sept ($\lambda=320^\circ\text{Ls}$) from $\omega=194^\circ\text{W}$, 204°W , 214°W , 224°W , 233°W , 243°W , 253°W to 262°W , and from $\omega=185^\circ\text{W}$, 194°W , 204°W , 214°W , 224°W , 233°W , 243°W to 253°W respectively, he paid much attention to the appearance of Syrtis Mj from the morning limb at $\omega=214^\circ\text{W}$, 224°W , and on 26 Sept he was finally able to detect its appearance. From his long experiences by the use of the 20cm refractor, it usually appears from $\omega=212^\circ\text{W}$ to 214°W (depending however further on ϕ), though when the morning mist is thick its finding has been a bit delayed. On 25 Sept he could not however detect it at $\omega=214^\circ\text{W}$, though the evening desert looked reddish, and he waited until $\omega=233^\circ\text{W}$ to see the slim Syrtis Mj. This kind of matter depends on the seeing condition, but since it looked that the spr was covered by a whitish matter, he thought a presence of morning mist hindered despite $\iota=43^\circ$. The seeing on 26 Sept was not so decent, but fortunately a tip of Syrtis Mj came to be caught at $\omega=214^\circ\text{W}$, and it was quite clearly seen at $\omega=224^\circ\text{W}$. The time $\omega=214^\circ\text{W}$ however implies grossly since *Mn* spends 20 minutes for one session, and so it must have been at $\omega=216^\circ\text{W}$ or less, but from our statistical manipulation, we say it was $\omega=214^\circ\text{W}$. At any rate, if it was not checked we cannot say either, but if it was once detected as usually, we should admit that the global airborne dust has quite decreased to the extent that the delicate appearance at the limb of the tip of Syrtis Mj was detected. The morning mist must have already been present, but we should say on the day we must have been able to take advantage of the less mist distribution along the limb since the first three hours were still away at the rear side since $\iota=43^\circ$. Second, as shown below by the observations by D PEACH (*DPc*) and W FLANAGAN (*WFl*), we can prove that the altitude of the suspended dust has been quite lowered at around $\lambda=320^\circ\text{Ls}$: That is, at the beginning of this period ($\lambda=315^\circ\text{Ls}$), the three Tharsis Montes looked separated as three, but at around $\lambda=320^\circ\text{Ls}$, the shadow of Ascraeus Mons began to look elongated, and finally the separated Montes became to look as a liaison of the Tharsis ridge segment. This must be because the lower shadow of the flank or foot of the ridge has become seen (through the thinner dust if there still floats the airborne dust). Third, as is also suggested below, the trend of Valhalla implies that the lower series of shadows became more apparent at around $\lambda=320^\circ\text{Ls}$, which however will gradually vanish as the phase angle ι becomes smaller. Fourth, the dark marking at around Meridiani S and Margaritifer S has now quite recovered after $\lambda=320^\circ\text{Ls}$, though the area is still faint because of the fallout or sediment of dust. The half-life does not imply the complete clearing of the dust, but still a further exponential decrease of dust is expected in the near future. Furthermore it should be remembered the removal of the fallout dust is another story.

To compare our case with the 1971b case, we may refer to the article of W K HARTMANN and M J PRICE, Mars: Clearing of the 1971 Dust Storm, *Icarus* **21** (1974) 28. The 1971b Noachis dust storm started on 22 September 1971 ($\lambda=260^\circ\text{Ls}$), and this article says the half-life period came around on 22 December

1971 ($\lambda=315^\circ\text{Ls}$). However they needed to wait for the part which was most obscured to be cleaned until 20 January 1972 ($\lambda=331^\circ\text{Ls}$), and a fuzziness of the ground detail continued up until 12 February 1972 ($\lambda=343^\circ\text{Ls}$). They depended on a total of one thousand photographs taken by Mariner 9 by the use of orange and integrated light filters. Shotaro MIYAMOTO observed visually at the Kwasan Observatory up until May 1972 (when $\delta=4.0''$: on the occasion of the apparition he secures a total of 561 drawings), and checked that the dust came to cease at the end of December 1971. The article of A DOLLFUS, S EBISAWA & E BOWELL, Polarimetric analysis of the Martian dust storms and clouds in 1971, *Astronomy and Astrophysics*, **131** (1984) 123 reports that a bit of clearing occurred at the end of November ($\lambda=300^\circ\text{Ls}$) to the effect that Syrtis Mj was visible. However, the polarimetric observation implied to them that it was at the beginning of March 1972 (around $\lambda=350^\circ\text{Ls}$) that the atmosphere became completely clear. Thus we may say the present dust must be on a similar trail of the 1971b dust storm (our case started on $\lambda=265^\circ\text{Ls}$). (This part I° was written by *Mn*.)

We next rather concretely review the urface aspects seen during the present period along the Schiaparelli westward angles.

I° General Review : a) The Area from Meridiani S to Margaritifer S, further to M Acidalium: The area of Meridiani S and Margaritifer S has been a most interesting area since it was soon obscured when the dust storm was onset, and long remained faint perhaps because of the fallout of dust (it is impossible any local dust remains to stay at the same area for a long time). Visually MAKSYMOWICZ (*SMc*) detected the right nail of Aryn on 21/22 Sept ($\lambda=318^\circ\text{Ls}$) at $\omega=357^\circ\text{W}$, but still the area looked separated from S Sabæus. PELLIER (*CPl*) took nice images on 23 Sept ($\lambda=319^\circ\text{Ls}$, $\phi=2^\circ\text{N}$) at $\omega=027^\circ\text{W}$ which showed the area as well as M Acidalium invaded by the nph. Even then the following area of Auroræ S and its south was much darker. The images by PEACH (*DPc*) on 26 Sept ($\lambda=320^\circ\text{Ls}$) at $\omega=022^\circ\text{W}/025^\circ\text{W}$ showed this area quite clearly showing the Brangæna and Indus canals, and the separated Niliacus L from M Acidalium whose north was covered by the nph. CASQUINHA (*PCq*) also showed on 28 Sept ($\lambda=322^\circ\text{Ls}$) at $\omega=014^\circ\text{W} \sim 026^\circ\text{W}$ that the area was quite dark (in IR) though the following area of Auroræ S and its south was much darker than the preceding area. On the images of DUPONT (*XDp*) on 29 Sept ($\lambda=322^\circ\text{Ls}$) at $\omega=334^\circ\text{W}$, 352°W , S Meridiani was still weaker than S Sabæus. On the same day DELCROIX (*MDc*) detected the two nails of Aryn at $\omega=355^\circ\text{W}$, 000°W in R and IR. On 30 Sept ($\lambda=323^\circ\text{Ls}$), KINGSLEY (*BKn*) also showed the two nails at $\omega=330^\circ\text{W}$, and on the same day *DPc* produced an excellent series of images of the area at $\omega=\dots$, 348°W , 357°W and at $\omega=008^\circ\text{W}$ where the north end of the npr looks shadowy. See also TYLER (*DTy*)'s images at $\omega=340^\circ\text{W}(343^\circ\text{W})$, $345^\circ\text{W}(348^\circ\text{W})$, $354^\circ\text{W}(357^\circ\text{W})$, $000^\circ\text{W}(002^\circ\text{W})$ on the day. ARDITTI (*DAr*) also took several images on the day at $\omega=340^\circ\text{W}$, $(343^\circ\text{W})344^\circ\text{W}(346^\circ\text{W})$, 352°W : The nph on the B images is excellent. WALKER (*SWk*) described the faint area as such on 5 Oct ($\lambda=326^\circ\text{Ls}$) at $\omega=341^\circ\text{W}$. *SWk*'s nph is good in the RGB synthesis. GRAFTON (*EGf*) produced the images of the faint area to be slightly darker than *SWk*'s at the same angle ($\omega=341^\circ\text{W}$) on 12 Oct ($\lambda=329^\circ\text{Ls}$). **b) Auroræ S and its South:** GHOMIZADEH (*SGh*) took the area of Auroræ S on 17 Sept ($\lambda=315^\circ\text{Ls}$) at $\omega=051^\circ\text{W}$, but afterward FLANAGAN (*WFl*) produced a superb set of images around here on 3, 4, 5 Oct: The images on 3 Oct ($\lambda=325^\circ\text{Ls}$) were shot at $\omega=044^\circ\text{W}$, 050°W , on 4 Oct ($\lambda=325^\circ\text{Ls}$) at $\omega=032^\circ\text{W}$, 037°W , 042°W , and on 5 Oct ($\lambda=326^\circ\text{Ls}$) at $\omega=021^\circ\text{W}$, 026°W , 031°W , 036°W . Especially those on 5 Oct show the disks very detailed: The area a-



round Auroræ S was resolved to several dark spots, and the area of Niliacus L and Nilokeras was shown in greater detail. Don PARKER (*DPk*) and *EGf* also obtained excellent images: *DPk* produced the images on 3 Oct ($\lambda=325^\circ\text{Ls}$) at $\omega=045^\circ\text{W}$, and *EGf* on 3 Oct ($\lambda=325^\circ\text{Ls}$) at $\omega=062^\circ\text{W}$, on 4 Oct ($\lambda=325^\circ\text{Ls}$) at $\omega=056^\circ\text{W}$. ALLEN (*EAl*) also took a set of images at $\omega=041^\circ\text{W}$ on 7 Oct ($\lambda=327^\circ\text{Ls}$). This is common to the above images, but *EAl*'s shows Ganges was dark and broad since ι is large. Similar thing is said about the images by LOMELI (*ELm*) on 8 Oct ($\lambda=327^\circ\text{Ls}$) at $\omega=041^\circ\text{W} \sim 049^\circ\text{W}$, and by KUMAMORI (*Km*) on 15 Oct ($\lambda=331^\circ\text{Ls}$) at $\omega=049^\circ\text{W}$, 056°W .

c) The Area of Solis L: Soils L has been deformed, and the area to the south of Agathodæmon looks shadowy. Phasis is dark perhaps because of the shadow of the cliff. The morning Solis L (especially at $\omega=051^\circ\text{W}$) was shot by *DPc* on 22 Sept ($\lambda=318^\circ\text{Ls}$), and on 23 Sept ($\lambda=319^\circ\text{Ls}$) by *DAr* and by GERSTHEIMER (*R Gh*). On 2 Sept BOSMAN (*RBs*) took at $\omega=063^\circ\text{W}$ where Phasis came out from the limb. *PCq* also produced R images on 24 Sept ($\lambda=319^\circ\text{Ls}$) at $\omega=056^\circ\text{W} \sim 070^\circ\text{W}$. The shadowy Thaumasia on the image of LAWRENCE (*PLw*) on 25 Sept ($\lambda=320^\circ\text{Ls}$) at $\omega=042^\circ\text{W}$ is interesting. See also *DAr*'s on the same day at $\omega=065^\circ\text{W}$, and *R Gh*'s at the same angle. A few hours later, in the US, *SWk* took the Solis L area near the CM (at $\omega=087^\circ\text{W}/089^\circ\text{W}$). The images where Solis L lies near the CM were also produced by *DPk* on 27 Sept ($\lambda=321^\circ\text{Ls}$) at $\omega=085^\circ\text{W}$, by *WFl* on 28 Sept ($\lambda=321^\circ\text{Ls}$) at $\omega=093^\circ\text{W}$, 098°W , 103°W , and on 29 Sept ($\lambda=322^\circ\text{Ls}$) at $\omega=082^\circ\text{W}$, 087°W , 092°W , as well by *EGf* on 1 Oct ($\lambda=323^\circ\text{Ls}$) at $\omega=076^\circ\text{W}$. Among them the images by *WFl* on 28 Sept show Poirot's mustache-like curved delicate marking near Phoenicis L which runs up to the following area of Phasis. AKUTSU (*Ak*) also took a set of images at $\omega=092^\circ\text{W}$ on 13 Oct ($\lambda=330^\circ\text{Ls}$).

d) Tharsis Montes: On *DPc*'s images on 16 Sept ($\lambda=315^\circ\text{Ls}$) at $\omega=116^\circ\text{W} \sim 138^\circ\text{W}$, the three summits of Tharsis Montes are recognised as separated. This was also so on *DAr*'s images on the same day at $\omega=126^\circ\text{W}$. *DTy*'s images on 18 Sept ($\lambda=316^\circ\text{Ls}$) at $\omega=103^\circ\text{W}$ look also to show the three (on these images the dark spot of Olympus Mons proves to show the shadow at the flank). However on the *PCq*'s images on 24 Sept ($\lambda=319^\circ\text{Ls}$) at $\omega=056^\circ\text{W} \sim 070^\circ\text{W}$, it is now slightly difficult to discern the three (36cmSCT). Similarly even on the excellent images of *DPk* on 27 Sept ($\lambda=321^\circ\text{Ls}$) at $\omega=085^\circ\text{W}$, we should say the three summits cannot be clearly separated (but on *EGf*'s images on the same day at $\omega=116^\circ\text{W}$, they look separated). The images made by *WFl* on 28 Sept ($\lambda=321^\circ\text{Ls}$) at $\omega=093^\circ\text{W}$, 098°W , 103°W definitely show that it is not only hard to discriminate the three, but also the shadow of Ascræus Mons is no more roundish but made slenderised. This is well identical to the topography of Ascræus Mons. Note this occurred at around $\lambda=320^\circ\text{Ls}$, as suggested in the foregoing part: At the early stage the summits must have been seen dark because they popped out of the thick dust cloud, but as the dust gradually subsided, the preceding flanks of the mountains became to look dark because ι was large, and finally the thinness of the airborne dust made us to see the ground-feet of the mountains as darkened since the ι is still large. See also MELKA (*JMI*)'s images on 28 Sept ($\lambda=321^\circ\text{Ls}$) at $\omega=101^\circ\text{W}$, *EGf*'s on 1 Oct ($\lambda=323^\circ\text{Ls}$) at $\omega=076^\circ\text{W}$, 082°W , *Ak*'s on 10 Oct ($\lambda=329^\circ\text{Ls}$) at $\omega=112^\circ\text{W}$ etc.

e) The Area of Dædalia: There has been seen a shadowy area in Dædalia since 2003, while this year the shadowy area seems to show a fan-like shape and looks delicately connected with M Sirenum. The details will be shown up in the near future, but the following work shows the present status of the area: *DPc*'s images on 15 Sept ($\lambda=314^\circ\text{Ls}$) at $\omega=123^\circ\text{W} \sim 147^\circ\text{W}$, and on 16 Sept ($\lambda=315^\circ\text{Ls}$) at $\omega=116^\circ\text{W} \sim 138^\circ\text{W}$, *DTy*'s on 16 Sept ($\lambda=315^\circ\text{Ls}$) at $\omega=114^\circ\text{W}$, ANDERSON (*DAd*)'s on 27 Sept ($\lambda=321^\circ\text{Ls}$) at $\omega=105^\circ\text{W}$, *EGf*'s on the same day at $\omega=116^\circ\text{W}$, *JMI*'s on 28 Sept ($\lambda=321^\circ\text{Ls}$) at $\omega=101^\circ\text{W}$, and *Ak*'s on 10 Oct ($\lambda=329^\circ\text{Ls}$) at $\omega=112^\circ\text{W}$.

f) M Sirenum: An exquisite image of M Sirenum is found in *WFl*'s images on 22 Sept ($\lambda=318^\circ\text{Ls}$) at $\omega=148^\circ\text{W}$, 152°W , 157°W , 162°W . Otherwise see *BKn*'s on 16 Sept ($\lambda=315^\circ\text{Ls}$) at $\omega=131^\circ\text{W}$, *R Gh*'s on 17 Sept ($\lambda=315^\circ\text{Ls}$) at $\omega=137^\circ\text{W}$, *SWk*'s on 19 Sept ($\lambda=316^\circ\text{Ls}$) at $\omega=148^\circ\text{W}$, *EGf*'s on 22 Sept ($\lambda=318^\circ\text{Ls}$) at $\omega=159^\circ\text{W}$.

The area from M Sirenum to M Cimmerium was shot in *WFl*'s images on 21 Sept ($\lambda=318^\circ\text{Ls}$) at $\omega=162^\circ\text{W}$, 166°W , 171°W , 173°W . **g) M Cimmerium and a New Canal:** The whole M Cimmerium is shown on the images of *WFl* taken on 17 Sept ($\lambda=315^\circ\text{Ls}$) at $\omega=203^\circ\text{W}$, 208°W , 214°W (still beneath the thin airborne dust). At $\omega=203^\circ\text{W}$ it shows a canal made of several dots which runs up from the east side of the *Ætheria* dark patch to the west end of M Cimmerium (already pointed out by *DPc*: see his LtE on 6 Sept in CMO #336). See also *WFl*'s images on 18 Sept ($\lambda=316^\circ\text{Ls}$) at $\omega=189^\circ\text{W}$, 194°W , 200°W , 203°W . Note that both include the image at $\omega=203^\circ\text{W}$. This new canal was visually checked by *Mn* on 25 Sept ($\lambda=320^\circ\text{Ls}$) at $\omega=224^\circ\text{W}$, 233°W , and *Km* showed it on his image on 27 Sept ($\lambda=321^\circ\text{Ls}$) at $\omega=239^\circ\text{W}$. See also several images on 11 Oct ($\lambda=329^\circ\text{Ls}$): *DTy*'s at $\omega=213^\circ\text{W}$, *RGh*'s at $\omega=226^\circ\text{W}$, 230°W , *DAR*'s at $\omega=234^\circ\text{W}$, 247°W , and *SHARP (ISp)*'s at $\omega=240^\circ\text{W}$. *PCq* also showed it on 12 Oct ($\lambda=329^\circ\text{Ls}$) at $\omega=230^\circ\text{W}$. **h) Valhalla:** This is not the dark marking, but made of ground shadows of the complex topography when the phase angle ι is large. Already it was seen on *DPc*'s images on 8 Sept ($\lambda=310^\circ\text{Ls}$) and so on under the suspended dust, and this time also ι is still so large that on 18 Sept ($\lambda=316^\circ\text{Ls}$) *SWk*'s images at $\omega=174^\circ\text{W}$ and on 21 Sept ($\lambda=318^\circ\text{Ls}$) *WFl*'s at $\omega=162^\circ\text{W}$, 166°W , 171°W , 173°W and *JMI*'s at $\omega=161^\circ\text{W}\sim 164^\circ\text{W}$ show Valhalla. However we see those images on 22 Sept ($\lambda=318^\circ\text{Ls}$) by *WFl* at $\omega=148^\circ\text{W}$, 152°W , 157°W , 162°W , and by *EGf* at $\omega=159^\circ\text{W}$ show the clearer and darker Valhalla because of the subsidence of thicker dust. **i) Elysium:** The dark segment inside Elysium described by *DPc* on 8 Sept ($\lambda=310^\circ\text{Ls}$) at $\omega=191^\circ\text{W}\sim 202^\circ\text{W}$ and so on was also detected by *WFl* on 21 Sept ($\lambda=318^\circ\text{Ls}$) at $\omega=162^\circ\text{W}$, 166°W , 171°W , 173°W . *EGf*'s images at $\omega=176^\circ\text{W}$ on the day does not seem to show it well, but this L describes well the area around Phlegra. Note also an interesting description on B of *EAL*'s images on 25 Sept ($\lambda=320^\circ\text{Ls}$) at $\omega=181^\circ\text{W}$: The whole disk looks to be covered by a thin water mist, but the area to the north of Elysium is governed by the descending air and darker in B adjacent to the *nph*. The *nph* is thick but to the north of the area it looks weaker (see also *m*) below). **j) Trinacria and M Tyrrhenum:** M Tyrrhenum has not been well recovered. At the same time, Trinacria looks different from the aspect seen in 2003/2005, while akin to the aspect in 1986/1988. See for instance the images on 11 Oct ($\lambda=329^\circ\text{Ls}$) by *DAR* (at $\omega=234^\circ\text{W}$), by *ISp* (at $\omega=240^\circ\text{W}$), by *PLw* (at $\omega=244^\circ\text{W}$), *PCq* (at $\omega=245^\circ\text{W}$), and *RGh* (at $\omega=258^\circ\text{W}$). **k) Syrtis Mj and Hellas:** Any strong processing in IR destroys the true shape of Syrtis Mj: In this sense, the image of HEFFNER (*RHf*) on 21 Sept ($\lambda=318^\circ\text{Ls}$) at $\omega=276^\circ\text{W}$ shows well the width of Syrtis Mj. S Sabæus is dark enough. The Huygens crater is caught as well as the following isolated dark spot in *Æria* (to the north of the eastern part of S Sabæus), which is known since 2003. It also shows a modest description of Hellas. As a morning Syrtis Mj, we just pick out the case of *ISp* produced on 11 Oct ($\lambda=329^\circ\text{Ls}$) at $\omega=240^\circ\text{W}$. As to Hellas, *Mn* observed that the terminator side preceding Hellas looked covered by a whitish haze on 18 Sept ($\lambda=317^\circ\text{Ls}$) and 19 Sept ($\lambda=317^\circ\text{Ls}$). *Km* chased Hellas from 20 Sept. Inversely, *Km*'s Hellas at $\omega=239^\circ\text{W}$ on 27 Sept ($\lambda=321^\circ\text{Ls}$) was brilliant near the morning limb, it was still bright more inside also at $\omega=249^\circ\text{W}$, 258°W on 25 Sept ($\lambda=320^\circ\text{Ls}$), it was roundish light at $\omega=280^\circ\text{W}/282^\circ\text{W}$ on 22 Sept ($\lambda=318^\circ\text{Ls}$), and finally it was dull and usual in the evening at $\omega=303^\circ\text{W}/306^\circ\text{W}$ on 20 Sept ($\lambda=317^\circ\text{Ls}$). On the other hand, *BKn* chased Hellas on 5 Oct ($\lambda=325^\circ\text{Ls}$) from $\omega=264^\circ\text{W}$, 271°W , 275°W , 289°W , to 296°W (taking 2 hrs 10 mins): the Hellas basin was bright (due to the reflection) but gradually it became duller. The covering higher airborne dust must have shined by the back-lighting at the morning side. On the evening of the day, HIDALGO-TORTOSA (*EHD*) took at $\omega=307^\circ\text{W}$, KIDD (*SKd*) at $\omega=330^\circ\text{W}$, and *SWk* at $\omega=341^\circ\text{W}$: *SWk*'s images are important because the terminator shows a bit a presence of the water vapour. *PCq* also chased on 6 Oct ($\lambda=326^\circ\text{Ls}$) at $\omega=268^\circ\text{W}$, 293°W , 304°W . The B at $\omega=306^\circ\text{W}$ shows a roundish Hellas: not known because of the water vapour or the reflection of the white light. *DPc* took a series on 7 Oct ($\lambda=327^\circ\text{Ls}$) at $\omega=260^\circ\text{W}$, 280°W , 289°W which

may show a structure inside. *DPk*'s images on 12 Oct ($\lambda=329^\circ\text{Ls}$) at $\omega=306^\circ\text{W}$ seems to show a usual fine structure. As to the aspect of Hellas at this season, refer to an article in CMO #311 (25 October 2005 issue) - in CMO-Web it is recorded at http://homepage2.nifty.com/~cmomn2/2005Coming_14.htm **l) The Area of M Serpent and S Sabæus:** The trend of this area should always be worthy of notice: M Serpentis is still dark and wide, and the dark band which runs inside Noachis (just like in 1928) is also noticeable. *Km*'s images on 18 Sept ($\lambda=316^\circ\text{Ls}$) at $\omega=326^\circ\text{W}/329^\circ\text{W}$ (S Meridiani is still weak) and on 20 Sept ($\lambda=317^\circ\text{Ls}$) at $\omega=303^\circ\text{W}/306^\circ\text{W}$ show the area. *SGh* took on 26 Sept ($\lambda=320^\circ\text{Ls}$) at $\omega=327^\circ\text{W}$, and on 28 Sept ($\lambda=321^\circ\text{Ls}$) at $\omega=307^\circ\text{W}$. On 30 Sept ($\lambda=323^\circ\text{Ls}$), *BKn* showed a set of images at $\omega=330^\circ\text{W}$ where the eastern part of Deucalionis R is as dark as S Sabæus. Succeedingly on the day *DPc* produced a sequence of excellent images at $\omega=336^\circ\text{W}$, 340°W , 348°W , \dots . *PCq* took IR images on 3 Oct ($\lambda=324^\circ\text{Ls}$) at $\omega=299^\circ\text{W}$, and on 5 Oct ($\lambda=325^\circ\text{Ls}$) at $\omega=324^\circ\text{W}$. On 5 Oct, *SKd* took at $\omega=330^\circ\text{W}$. *PLw* produced images as follows: on 4 Oct ($\lambda=325^\circ\text{Ls}$) at $\omega=311^\circ\text{W}$, on 5 Oct ($\lambda=325^\circ\text{Ls}$) at $\omega=292^\circ\text{W}$, on 6 Oct ($\lambda=326^\circ\text{Ls}$) at $\omega=286^\circ\text{W}$, and on 7 Oct ($\lambda=327^\circ\text{Ls}$) at $\omega=291^\circ\text{W}$. The Huygens crater on *PLw*'s image on 5 Oct is lovely. See also *DPk*'s images on 12 Oct ($\lambda=329^\circ\text{Ls}$) at $\omega=306^\circ\text{W}$, and *DAd*'s on 15 Oct ($\lambda=331^\circ\text{Ls}$) at $\omega=300^\circ\text{W}$. **m) The NPH:** Since ϕ is now more up, the north polar hood (nph) is more seen. And the season of the Dawes Slit arrived. In the following we pick out chronologically the noteworthy images: *DPc*'s B images on 16 Sept ($\lambda=315^\circ\text{Ls}$) at $\omega=119^\circ\text{W}$, 128°W , 134°W show already a nuance of the density of the nph. *WFl*'s images on 21 Sept ($\lambda=318^\circ\text{Ls}$) at $\omega=162^\circ\text{W}$, 166°W , 171°W , 173°W prove a dark segment running laterally inside the nph (near Gyndes?). *WFl*'s images on 22 Sept ($\lambda=318^\circ\text{Ls}$) at $\omega=148^\circ\text{W}$, 152°W , 157°W , 162°W are also excellent, and show the same dark segment. The boundary of the npc is so in the midst of Propontis I and Gyndes. *EAl*'s images on 25 Sept ($\lambda=320^\circ\text{Ls}$) at $\omega=181^\circ\text{W}$, as aforementioned, the preceding part of the nph is rather shadowy, but it looks recovered on his images on 26 Sept ($\lambda=321^\circ\text{Ls}$) at $\omega=168^\circ\text{W}$. *DPc*'s images on 26 Sept ($\lambda=320^\circ\text{Ls}$) at $\omega=022^\circ\text{W}/025^\circ\text{W}$ show the nph at the northern part of M Acidalium, but not yet so thick. *DPc*'s images on 30 Sept ($\lambda=323^\circ\text{Ls}$) at $\omega=336^\circ\text{W}(339^\circ\text{W})$, 348°W , 357°W , 008°W show a dark area at the limb seen through the nph. The nph was also shot by *DAR* on the day at $\omega=340^\circ\text{W}$, $343^\circ\text{W}(346^\circ\text{W})$, 352°W but too bluish. On the same day BIVER (*Nbv*) took the nph at $\omega=355^\circ\text{W}$ by a digital camera, and drew a detail inside the nph at $\omega=009^\circ\text{W}$ (40cm Dobsonian). On the day DICKINSON (*WDc*) took the nph to the north of M Acidalium at $\omega=023^\circ\text{W}$, and also *SWk* at $\omega=033^\circ\text{W}$. As previously mentioned, *WFl*'s images on 3, 4, 5 Oct are superb: The images on 5 Oct ($\lambda=326^\circ\text{Ls}$) at $\omega=021^\circ\text{W}$, 026°W , 031°W , 036°W show a dark slit inside the nph which is as if moved from the Dawes Slit. See also *SWk*'s on the day at $\omega=341^\circ\text{W}$ which show the eastern side. On 9 Oct ($\lambda=328^\circ\text{Ls}$) at $\omega=009^\circ\text{W}$, *EGf* hit the Dawes Slit. WARREN (*JWn*) took on the day at $\omega=338^\circ\text{W}$, about 2 hrs earlier, and showed a dark spot inside the nph. See also his on 11 Oct ($\lambda=329^\circ\text{Ls}$) at $\omega=336^\circ\text{W}$. *ELm*'s images on 13 Oct ($\lambda=330^\circ\text{Ls}$) at $\omega=352^\circ\text{W}$, 356°W , (358°W), 000°W also show the Dawes Slit. His following images on 14 Oct ($\lambda=331^\circ\text{Ls}$) at $\omega=341^\circ\text{W}\sim 355^\circ\text{W}$ show a dark spot inside the nph. On 14 Oct ($\lambda=331^\circ\text{Ls}$) at $\omega=341^\circ\text{W}$, *EAl* took an R image and could not afford to take B because of the approaching Californian fog, but the R image shows up the Dawes slit. This must be because the nph is so thick that the R cannot penetrate. On the other hand, in Europe, *DAR* produced excellent B images with the nph on 11 Oct ($\lambda=325^\circ\text{Ls}$) at $\omega=234^\circ\text{W}$, 247°W which show a structure of the nph. On 14 Oct ($\lambda=330^\circ\text{Ls}$) KOWOLLIK (*SKw*) took her first image this season at $\omega=220^\circ\text{W}$ in which the nph looks split into two.

♂.....!° ノアキス黄雲V: 既に八月の半ば $\lambda=295^\circ\text{Ls}$ ぐらいで砂漠の酸化鐵の色合いが見えていることから(これは比較の問題であって、筆者達は福井の20cm屈折を基準にしている)、黄雲も鎮静化に向かったことは#335で指摘したが、今回は $\lambda=320^\circ\text{Ls}$ 邊りを以て今度の大黄雲の半減期に達したと結論づ

けようと思う。その根拠を列記すると、先ず筆者の一人(Mn)が25Sept($\lambda=320^\circ\text{Ls}$)、26Sept($\lambda=320^\circ\text{Ls}$)にそれぞれ、 $\omega=194^\circ\text{W}$ 、 204°W 、 214°W 、 224°W 、 233°W 、 243°W 、 253°W 、 262°W 、及び $\omega=185^\circ\text{W}$ 、 194°W 、 204°W 、 214°W 、 224°W 、 233°W 、 243°W 、 253°W と連続観測し、特に $\omega=214^\circ\text{W}$ 、 224°W では朝のリムからのシュルティス・マイヨルの出現を注視したわけである。Mnの20cm屈折での長い経験では、(ϕ にも依るが)、平時 $\omega=212^\circ\text{W}\sim 214^\circ\text{W}$ 頃にシュルティス・マイヨルの片鱗の姿を見せるわけだが、通常火星の朝霧などによって多少遅れることがある。25Septの $\omega=214^\circ\text{W}$ はシーイングもそれほど悪くなく、夕方の砂漠の赤味など見えていたが、シュルティス・マイヨルは確認できなかった。既に南極地などには白雲が漂っているし、 $l=43^\circ$ にも拘わらず朝霧も出ているような気配で、この日はシュルティス・マイヨルを $\omega=233^\circ\text{W}$ まで待たなければならなかった。然し、26Septには $\omega=214^\circ\text{W}$ で、シュルティス・マイヨルの先端が何度か見え、 $\omega=224^\circ\text{W}$ では明確であった。 $\omega=214^\circ\text{W}$ と言ってもMnの観測時間は廿分掛けるから、 $\omega=216^\circ\text{W}$ まで到っているかも知れないが、統計操作上観測時刻は $\omega=214^\circ\text{W}$ と定める譯である。従って、見えなければどちらとも言えないわけだが、見えた以上、シュルティス・マイヨルの出現がチェック出来るぐらいにこの邊りの浮遊黄塵の量は減っていると考えられたのである。既に朝霧は出ているであろうと思われるが、 l が大きく朝方三時間弱が見えないことが幸いした譯である。第二に、以下でピーチ(DPc)氏やフラナガン(WFI)氏のタルシス三山の観測を示すが、 $\lambda=315^\circ\text{Ls}$ ではタルシス三山は分離しているのに、 $\lambda=320^\circ\text{Ls}$ 邊りでアスクラエウス・モンスが細長くなり、三山も聯結しているようになって来たので、これは浮遊黄塵が薄くなりタルシス山系の下部の蔭が見えて来ていると判断されるのである。第三にヴァルハッラの動向である。これは矢張り地形の蔭によって出来ると思われるが、低地であるにも拘わらず以下に暗示するように $\lambda=320^\circ\text{Ls}$ 頃には可成り好く見えて居ることである。これはこれから l が極小さくなるにつれて、薄くなるはずである。第四に、シヌス・メリディアニからマルガリティフェル・シヌスに掛けての暗色模様が、砂被りを除いて $\lambda=320^\circ\text{Ls}$ 以降可成り回復して見えることである。半減期というのは未だ指數的に降る尻尾を度外視するということであるから、浮遊黄塵の完全な除去を意味するわけではないし、砂被りについては別の話である。

そこで1971年b大黃雲の状況と比較してみると、W K HARTMANN and M J PRICE, Mars: Clearing of the 1971 Dust Storm, *Icarus* 21 (1974) 28によれば、1971年の大黃雲は22Sept($\lambda=260^\circ\text{Ls}$)に始まって、22Dec($\lambda=315^\circ\text{Ls}$)が区切り(半減期)で、Most Obscuredだった部分は20Jan($\lambda=331^\circ\text{Ls}$)まで續き、Ground detailのfuzzyな部分は12Feb($\lambda=343^\circ\text{Ls}$)迄だったようである。この調査はマリナー九号の千枚の写真(主に橙色フィルター)に依って行われたものである。宮本正太郎氏の観測(1972年五月、 $\delta=4.0''$ 迄、この接近561枚の観測)でも十二月後半に落ち着いているとしている。A DOLLFUS, S EBISAWA & E BOWELL, Polarimetric analysis of the Martian dust storms and clouds in 1971, *Astronomy and Astrophysics*, 131 (1984) 123でも、十一月の終わり($\lambda=300^\circ\text{Ls}$)には多少綺麗になりかけていたし、その頃にはシュルティス・マイヨルは見えていたとある。なお、偏光観測で完全に大氣が綺麗になったのは、1972年三月に入ってから($\lambda=350^\circ\text{Ls}$ 邊りか)だったそうである。従って、今回のノアキス大黃雲もホボ同じように推移しているものと思われる。(このI°項は南記。)

扱て、黄雲の衰退によって、模様は可成り安定して来ているから、今回は稍詳しくレビューする。

♂.....II° **一般的な模様の様相**：a)シヌス・メリディアニとマルガリティフェル・シヌス領域、それにマレ・アキダリウム領域：この邊りは、黄雲発生後いち早く淡化したところで、沈静化後も砂被りで弱かった箇所であるから一番に興味がある。眼視のマクシモヴィッチ(SMc)氏の21/22Sept($\lambda=318^\circ\text{Ls}$) $\omega=357^\circ\text{W}$ では右のアリュンの爪が見えているが矢張りシヌス・サバエウスから分離している。23Sept($\lambda=319^\circ\text{Ls}$) $\omega=027^\circ\text{W}$ にはペリエ(CPI)氏がマレ・アキダリウムと共にシヌス・メリディアニとマルガリティフェル・シヌスを描寫、然し未だ後續のアウロラエ・シヌスの邊りの方が遙かに濃い。マレ・アキダリウムの北は北極雲に支配された形。 $\phi=2^\circ\text{N}$ 。26Sept($\lambda=320^\circ\text{Ls}$) $\omega=022^\circ\text{W}/025^\circ\text{W}$ ではピーチ(DPc)氏がブランガエナを描寫、またインダス運河が見え、全體にこの邊りが回復して来ている。

北ではニリアクス・ラクスも明確に分離、マレ・アキダリウムの北は北極雲に侵されている。カスキニャ(PCq)氏が28Sept($\lambda=322^\circ\text{Ls}$) $\omega=014^\circ\text{W}\sim 026^\circ\text{W}$ でこの領域を可成り濃く出しているが、未だアウロラエ・シヌス以南の方が遙かに濃い。デュボン(XDp)氏の29Sept($\lambda=322^\circ\text{Ls}$) $\omega=334^\circ\text{W}$ 、 352°W でもシヌス・メリディアニは未だシヌス・サバエウスより弱いか(同日のデルクロア(MDc)氏の $\omega=355^\circ\text{W}$ 、 000°W のR、IRでは爪が分離)。30Sept($\lambda=323^\circ\text{Ls}$)のキングスレイ(BKn)氏の $\omega=330^\circ\text{W}$ でも爪が出ているが、同日のDPc氏の $\omega=\dots$ 、 348°W 、 357°W 、 008°W は極めて優れて描寫が深い。 $\omega=008^\circ\text{W}$ では北極雲の北邊が薄暗くなっている。同日のタイラー(DTy)氏の $\omega=340^\circ\text{W}$ (343°W)、 345°W (348°W)、 354°W (357°W)、 000°W (002°W)も参照。DTy氏の北極雲の描寫は弱い。アルディッチ(DAr)氏も同日、 $\omega=340^\circ\text{W}$ 、(343°W) 344°W (346°W)、 352°W で撮っていて、Bでの北極雲の描寫がDPc氏に次いで好い。ウォーカー(SWk)氏の5Oct($\lambda=326^\circ\text{Ls}$) $\omega=341^\circ\text{W}$ ではシヌス・メリディアニ周邊は薄く描寫されている。RGBでの北極雲の描寫は好い。グラフトン(EGf)氏と同じ角度12Oct($\lambda=329^\circ\text{Ls}$) $\omega=341^\circ\text{W}$ ではSWk'sの像よりもハッキリしている。

b)アウロラエ・シヌス附近：ゴミザデ(SGh)氏の17Sept($\lambda=315^\circ\text{Ls}$) $\omega=051^\circ\text{W}$ で濃いアウロラエ・シヌス附近は捉えられているが、何よりもフラナガン(WF1)氏の3、4、5Octの像が優れて詳細に富む：3Oct($\lambda=325^\circ\text{Ls}$) $\omega=044^\circ\text{W}$ 、 050°W 、4Oct($\lambda=325^\circ\text{Ls}$) $\omega=032^\circ\text{W}$ 、 037°W 、 042°W 、5Oct($\lambda=326^\circ\text{Ls}$) $\omega=021^\circ\text{W}$ 、 026°W 、 031°W 、 036°W 。特に5Octの像が秀逸である。アウロラエ・シヌス附近は細かな斑點に分離され、ニリアクス・ラクス邊り、ニロケラスも詳しい。北極雲にはドーズのスリットに似た亀裂が見える。同じ時期、パーカー(DPk)氏もEGf氏も良像を残している：DPk氏：3Oct($\lambda=325^\circ\text{Ls}$) $\omega=045^\circ\text{W}$ 、EGf氏：3Oct($\lambda=325^\circ\text{Ls}$) $\omega=062^\circ\text{W}$ 、4Oct($\lambda=325^\circ\text{Ls}$) $\omega=056^\circ\text{W}$ 。他にアッレン(EAI)氏が7Oct($\lambda=327^\circ\text{Ls}$) $\omega=041^\circ\text{W}$ で撮っている。上の畫像にも共通するがガンゲスが太く濃い。位相角 l が大きいからであろう。ロメリ(ELm)氏の8Oct($\lambda=327^\circ\text{Ls}$) $\omega=041^\circ\text{W}\sim 049^\circ\text{W}$ 、熊森(Km)氏の15Oct($\lambda=331^\circ\text{Ls}$) $\omega=049^\circ\text{W}$ 、 056°W でも同様である。

c)ソリス・ラクス：ソリス・ラクスは變形し、アガトダエモンより南は薄暗い。パーシスが濃いがこれは l によって崖の蔭が強くなるのであろう。朝方のソリス・ラクス(特に $\omega=051^\circ\text{W}$)はDPc氏の22Sept($\lambda=318^\circ\text{Ls}$)のR像、23Sept($\lambda=319^\circ\text{Ls}$)のDAr氏の像、同じくゲルストハイマー(RGh)氏の像にある。同日のボスマン(RBs)氏の $\omega=063^\circ\text{W}$ はパシスがリムから出て来ている。他にPCq氏の24Sept($\lambda=319^\circ\text{Ls}$) $\omega=056^\circ\text{W}\sim 070^\circ\text{W}$ 、R系だが好い畫像。ローレンス(PLw)氏の25Sept($\lambda=320^\circ\text{Ls}$) $\omega=042^\circ\text{W}$ のタウマジアの薄暗さも興味深い。同日のDAr氏の $\omega=065^\circ\text{W}$ 、RGh氏の ω =同じ角度も参照。同日には美國に渡ってSWk氏が中央近くで($\omega=087^\circ\text{W}/089^\circ\text{W}$)撮っている。他に中央での像としては、DPk氏の27Sept($\lambda=321^\circ\text{Ls}$) $\omega=085^\circ\text{W}$ 、WF1氏の28Sept($\lambda=321^\circ\text{Ls}$) $\omega=093^\circ\text{W}$ 、 098°W 、 103°W 、29Sept($\lambda=322^\circ\text{Ls}$) $\omega=082^\circ\text{W}$ 、 087°W 、 092°W 、EGf氏の1Oct($\lambda=323^\circ\text{Ls}$) $\omega=076^\circ\text{W}$ などがあるが、特にWF1氏の28Septの像にはポエニキス・ラクスから彎曲してパシスの後方の南に向かうポアロ髭が出ている。こちら側の中央の像としては阿久津(Ak)氏が13Oct($\lambda=330^\circ\text{Ls}$) $\omega=092^\circ\text{W}$ に撮ったものがある。

d)タルシス三山：DPc氏の16Sept($\lambda=315^\circ\text{Ls}$) $\omega=116^\circ\text{W}\sim 138^\circ\text{W}$ にはタルシス三山が分離して確認される。同日のDAr氏の $\omega=126^\circ\text{W}$ でも然りである。DTy氏の18Sept($\lambda=316^\circ\text{Ls}$) $\omega=103^\circ\text{W}$ でも未だ三點が分離しているが、この像ではオリュムプス・モンスの暗點は既に日陰側の蔭ではないかと思われる。24Sept($\lambda=319^\circ\text{Ls}$)のPCq氏の $\omega=056^\circ\text{W}\sim 070^\circ\text{W}$ では然し、稍分離が困難になっている(36cmSCT)。そして、27Sept($\lambda=321^\circ\text{Ls}$) $\omega=085^\circ\text{W}$ のDPk氏の良像では、最早三點は分離していないように見える(但し同日のEGf氏の $\omega=116^\circ\text{W}$ では分離している様にも見える)。一方翌日のWF1氏の28Sept($\lambda=321^\circ\text{Ls}$) $\omega=093^\circ\text{W}$ 、 098°W 、 103°W では分離しない、のみならずアスクラエウス・モンスは細長くなっている。これは地形に合っている。オリュムプス・モンスの暗點の形も變わって来ている。つまり、先に總括したように、この時點で、これまで最初は黄雲の上に出ていた山頂に替わり、次第に山陰の方が強くなった筈だが、ここに来て更に浮遊黄雲の厚みが減少して、下部も含めてタルシス山系全體の蔭が見えるようになったということであろう。他に、メルカ(JM1)氏の28Sept($\lambda=321^\circ\text{Ls}$) $\omega=101^\circ\text{W}$ 、EGf氏の1Oct($\lambda=323^\circ\text{Ls}$) $\omega=076^\circ\text{W}$ 、 082°W 、Ak氏の10Oct($\lambda=329^\circ\text{Ls}$) $\omega=112^\circ\text{W}$ 等を参照されたい。

e)ダエダリア：ダエダリアには2003年ぐらいから翳りが

見られるのであるが、今回は扇状型に擴がりが見られマレ・シレヌムとの関係が微妙である。詳細は未だ待つべきだが、今回は次の畫像が参考になる。DPc氏の15Sept($\lambda=314^\circ\text{Ls}$) $\omega=123^\circ\text{W}\sim 147^\circ\text{W}$ 、16Sept($\lambda=315^\circ\text{Ls}$) $\omega=116^\circ\text{W}\sim 138^\circ\text{W}$ 、DTy氏の16Sept($\lambda=315^\circ\text{Ls}$) $\omega=114^\circ\text{W}$ 、美國ではアンダーソン(DAd)氏の27Sept($\lambda=321^\circ\text{Ls}$) $\omega=105^\circ\text{W}$ 、EGf氏の同日 $\omega=116^\circ\text{W}$ 、JMI氏の28Sept($\lambda=321^\circ\text{Ls}$) $\omega=101^\circ\text{W}$ 、それにAk氏の10Oct($\lambda=329^\circ\text{Ls}$) $\omega=112^\circ\text{W}$ 。**f)マレ・シレヌム**：今期の繊細なマレ・シレヌムの影像是WFI氏の22Sept($\lambda=318^\circ\text{Ls}$) $\omega=148^\circ\text{W}$ 、 152°W 、 157°W 、 162°W にある。他に、BKn氏の16Sept($\lambda=315^\circ\text{Ls}$) $\omega=131^\circ\text{W}$ 、RGh氏の17Sept($\lambda=315^\circ\text{Ls}$) $\omega=137^\circ\text{W}$ 、SWk氏の19Sept($\lambda=316^\circ\text{Ls}$) $\omega=148^\circ\text{W}$ 、EGf氏の22Sept($\lambda=318^\circ\text{Ls}$) $\omega=159^\circ\text{W}$ を参照。なお、マレ・シレヌムからマレ・キムメリウムに掛けての風景はWFI氏の21Sept($\lambda=318^\circ\text{Ls}$) $\omega=162^\circ\text{W}$ 、 166°W 、 171°W 、 173°W を参照。**g)マレ・キムメリウムと新運河**：マレ・キムメリウム全體はWFI氏の17Sept($\lambda=315^\circ\text{Ls}$) $\omega=203^\circ\text{W}$ 、 208°W 、 214°W にまだ黄雲下の様相が出ている。 $\omega=203^\circ\text{W}$ には(既にDPc氏によって#336の6SeptのLtEで指摘された)アエテリア暗斑東端からマレ・キムメリウムの西端に奔る斑點鎖状の運河が出ている。18Sept($\lambda=316^\circ\text{Ls}$) $\omega=189^\circ\text{W}$ 、 194°W 、 200°W 、 203°W も参照。 $\omega=203^\circ\text{W}$ は共通である。新運河はMnが25Sept($\lambda=320^\circ\text{Ls}$) $\omega=224^\circ\text{W}$ 、 233°W で把握し、Km氏も27Sept($\lambda=321^\circ\text{Ls}$) $\omega=239^\circ\text{W}$ で表出している。他に11Oct($\lambda=329^\circ\text{Ls}$)にはDTy氏が $\omega=213^\circ\text{W}$ で、RGh氏が $\omega=226^\circ\text{W}$ 、 230°W で、DAR氏が $\omega=234^\circ\text{W}$ 、 247°W 、シャープ(ISp)氏が $\omega=240^\circ\text{W}$ で描寫している。またPCq氏の12Oct($\lambda=329^\circ\text{Ls}$) $\omega=230^\circ\text{W}$ にも出ている。**h)ヴァルハツラ**：ヴァルハツラは暗色模様ではなく地形の蔭に據って出来るもので、 l が大きい必要がある。既にDPc氏の8Sept($\lambda=310^\circ\text{Ls}$)等でも黄雲を透かして見えているが、今回も未だ l は大きくSWk氏の18Sept($\lambda=316^\circ\text{Ls}$) $\omega=174^\circ\text{W}$ や21Sept($\lambda=318^\circ\text{Ls}$)にはWFI氏の $\omega=162^\circ\text{W}$ 、 166°W 、 171°W 、 173°W やJMI氏の $\omega=161^\circ\text{W}\sim 164^\circ\text{W}$ に出ている。22Sept($\lambda=318^\circ\text{Ls}$)のWFI氏の $\omega=148^\circ\text{W}$ 、 152°W 、 157°W 、 162°W の像や、EGf氏の $\omega=159^\circ\text{W}$ を見ると黄雲の沈下によって稍濃くなっているかと思われる。**i)エリュシウム**：DPc氏が8Sept($\lambda=310^\circ\text{Ls}$) $\omega=191^\circ\text{W}\sim 202^\circ\text{W}$ 等で描寫したエリュシウム内の暗條は今回、WFI氏の21Sept($\lambda=318^\circ\text{Ls}$) $\omega=162^\circ\text{W}$ 、 166°W 、 171°W 、 173°W に出ている。同日のEGf氏の $\omega=176^\circ\text{W}$ には弱い l が、この像ではプレグラの描寫が好い。尚EAI氏の25Sept($\lambda=320^\circ\text{Ls}$) $\omega=181^\circ\text{W}$ のB像ではエリュシウムの北、北極雲に接して黒味が強くなっている。逆に全體に水蒸氣が擴がっていることを示し、この邊りだけ下降氣流があるのだと思われる。北極雲にも影響している(下記北極雲の項も参照)。**j)トリナクリアとマレ・テュッレヌム**：マレ・テュッレヌムが意外と回復していない。同時にトリナクリアが2003年や2005年と違って潰れてしまつて1988年型である。例えば、11Oct($\lambda=329^\circ\text{Ls}$)のDAR氏($\omega=234^\circ\text{W}$)、ISp氏($\omega=240^\circ\text{W}$)、PLw氏($\omega=244^\circ\text{W}$)、PCq氏($\omega=245^\circ\text{W}$)、RGh氏($\omega=258^\circ\text{W}$)の像を参照するとよい。**k)シュルティス・マイヨルとヘツラス**：シュルティス・マイヨルはIR系で増感すると細く妙な具合になるが、ヘフナー(RHf)氏の21Sept($\lambda=318^\circ\text{Ls}$) $\omega=276^\circ\text{W}$ の像が幅が好く出て秀逸である。ホイヘンス・クレータやその後方のアエリア内の暗點(2003年からお馴染み)も出ている。シヌス・サバエウスは濃く、ヘツラスは靄った感じ。朝方のシュルティス・マイヨルではISp氏の11Oct($\lambda=329^\circ\text{Ls}$) $\omega=240^\circ\text{W}$ でのものが好感が持てる。他は省略。ヘツラスは、Mnの18Sept($\lambda=317^\circ\text{Ls}$)、19Sept($\lambda=317^\circ\text{Ls}$)の觀測では夕端に來ると白霧が先行する。尚、Km氏が20Septから日毎に追っている。逆順で示すと27Sept($\lambda=321^\circ\text{Ls}$) $\omega=239^\circ\text{W}$ では朝方で輝き、稍内に入って25Sept($\lambda=320^\circ\text{Ls}$) $\omega=249^\circ\text{W}$ 、 258°W でも明るく、22Sept($\lambda=318^\circ\text{Ls}$) $\omega=280^\circ\text{W}/282^\circ\text{W}$ では圓く明るく、夕方の20Sept($\lambda=317^\circ\text{Ls}$) $\omega=303^\circ\text{W}/306^\circ\text{W}$ では正常に近い(内部が見えるかも知れない)。一方、BKn氏は5Oct($\lambda=325^\circ\text{Ls}$)に $\omega=264^\circ\text{W}$ 、 271°W 、 275°W 、 289°W 、 296°W と二時間十分掛けて追っている。朝方で(内部反射の爲)明るく、次第に鈍くなる。薄い浮遊黄塵は内部反射の逆光を受けるとと思われる。同日の夕方は、ヒダルゴ(EHd)氏の $\omega=307^\circ\text{W}$ 、キッド(SKd)氏の $\omega=330^\circ\text{W}$ 、SWk氏の $\omega=341^\circ\text{W}$ があるが、SWk氏の像では縁に白い水蒸氣が出ている様で重要である。PCq氏も6Oct($\lambda=326^\circ\text{Ls}$)に $\omega=268^\circ\text{W}$ 、 293°W 、 304°W と追う。 $\omega=306^\circ\text{W}$ ではBでもヘツラスは稍明るい l が水蒸氣に依るか、白色光反射に依るか一寸分からない。7Oct($\lambda=327^\circ\text{Ls}$)にはDPc氏が $\omega=260^\circ\text{W}$ 、 280°W 、 289°W と追っている。最後の像には稍内部構造が見え

るかも知れない。DPk氏の12Oct($\lambda=329^\circ\text{Ls}$) $\omega=306^\circ\text{W}$ には内部構造が見え、通常に近くなっている。尚、この時期のヘッラスの通常の様子については、CMO #311 (25 Oct 2005号)に述べてある(CMO-Webではhttp://homepage2.nifty.com/~cmomn2/2005Coming_14.htm リマレ・セルペンティスからシヌス・サバエウスの領域：この領域は1928年型のノアキスを斜めに走る暗帯と共に興味のあるところであり、依然マレ・セルペンティス邊りは濃く複雑である。期日を追って観測を書き込むと、Km氏の18Sept($\lambda=316^\circ\text{Ls}$) $\omega=326^\circ\text{W}/329^\circ\text{W}$ (シヌス・メリディアニは未だ弱い)、20Sept($\lambda=317^\circ\text{Ls}$) $\omega=303^\circ\text{W}/306^\circ\text{W}$ 、SGh氏の26Sept($\lambda=320^\circ\text{Ls}$) $\omega=327^\circ\text{W}$ 、28Sept($\lambda=321^\circ\text{Ls}$) $\omega=307^\circ\text{W}$ など。30Sept($\lambda=323^\circ\text{Ls}$)のBKn氏の $\omega=330^\circ\text{W}$ ではシヌス・サバエウスとデウカリオニス・レギオ東部が區別できないぐらいだが、そのあとをDPc氏が連続撮像し、 $\omega=336^\circ\text{W}$ 、 340°W 、 348°W 、・・・と秀逸な像を残している。PCq氏は3Oct($\lambda=324^\circ\text{Ls}$) $\omega=299^\circ\text{W}$ 、5Oct($\lambda=325^\circ\text{Ls}$) $\omega=324^\circ\text{W}$ で、IR系の像を出している。5OctにはSKd氏の $\omega=330^\circ\text{W}$ がある。PLw氏は連続して、4Oct($\lambda=325^\circ\text{Ls}$) $\omega=311^\circ\text{W}$ 、5Oct($\lambda=325^\circ\text{Ls}$) $\omega=292^\circ\text{W}$ 、6Oct($\lambda=326^\circ\text{Ls}$) $\omega=286^\circ\text{W}$ 、7Oct($\lambda=327^\circ\text{Ls}$) $\omega=291^\circ\text{W}$ と撮っている。PLw氏の5Octではホイヘンス・クレータが綺麗である。他に、DPk氏の12Oct($\lambda=329^\circ\text{Ls}$) $\omega=306^\circ\text{W}$ 、DAd氏の15Oct($\lambda=331^\circ\text{Ls}$) $\omega=300^\circ\text{W}$ 参照。m)北極雲： ϕ が上がってきたので、北極雲は見やすくなっている。而もドーズ・スリットの季節である。以下注目すべき観測だけ挙げる。既にDPc氏の16Sept($\lambda=315^\circ\text{Ls}$) $\omega=119^\circ\text{W}$ 、 128°W 、 134°W のBでの北極雲の濃淡のニュアンスは好く出ている。WFI氏の21Sept($\lambda=318^\circ\text{Ls}$) $\omega=162^\circ\text{W}$ 、 166°W 、 171°W 、 173°W では北極雲の中程に暗線が走っている(ギュンデス邊りか)。22Sept($\lambda=318^\circ\text{Ls}$) $\omega=148^\circ\text{W}$ 、 152°W 、 157°W 、 162°W も秀逸で同様の暗線が見えている。北極雲の境界はプロポンティスIとギュンデスの中間に入る。EAI氏の先述の25Sept($\lambda=320^\circ\text{Ls}$) $\omega=181^\circ\text{W}$ では北極雲の先方が暗くなっているが、同氏の26Sept($\lambda=321^\circ\text{Ls}$) $\omega=168^\circ\text{W}$ では回復しているように見える。DPc氏の26Sept($\lambda=320^\circ\text{Ls}$) $\omega=022^\circ\text{W}/025^\circ\text{W}$ はマレ・アキダリウムの北の北極雲を寫すが、不鮮明。30Sept($\lambda=323^\circ\text{Ls}$)のDPc氏の $\omega=336^\circ\text{W}(339^\circ\text{W})$ 、 348°W 、 357°W 、 008°W には北極雲の北端を透かして暗地が出ている。北極雲そのものはDAR氏の日 $\omega=340^\circ\text{W}$ 、 $343^\circ\text{W}(346^\circ\text{W})$ 、 352°W に出ているが青味が強すぎる。同日、ビヴェール(NBv)氏がデジカメで $\omega=355^\circ\text{W}$ で強く出ししており、スケッチでも $\omega=009^\circ\text{W}$ でマレ・アキダリウム北の北極雲の内部を観察している。この日は更に、ディキンソン(WDc)氏が $\omega=023^\circ\text{W}$ で、SWk氏が $\omega=033^\circ\text{W}$ でマレ・アキダリウム北の北極雲を追っている。WFI氏の3、4、5Octの像は既述のように優れているが、5Oct($\lambda=326^\circ\text{Ls}$) $\omega=021^\circ\text{W}$ 、 026°W 、 031°W 、 036°W の北極雲内にはまるでドーズ・スリットが西にずれたように暗線が寫っている。同日のSWk氏の東側の $\omega=341^\circ\text{W}$ も参照。9Oct($\lambda=328^\circ\text{Ls}$) $\omega=009^\circ\text{W}$ ではEGf氏がドーズ・スリットをピシヤリ撮った。ウォーレン(JWn)氏が $\omega=338^\circ\text{W}$ で北極雲内に暗点を撮っているが、二時間ほど早く、分からない(JWn)氏の11Oct($\lambda=329^\circ\text{Ls}$) $\omega=336^\circ\text{W}$ も参照)。ELm氏の13Oct($\lambda=330^\circ\text{Ls}$) $\omega=352^\circ\text{W}$ 、 356°W 、 (358°W) 、 000°W にもドーズ・スリットが出ている。同氏の翌日14Oct($\lambda=331^\circ\text{Ls}$) $\omega=341^\circ\text{W}\sim 355^\circ\text{W}$ のマレ・アキダリウム北の北極雲内にも暗点が見える。また、14Oct($\lambda=331^\circ\text{Ls}$) $\omega=341^\circ\text{W}$ のEAI氏の観測は霧が出てR像だけとなったが、ドーズ・スリットと思しき暗條が見えている。Rでは透らないぐらい北極雲が厚いからであろう。歐羅巴ではDAR氏の11Oct($\lambda=325^\circ\text{Ls}$) $\omega=234^\circ\text{W}$ 、 247°W のB像は秀逸で、北極雲の内部構造が好く出ている。14Oct($\lambda=330^\circ\text{Ls}$) $\omega=220^\circ\text{W}$ のコヴォツリク(SKw)さんの北極雲も二つ玉に分かれている。

♂.....Te following season from $\lambda=330^\circ\text{Ls}$ to $\lambda=360^\circ\text{Ls}$ is known, if the atmospheric condition is normal, as a period where the water vapour is abundant from the south polar region to the equator. Unfortunately the phase angle is large ($\iota=30^\circ$ in mid-November and $\iota=20^\circ$ at the beginning of December), while it is important to watch the morning limb in B since it may be related with the clearing of dust. In the next issue we shall review the observations made during a one-month period from 16 October ($\lambda=331^\circ\text{Ls}$, $\delta=10.8''$) to 15 November 2007 ($\lambda=348^\circ\text{Ls}$, $\delta=13.7''$). On 15 November the apparent declination D will attain $D=24^\circ 27' \text{N}$

*Forthcoming 2007/2008 Mars (13)***Ephemeris for the Observations of the 2007/2008 Mars. VI***November and December 2007 (Revised)***Masami MURAKAMI 村上 昌己 (Mk)**

As a sequel to the Ephemeris V (in CMO #335), we here list the necessary elements of the Ephemeris for the physical observation of Mars from 1 November 2007 to 31 December 2007. The data are listed for every day at 00:00 GMT (not TDT). ω and ϕ denote the longitude and latitude of the sub-Earth point respectively. The symbols λ , δ and ι stand for the areocentric longitude of the Sun, the apparent diameter and the phase angle

respectively. From this apparition, we have also added the column of the Position Angle Π of the axis rotation, measured eastwards from the north point: This is useful to determine the north pole direction from the $p \leftarrow$. The apparent declination D of the planet is also given at the final column. The data here are basically based on *The Astronomical Almanac for the Year 2007*.

Date (00:00GMT)	ω	ϕ	λ	δ	ι	Π	D
01 November 2007	344.32°W	7.2°N	340.06°Ls	12.17"	35.9°	-20.7°	+23°57'
02 November 2007	335.05°W	7.3°N	340.59°Ls	12.27"	35.5°	-20.6°	+23°58'
03 November 2007	325.78°W	7.3°N	341.12°Ls	12.36"	35.2°	-20.5°	+24°00'
04 November 2007	316.53°W	7.3°N	341.65°Ls	12.46"	34.8°	-20.4°	+24°02'
05 November 2007	307.28°W	7.3°N	342.18°Ls	12.56"	34.4°	-20.3°	+24°04'
06 November 2007	298.05°W	7.4°N	342.71°Ls	12.66"	34.0°	-20.3°	+24°05'
07 November 2007	288.82°W	7.4°N	343.24°Ls	12.75"	33.6°	-20.2°	+24°07'
08 November 2007	279.61°W	7.4°N	343.77°Ls	12.85"	33.2°	-20.1°	+24°10'
09 November 2007	270.41°W	7.4°N	344.30°Ls	12.95"	32.8°	-20.1°	+24°12'
10 November 2007	261.22°W	7.4°N	344.82°Ls	13.06"	32.3°	-20.0°	+24°14'
11 November 2007	252.05°W	7.4°N	345.35°Ls	13.16"	31.9°	-20.0°	+24°16'
12 November 2007	242.88°W	7.4°N	345.87°Ls	13.26"	31.4°	-20.0°	+24°19'
13 November 2007	233.73°W	7.3°N	346.39°Ls	13.36"	30.9°	-19.9°	+24°21'
14 November 2007	224.59°W	7.3°N	346.91°Ls	13.47"	30.4°	-19.9°	+24°24'
15 November 2007	215.46°W	7.2°N	347.43°Ls	13.57"	29.9°	-19.9°	+24°27'
16 November 2007	206.34°W	7.2°N	347.95°Ls	13.67"	29.4°	-19.9°	+24°30'
17 November 2007	197.24°W	7.2°N	348.47°Ls	13.77"	28.9°	-19.9°	+24°33'
18 November 2007	188.15°W	7.1°N	348.99°Ls	13.87"	28.3°	-19.9°	+24°36'
19 November 2007	179.07°W	7.0°N	349.50°Ls	13.97"	27.8°	-19.9°	+24°39'
20 November 2007	170.00°W	7.0°N	350.02°Ls	14.07"	27.2°	-20.0°	+24°42'
21 November 2007	160.95°W	6.9°N	350.53°Ls	14.17"	26.6°	-20.0°	+24°45'
22 November 2007	151.91°W	6.8°N	351.05°Ls	14.27"	26.0°	-20.0°	+24°49'
23 November 2007	142.88°W	6.7°N	351.56°Ls	14.36"	25.3°	-20.1°	+24°52'
24 November 2007	133.87°W	6.6°N	352.07°Ls	14.46"	24.7°	-20.1°	+24°56'
25 November 2007	124.87°W	6.5°N	352.58°Ls	14.55"	24.1°	-20.2°	+25°00'
26 November 2007	115.88°W	6.4°N	353.10°Ls	14.65"	23.4°	-20.3°	+25°03'
27 November 2007	106.90°W	6.3°N	353.61°Ls	14.74"	22.8°	-20.4°	+25°07'
28 November 2007	097.93°W	6.2°N	354.12°Ls	14.83"	22.1°	-20.5°	+25°11'
29 November 2007	088.98°W	6.0°N	354.63°Ls	14.91"	21.4°	-20.6°	+25°15'
30 November 2007	080.04°W	5.9°N	355.14°Ls	15.00"	20.7°	-20.7°	+25°19'
01 December 2007	071.12°W	5.8°N	355.64°Ls	15.08"	19.9°	-20.8°	+25°23'
02 December 2007	062.20°W	5.6°N	356.15°Ls	15.16"	19.2°	-20.9°	+25°27'
03 December 2007	053.30°W	5.5°N	356.65°Ls	15.23"	18.5°	-21.1°	+25°31'
04 December 2007	044.41°W	5.3°N	357.16°Ls	15.31"	17.7°	-21.2°	+25°35'
05 December 2007	035.52°W	5.2°N	357.66°Ls	15.38"	17.0°	-21.4°	+25°39'
06 December 2007	026.65°W	5.0°N	358.16°Ls	15.45"	16.2°	-21.5°	+25°44'
07 December 2007	017.80°W	4.8°N	358.66°Ls	15.51"	15.4°	-21.7°	+25°48'
08 December 2007	008.95°W	4.6°N	359.16°Ls	15.56"	14.6°	-21.8°	+25°52'
09 December 2007	000.11°W	4.5°N	359.66°Ls	15.62"	13.8°	-22.0°	+25°56'
10 December 2007	351.28°W	4.3°N	000.16°Ls	15.67"	13.0°	-22.2°	+26°00'
11 December 2007	342.45°W	4.1°N	000.66°Ls	15.71"	12.2°	-22.4°	+26°04'
12 December 2007	333.64°W	3.9°N	001.16°Ls	15.75"	11.4°	-22.6°	+26°07'
13 December 2007	324.83°W	3.7°N	001.65°Ls	15.78"	10.5°	-22.7°	+26°11'

Date (00:00GMT)	ω	φ	λ	δ	ι	Π	D
14 December 2007	316.03°W	3.5°N	002.15°Ls	15.82"	09.7°	-22.9°	+26°15'
15 December 2007	307.24°W	3.3°N	002.65°Ls	15.84"	08.9°	-23.1°	+26°18'
16 December 2007	298.45°W	3.1°N	003.14°Ls	15.86"	08.0°	-23.3°	+26°22'
17 December 2007	289.67°W	2.9°N	003.64°Ls	15.87"	07.2°	-23.5°	+26°25'
18 December 2007	280.89°W	2.7°N	004.13°Ls	15.89"	06.3°	-23.7°	+26°28'
19 December 2007	272.12°W	2.5°N	004.62°Ls	15.89"	05.5°	-23.9°	+26°31'
20 December 2007	263.34°W	2.3°N	005.12°Ls	15.88"	04.8°	-24.2°	+26°34'
21 December 2007	254.57°W	2.1°N	005.61°Ls	15.88"	04.0°	-24.4°	+26°37'
22 December 2007	245.80°W	1.9°N	006.10°Ls	15.87"	03.2°	-24.6°	+26°40'
23 December 2007	237.03°W	1.7°N	006.59°Ls	15.84"	02.6°	-24.8°	+26°42'
24 December 2007	228.27°W	1.5°N	007.08°Ls	15.81"	02.2°	-25.0°	+26°44'
25 December 2007	219.50°W	1.3°N	007.56°Ls	15.78"	02.1°	-25.2°	+26°46'
26 December 2007	210.73°W	1.1°N	008.05°Ls	15.75"	02.3°	-25.4°	+26°48'
27 December 2007	201.95°W	0.9°N	008.54°Ls	15.70"	03.0°	-25.6°	+26°50'
28 December 2007	193.18°W	0.7°N	009.02°Ls	15.65"	03.7°	-25.8°	+26°52'
29 December 2007	184.40°W	0.5°N	009.51°Ls	15.60"	04.3°	-26.0°	+26°53'
30 December 2007	175.61°W	0.3°N	009.99°Ls	15.55"	05.0°	-26.2°	+26°54'
31 December 2007	166.83°W	0.1°N	010.47°Ls	15.48"	05.8°	-26.4°	+26°56'
1 January 2008	158.03°W	0.0°S	010.96°Ls	15.41"	06.6°	-26.6°	+26°56'
2 January 2008	149.23°W	0.2°S	011.44°Ls	15.34"	07.4°	-26.7°	+26°57'
3 January 2008	140.43°W	0.4°S	011.92°Ls	15.27"	08.2°	-26.9°	+26°58'

便り

Letters to the Editor

●.....Date: Mon, 24 Sept 2007 20:28:33 +0200
Subject: Mars 23 september

Hi all, Here a capture of last weekend, poor conditions when I started but after a good nap it became fair, there seems a bright spot at Argyre like Andrea mentioned. At the morning site there seems somewhat fog present. best

○.....Date: Tue, 9 Oct 2007 23:30:23 +0200
Subject: Mars 7 octobre

A bit late due to computerproblems and busy schedule, Conditions were somewhat mixed but I guess there were some good frames in it, the recent intensified ridge discovered by Dave and Damian can be seen. best

○.....Date: Wed, 17 Oct 2007 16:53:56 +0200
Subject: Mars 15th octobre

Hi Fellows, Here a image from last weekend, conditions were harsh with rapid seeing, Registax couldn't align itjust to chaotic. The dull side of Mars with Olympus Mons just on the terminator. There seems some vapors above Mare Cimmerium running down to Elysium at the morning side. best to you

Jan ADELAAR (ヤン・アデルール Arnhem 荷蘭)

●.....Date: Mon, 24 Sept 2007 22:39:42 +0000
Subject: Mars 22 September

Hi All, I have attached some Mars images from 22 September. No Arsia cloud or other orographics were visible.

○.....Date: Fri, 28 Sept 2007 20:44:51 +0000
Subject: Mars 27 September

Hi All, I have attached some Mars images from 27 September. Changes in the Solis Planitia; verk dark streak across Dædalia. Best,

○.....Date: Sun, 07 Oct 2007 21:56:44 +0000
Subject: Mars 3 October

Hi All, I have attached some Mars images from 3 Octo-

ber. The NPH is bright, irregular with some albedo features visible beneath it. Otherwise, no clouds detected.

○.....Date: Mon, 15 Oct 2007 05:13:43 +0000
Subject: Mars 12 October

Hi All, I have attached some Mars images from 12 October. Albedo features seen through NPH. Mars appears pretty normal for the season, but no discrete clouds detected as were seen in 2005 at the same Ls. See images from late November/early December, 2005. Best,

Don PARKER (唐那·派克 Miami FL 美)

●.....Date: Mon, 24 Sept 2007 17:11:34 -0500
Subject: Image - September 24th, 2007

An image from September 22th 2007.

<http://www.ghg.net/egrafton/09-24-07.jpg>

○.....Date: Thu, 27 Sept 2007 20:59:26 -0500
Subject: Image - September 27th, 2007

An image from September 27th 2007.

<http://www.ghg.net/egrafton/09-27-07.jpg>

○.....Date: Mon, 1 Oct 2007 16:02:45 -0500
Subject: Image October 1st 2007

An image from October 1st 2007. Good seeing between the clouds. No presentable red image as it was somewhat mangled by the clouds.

<http://www.ghg.net/egrafton/10-01-07.jpg>

○.....Date: Wed, 3 Oct 2007 19:47:04 -0500
Subject: Mars October 3rd 2007

An image from October 3rd 2007. Seeing was variable as cirrus clouds moved through.

<http://www.ghg.net/egrafton/10-03-07.jpg>

○.....Date: Thu, 4 Oct 2007 20:59:21 -0500
Subject: Mars October 4th 2007

An image from October 4th 2007. Seeing was variable.

<http://www.ghg.net/egrafton/10-04-07.jpg>

○.....Date: Sat, 6 Oct 2007 11:45:01 -0500
Subject: Mars October 5th 2007

An image from October 5th 2007.

<http://www.ghg.net/egrafton/10-05-07.jpg>

○.....Date: Tue, 9 Oct 2007 11:30:28 -0500
Subject: Mars October 9th 2007

An image from October 9th 2007. An interesting configuration of the NPH and perhaps some brightening in the Northern Chryse/Xanthe region.

<http://www.ghg.net/egrafton/10-09-07.jpg>

○ ······ **Date: Sat, 13 Oct 2007 11:03:22 -0500**
Subject: Mars October 11th, 12th, 13th, 2007

Images from October 11th, 12th, 13th, 2007.

<http://www.ghg.net/egrafton/10-11-07.jpg>

<http://www.ghg.net/egrafton/10-12-07.jpg>

<http://www.ghg.net/egrafton/10-13-07.jpg>

○ ······ **Date: Sat, 20 Oct 2007 20:25:31 -0500**
Subject: Mars October 20th 2007

An image from October 20th 2007. Finally some cool weather (60F) but still very humid. Only briefly a few moments of good seeing but long enough to capture data.

<http://www.ghg.net/egrafton/10-20-07.jpg>

Ed GRAFTON (エド・グラフトン Houston TX 美)

● ······ **Date: Tue, 25 Sept 2007 03:03:26 +0100**
Subject: Mars 2007 September 12

Not very dissimilar to my previous set, but the NPH looking very strong in blue. Olympus right on terminator, dust still causing a bright bump in Eridania on the limb.

○ ······ **Date: Thu, 27 Sept 2007 02:46:08 +0100**
Subject: Mars 2007 September 13

I can't seem to process these as fast as I can take them. These are from a poor seeing night. Olympus is prominent on the terminator, as are two of the Tharsis volcanoes in the upper image. The NPH is very blue. The second blue image suffers from an unfortunate dust ring artefact. This arises because the new Astro-Physics 1200 mount holds the planet in one place on the chip so accurately that any blemishes are not smoothed out by drift, unless one moves the image deliberately.

○ ······ **Date: Sun, 30 Sept 2007 16:49:41 +0100**
Subject: Mars 2007 September 15

Similar shots to my last set, with OM and Tharsis volcanoes shadowed near the limb. I went down in image scale this morning with a combination of a 2x and 1.6x Barlows rather than 2x2x. Results probably a bit better, but still experimenting.

○ ······ **Date: Mon, 1 Oct 2007 02:53:29 +0100**
Subject: Mars 2007 September 30 (2)

Here are my IR images from the morning of the 30th, combined with a sequence of blue images to create (IR)(SG)B composites.

These span a period of about an hour, over which there is seen to be no real change. See also my other email.

○ ······ **Date: Wed, 3 Oct 2007 01:23:07 +0100**
Subject: Mars 2007 September 16

This set of images demonstrates the slight difference between results using an (IR)(SG)B technique and the proper "true" colour RGB technique. The top line contains two IR and synthesised green images, separated by 12 minutes. The bottom line is the RGB result from an intermediate time. All images share the same blue component. There is actually little difference in the sharpness of results of the two methods but the yellow-green spectrum is not correctly rendered in the synth. G images. The Olympus and Tharsis volcanoes stand out, plus another spot in the Araxes area, near the CM to the S, which is not a volcano.

Damian commented on this date that he had not imaged any clouds over the volcanoes in recent weeks. Neither have I.

○ ······ **Date: Sat, 6 Oct 2007 02:19:20 +0100**
Subject: Mars 2007 September 23

Here are some shots of Mars in quite good seeing, looking, to me, remarkably like a coloured version of the Moon seen with the naked eye. IR contrast is seen to be very good: not much dust in the atmosphere by this date.

○ ······ **Date: Sun, 7 Oct 2007 20:12:12 +0100**
Subject: Mars 2007 September 26

It has been commented (by Dave Tyler) that my Mars colour composites were getting too blue, so I have adjusted them slightly to the left of the political spectrum. If only our politicians were so maleable. The brightest area visible in R is Candor.

○ ······ **Date: Thu, 18 Oct 2007 01:55:40 +0100**
Subject: Mars 2007 October 11

A good set of images was obtained on the morning of Oct. 11, through various filters. These are presented as two LRGB sets in one document, and R(SG)B or (IR)(SG)B sets in two more documents, one from an earlier period, and one from later.

I was experimenting with the various R and IR filters I have, and these are all labelled carefully, but in the end the results all proved actually very similar. The further one goes into the IR, of course, the stiller the seeing gets, but also, of course, the fainter the image gets, so one has to compensate by increased gain or exposure, and these effects pretty much seem to cancel one another out. If anything the Baader "IR" filter gives slightly less good results than the others. This is not surprising as it is the only dyed glass filter; the others are interference filters.

On Mars itself, the yellow bowl of Hellas on the limb remains bright, and the fissure in the NPH is very clear.

○ ······ **Date: Sat, 20 Oct 2007 21:52:45 +0100**
Subject: Mars 2007 October 18

We have been having a lot of clear mornings lately in SE England, as some of you tired people know.

I have increased my image scale in these by stacking an AE 1.6x Imagemate with a Televue 3x Barlow. Composites are (IR)GB with an IR luminance. They seem to have gone rather green round the gills - a queasy Mars. Probably too much wavelet sharpening of the G channel is responsible. Best wishes,

David ARDITTI (デウイット・アーティ Edgware ME 英)

● ······ **Date: Tue, 25 Sept 2007 11:21:25 +0100**
Subject: Mars, September 25th '07

Hi everyone, Here's a preliminary process of Mars captured on the morning of the 25th September 2007 under rather blustery conditions. Best regards,

○ ······ **Date: Thu, 04 Oct 2007 17:58:48 +0100**
Subject: Moist Mars, October 4th 2007

Hi Observers, Here's my first capture of Mars from this morning's difficult session. A lot of fast moving high misty cloud, lots of dew on the telescope's corrector and vapour trails galore. Having stated this, the seeing was reasonably good and the Martian disk was fairly stable on my laptop screen. The processing for this set was done early this morning and I may re-work it later to try and reduce the limb artifact. A later session appears to be showing better detail, especially in the green channel. I'll post that later on when I've finished working on it.

The attached version is 80% full size. If you need access to the full size version it can be seen here:

http://www.digitalsky.org.uk/mars/2007-10-04_04-23-Mars_1024.jpg

○ ······ **Date: Fri, 05 Oct 2007 12:06:05 +0100**
Subject: Mars, reasonable seeing, October 5th 2007

Hi all, Here's my first processed Mars from this morning's

session (October 5th 2007). Reasonable seeing at this time with good transparency.

http://www.digitalsky.org.uk/mars/2007-10-05_03-47-Mars_1024.jpg

○.....Date: Sat, 06 Oct 2007 23:22:08 +0100
Subject: Mars from the morning of the 6th October

Hi all, Here's an image of Mars taken on the morning of the 6th October 2007. Conditions were reasonable but not as good as the previous morning, the blue channel in particular being very poorly rendered.

http://www.digitalsky.org.uk/mars/2007-10-06_03-58-Mars_1024.jpg

○.....Date: Sun, 07 Oct 2007 16:06:14 +0100
Subject: Mars, October 7th 2007, CM 292

Hi all, A much better morning than yesterday despite

worsening transparency. The blue channel capture was better defined and the NPH was particularly noticeable.

This result is one hour later (exactly!) than yesterday's capture due to an incident with Lucam Recorder causing problems with the earlier part of the session. If there are any Lucam/SKYnyx users out there then watch out for a random effect which makes the program start up in non-licensed mode. This defaults to capture image frames as compressed JPGs rather than a normal uncompressed movie sequence. It's happened to me a couple of times over the past months and each time has resulted in a large collection of individual JPG files. If this happens, simply

TEN YEARS AGO (146)

---CMO #196 (25 October 1997) pp2167-2178---

OAA MARS SECTION Reportで、1997年9月後半・10月前半の観測がまとめられている。火星は夕方の南西の空低く、視直径も5秒角台となっていたが、四名の報告が国内からあり、観測は続けられていた。沈むのも早くなり、一日二回の観測が精一杯だった。季節は $\lambda=182^\circ\text{Ls}$ から 199°Ls に移り、北半球の秋分過ぎの姿だった。中央緯度も北向きから浅くなってきて、北極冠も捉えられなくなった。日本からの観測は、砂漠地帯のアマゾニスから、シヌス・メリディアニを経て、マレ・テュッレヌムあたりまでの範囲だった。ドイツの観測者からの追加報告も取り上げられた。宮崎勲氏の消息も紹介されている。

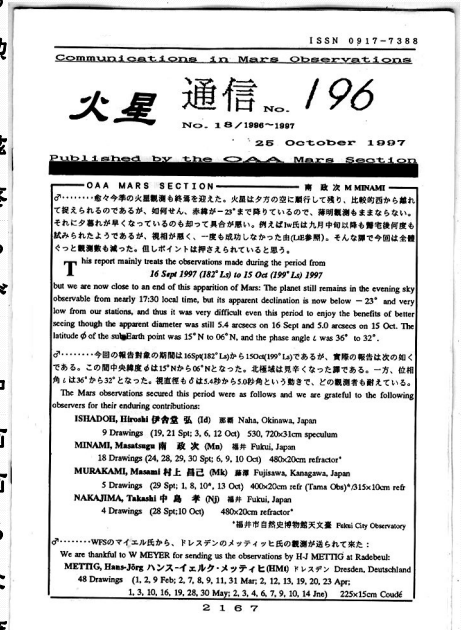
LtEにはSam WHITBY (USA), Alan HEATH (UK), 山本進(滋賀)、André NIKOLAI (Germany), Francis OGER (France), 蔡章献(Taiwan), 岩崎徹(北九州)、伊舎堂弘(沖縄)の各氏から送られてきている。Alan HEATH氏の近影と新しい観測所の写真が掲載された。筆者のコラム記事「アマ天に参加して」もある。

南氏の「夜毎餘言・LIII」は、●天文写真の憂鬱●で、世の中にあふれている天文画像への苦言である。私も同感で、天文画像で一番の拙いところは、マニアでない人が見たときに処理画像とわからないで、天体が実際に画像のように肉眼でも見えると信じてしまうところにある。HSTの画像などは言わずもがなである。このことは私も観望会などで同様に思うことで、書籍などに掲載されているものは、注意書きを入れられない限り、啓蒙と言うよりも詐称に近い。肉眼で見る天文対象の美しさはご存じのことで、天文ファンだけが知っている感動と体験を伝える手段が上手に醸されるように、はたらきかけていきたいものだと思う。天文マニアの中でも画像の撮影に力点があり、観測の本質が霞んでいる方がいるのも問題である

Click_CMO(11)は今回もMGS撮影の19Aug, 21Aug1997($\lambda=166\sim 167^\circ\text{Ls}$)の半月状の画像二枚の紹介で、前号に取り上げられたものと同様の接近中に撮影された画像である。タルシス山系、オリュンプス・モンスが写っている画像が取り上げられた。

TYA(26) は今から廿年前のCMO#039 (15 October 1987)の記事からである。火星は合を過ぎたばかりで離角が小さく観測期ではなかった。1998年の観測物理表が浅田正氏により掲載され始めた。また浅田氏の「花山天文台滞在記」後半も掲載されている。他はパーカー氏の連載記事が続いていること、来信の簡単な紹介がある。コラム記事には沖縄金環食の後で開かれた「彗星観測者懇談会」の報告もあった。

村上昌己 (MK)



restart Lucam Recorder and the issue is normally resolved.

○.....**Date: Thu, 11 Oct 2007 11:34:11 +0100**
Subject: Mars 2007 Oct 11

Hi all, Here's the first processed shot of Mars from an unexpected session this morning. Quite misty and still giving rise to some nice steady, albeit rather damp, conditions. Some nice detail coming through on this one.

http://www.digitalsky.org.uk/mars/2007-10-11_04-26-Mars_800n.jpg

○.....**Date: Fri, 19 Oct 2007 23:31:30 +0100**
Subject: Re: Mars 2007-10-18 CM189

Apologies, the azimuth of Mars wasn't 354 degrees as stated, it should have been 187 degrees. An updated image is available from here with the correction applied...

http://www.digitalsky.org.uk/Mars/2007-10-18_05-04-Mars_800n.jpg

I had been doing some work for a magazine on the Southern Hemisphere and had inadvertently relocated myself in Sydney with the program I used to obtain the information from. Regards,

Pete LAWRENCE (ピート・ローレンス Selsey 英)

●.....**Date: Tue, 25 Sept 2007 21:20:56 -0500**
Subject: Mars - September 17, 18, 21 & 22

Dear Masatsugu, We finally had a run of some clear skies here in Houston, Texas. Attached are 4 sets of images for September 17, 18, 21 & 22. Hope all is well with everyone over there! Best Regards,

○.....**Date: Wed, 3 Oct 2007 20:47:00 -0500**
Subject: Mars - September 28, 29 & October 3

Dear Masatsugu, Attached are 3 sets of images of Mars from September 28, 29 and October 3rd.

In answer to your question the LRGB method, I starting using it during the last Mars opposition. I decided one night just to give it a try and see what kind of results it would produce. I was surprised that I always seem to get better images when I used the LRGB method. I get much better signal to noise on the luminance image and hence less noise in the processed images. On nights of good seeing there doesn't seem to be much difference between the RGB and LRGB images. But as the seeing degrades, I always seem to get better results when I use the luminance image. Everyone has their own preferred methods, and the LRGB method always seems to work best for me.

As far as the LRGB method not giving good results on the NPH, I have heard the comments but at least with my setup I don't seem to have trouble with the NPH when I use the LRGB method. The LU-075M response peaks in the green light at around 508nm. The red and blue responses taper off from the green and have similar sensitivity. In the green light, the NPH appears to have good luminosity contrast. Although the contrast of the NPH to the rest of the planet is not as strong in green light as it is in blue light, the subtle details within the NPH do come through quite well in the green light. Although the LU-075 peaks in green, it does also has significant amount of response to the blue light, so the luminance exposure always seems to have a good NPH signal in it.

One other possible explanation, is that since the luminance image also contains the red signal, which typically has features with the highest contrast, the stacking algorithm has good contrast features to work with, and the resulting stack may be better aligned than say the blue only image. In other words, the blue signal contained in the luminance exposures might be better aligned during the stacking of the luminance images because of the higher contrast features present in the red and green light signals. Anyway, just some of my thoughts. Best Regards,

○.....**Date: Wed, 17 Oct 2007 13:36:15 -0500**
Subject: RE: From the CMO/OAA Secretary

Dear Masatsugu, I just returned home from traveling and received the message from Masami about your illness. I hope by now that you are out of the hospital and on the road to recovery. I know that both of your ailments can be very painful. I just wanted to let you know that you have my sympathy and that I am wishing for you to make a quick recovery. Take care my friend!

○.....**Date: Thu, 18 Oct 2007 16:23:53 -0500**
Subject: Mars Images - October 4 & 5

Dear Masatsugu & Masami, Attached are two sets of Mars images from October 4th and 5th. Sorry for the delay, I was out of town and didn't have a chance to process these before I left. The seeing on the 5th was pretty good, probably the best so far this fall. Hopefully I will get a few more good nights in the weeks to come.

Best regards,

Bill FLANAGAN (ビル・フラナガン Houston TX 美)

●.....**Date: Tue, 25 Sept 2007 23:29:08 +0200**
Subject: Mars 23. and 25. September

Dear Masatsugu, new images from 23. and 25. September. The eye of mars seems to be very dark.

Camera: DMK 21AF04 at 685nm / ToUCam Pro 740 for RGB Telescope: 12.5" Newton ($f=11m/13.5m$)

○.....**Date: Fri, 5 Oct 2007 13:47:25 +0200**
Subject: Mars 5. October 2007

Dear Masatsugu, after two cloudy and rainy weeks i send you an image, i take this (misty) night.

○.....**Date: Sun, 21 Oct 2007 15:49:49 +0200**
Subject: Mars 17./20. October 2007

Dear Masatsugu, images from 17. and 20 October. Seeing was not good. With best wishes

Ralf GERSTHEIMER

(ラルフ・ゲルシュトハイマー Habichitswald 德)

●.....**Date: Wed, 26 Sept 2007 07:06:09 +0900**
Subject: Mars-2007-09-25-KUMAMORI

北の高気圧に覆われて一気に涼しくなりました。エアコン室外機との闘いは終わりそうです。

○.....**Date: Fri, 28 Sept 2007 08:18:48 +0900**
Subject: Mars-2007-09-27-KUMAMORI

天気予報が外れて晴れたのですが、起きるのが遅れて1画像しか撮影できませんでした。

○.....**Date: Sun, 7 Oct 2007 07:03:10 +0900**
Subject: Mars-2007-10-06-KUMAMORI

久しぶりに良く晴れましたが、シーイングは良くありません。全体的に思ったほど赤みを感じられません。

○.....**Date: Tue, 16 Oct 2007 10:02:51 +0900**
Subject: Mars-2007-10-15-KUMAMORI

何度か晴れた日もありましたが、寝過ごしてしまいました。視直径10秒を越えてから、やっと撮影することができました。北極回りの白雲が明るく見えていました。撮影サイズから66%に縮小した画像で報告いたします。

○.....**Date: Thu, 18 Oct 2007 06:11:02 +0900**
Subject: Mars-2007-10-16-KUMAMORI

二日続けての晴れですが、写りは今ひとつ良くありません。北極周りの白雲が相変わらずしっかりと見えていました。

○.....**Date: Sat, 20 Oct 2007 06:16:05 +0900**
Subject: Mars-2007-10-19-KUMAMORI

Chruse地方が黄雲のように写っていますが、単に

明るいだけかどうかシーイングが悪くて良く分かりませんでした。

○.....Date: Wed, 24 Oct 2007 07:09:50 +0900
Subject: Mars-2007-10-23-KUMAMORI

Chryseは明るいようですが、見にくい位置に行っ
てしまいました。北極雲に大きく穴?があいている
ようです。よろしくお願いたします。

熊森 照明 (Teruaki KUMAMORI 堺 Osaka)

●.....Date: Wed, 26 Sept 2007 14:26:17 +0200
Subject: non title

Hi, Mars from sept. 23 th 2007. Regards

○.....Date: Sun, 14 Oct 2007 19:40:44 +0200
Subject: Mars 2007/10/13 04h19 UT

Hi guys, here some image from 2007/10/13 04h19 UT
Note, mars have change, if you compare it with images
from 2005.

<http://www.astrofotografie.nl/Mars.htm>

http://www.astrofotografie.nl/mars_2007_10_13.htm

○.....Date: Mon, 22 Oct 2007 17:47:19 +0200
Subject: mars 2007/10/22 04h21 UT

Same set-up as usual , Mars 2007/10/22 04h21 UT
<http://www.astrofotografie.nl/Mars.htm>

Kindly Regards

Richard BOSMAN(リシャルト・ボスマン Enschede 荷蘭)

●.....Date: Wed, 26 Sept 2007 22:21:49 +0100
Subject: Mars 20070924

Mars Image under poor to fair seeing conditions.
<http://www.astrosurf.com/pcasquinha/mars070924.jpg>

○.....Date: Tue, 16 Oct 2007 21:29:29 +0100
Subject: RE: Mars 20070924

Thanks for your email. Of course no, It's my pleasure to
have my images uploaded on your website. attached is a
compressed file with all my processed images since that
date, and as soon as I processed the images from 12, 13, 14
and 16 of October I will send them to you also.

My best regards

Paulo CASQUINHA (ハウロ・カスキニャ Portugal 葡)

●.....Date: Wed, 26 Sept 2007 16:34:01 -0400
Subject: Recent Mars Images

Gentlemen, Here are some images from recent observa-
tions:

Mars -July 7, 2007: My feeble first image of Mars this year does reveal a
bit of detail and perhaps shows some signs of the current dust storm.?.
Hard to tell, 6.5 arcsecs is really tiny for an 8".

Mars Sept 23, 2007 - Solis Lacus & Olympus Mons. This set of images
taken Sunday morning, Sept 23. The seeing was highly variable, mostly
poor (3-6/10). Solis Lacus and Mare Sirenum are prominent. Just visible is
Olympus Mons and perhaps Asraeus Mons:

Mars Sept 25, 2007 - Olympus Mons. This set of images was taken under
much better seeing conditions. What a difference good seeing makes.
Olympus Mons is very prominent and to the north some small amount of
Arcadia region detail can be seen just beyond the polar haze. The volca-
noes in the Tharsis Montes area seem to form a curious diagonal line.

○.....Date: Tue, 2 Oct 2007 15:15:30 -0400
Subject: Mars - Sept 30, 2007

Although Mars is still under 10 aresec several features
such as Aurorae Sinus and Protei Regio can be seen in
these images taken on the morning of Sept 30, 2007. Oxia
Palus and further north Niliacus Lacus and the northern
polar haze are also quit distinct. Regards,

Bill DICKINSON(ヒール・チティキンソンGlen Allen VA 美)

●.....Date: Wed, 26 Sept 2007 19:12:46 +0200
Subject: Mars 22 september 2007

Dear Planet observers, Here are my drawings of Mars

from last saturday under relatively good seeing. Weather
has changed since,... and I was also travelling. I also have 8
more drawings to send to the CMO from the previous
weeks... I will try to send them soon.

Otherwise, avoid re-including images, full e-mail,... when
replying to the list unless necessary. Clear Skies,

○.....Date: Mon, 1 Oct 2007 11:16:29 +0200
Subject: Re: Mars 2007 September 30

Dear all Mars observers, I (also) had very good seeing this
Sunday morning. I made 2 drawing and a series of pictures
with compact digital camera behind my Dobsonian 407mm
telescope (no tracking for sure...).

I attach here a stack of 30 1/40 to 1/50s exposures at 200
ISO behind the T407 × 233 scope - which is far from the
nice images I see on the list, some of which (David A.s')
are quite close to the visual sighting.

I also send the second drawing made at the time of sunrise
for which images where quite steady.

All usual features are visible, but Sinus Meridiani is not as
dark as it used to be (Sinus Sabaeus was definitely darker
and the darkest feature that morning) - still dusty, especially
in its Southern part? Argyre was pale yellowish, Mare
Acidalium well seen with a North Polar Hood or Polar Cap
bright and emerging (a brighter patch (NPC?) at the end of
observation around CML 60 seemed to pop-up from the
North). Clear Skies,

Nicolas BIVER (ニコラ・ビヴァール Versailles 法)

●.....Date: Wed, 26 Sept 2007 07:55:47 -0500
Subject: Image 09-26-07

A possible line of dust seen in the s. hemisphere, but it
could very well be an artifact. I hope to process some
more sequences to find out.

<http://marswatch.amaonline.com/09-26-071120.jpg>

○.....Date: Wed, 26 Sept 2007 08:26:14 -0500
Subject: Image: 09-26-07 1110UT

Greetings list, This image was taken 10 minutes earlier
than the last, with a 2X barlow. The previous was taken
with a 3X barlow. It shows the same band in the S. Hemi-
sphere. I don't believe it is an artifact, but this is a new
camera I'm not very used to in regards to imaging Mars.

<http://marswatch.amaonline.com/09-26-071110.jpg>

○.....Date: Wed, 26 Sept 2007 11:15:43 -0500
Subject: Image: Dust! 09-26-07 1010UT

Greetings everyone, This image was taken a hour earlier
than the one showing the line of dust heading south. In this
image, Solis Lacus is closer to the CM and you can tell that
is is partially obscured by dust. Other sequences show the
same.

<http://marswatch.amaonline.com/09-26-071010.jpg>

○.....Date: Fri, 28 Sept 2007 07:19:33 -0500
Subject: Image: 09-28-07 10:30 UT

Greetings list, An image from a few hours ago. Average
seeing, decent detail with Solis Lacus near the CM. De-
tails on the image. The NPH is brighter in Red than it is in
Blue, but I'm imaging with a color camera and not mono-
chrome, so take that for what its worth. Hopefully I'll have
a set showing about 30 minutes worth of rotation later this
afternoon.

<http://marswatch.amaonline.com/09-28-071030.jpg>

○.....Date: Fri, 28 Sept 2007 16:14:18 -0500
Subject: Images: 09-28-07

Greetings everyone, 3 images from this morning showing
15 minutes worth of rotation. Decent detail for condtions
and scope size. You might need to click on the image to
enlarge it to avoid distortion.

<http://marswatch.amaonline.com/09-28-071015.jpg>
<http://marswatch.amaonline.com/09-28-071025.jpg>
<http://marswatch.amaonline.com/09-28-071030.jpg>

○ · · · · · **Date: Wed, 3 Oct 2007 12:05:25 -0500**
Subject: Images: 10-03-07

Greetings list, Two images from this morning. Poor seeing, but detail to be had. The dark ">" shaped area extending from Chryse into Xanthe shows up very well. Is there a name for this feature? The NPH is still jagged/ragged and disrupted, more so in the 10:30 UT image. S. Polar region appears hazy, but I can't be sure.

<http://marswatch.amaonline.com/10-03-071030.jpg>
<http://marswatch.amaonline.com/10-03-071115.jpg>

○ · · · · · **Date: Thu, 4 Oct 2007 05:49:16 -0500**
Subject: Image: 10-04-07 09:05 UT

Greetings list, Rather good seeing. The NPH is quite impressive with a good view of Nilivacus Lacus and Chryse (for an 8 inch scope anyway). I should have some better results at different CMs posted this afternoon.

<http://marswatch.amaonline.com/10-04-070905.jpg>

○ · · · · · **Date: Thu, 4 Oct 2007 14:25:15 -0500**
Subject: Images: 10-04-07

Greetings list, Below are 5 images, a bit under one hour of rotation. You can find all 5 RGB here

<http://marswatch.amaonline.com/10-04-07comp.jpg>

Or each individually, with separate color channels

<http://marswatch.amaonline.com/10-04-070840.jpg>

<http://marswatch.amaonline.com/10-04-070850.jpg>

<http://marswatch.amaonline.com/10-04-070855.jpg>

<http://marswatch.amaonline.com/10-04-070905.jpg>

<http://marswatch.amaonline.com/10-04-070920.jpg>

○ · · · · · **Date: Tue, 9 Oct 2007 10:54:21 -0500**
Subject: Image: 10-09-07 @ 09:25 UT

Greetings list, An image from this morning, 10-09-07. The NPH is disrupted and interesting with a "sky light". Light evening mists in Hellas.

<http://marswatch.amaonline.com/10-09-070925.jpg>

○ · · · · · **Date: Wed, 10 Oct 2007 10:38:18 -0500**
Subject: Image: 10-10-07 09:50UT

Greetings all, The NPH appears more organized and not as disrupted as 24 hours ago.

<http://marswatch.amaonline.com/10-10-070950.jpg>

○ · · · · · **Date: Thu, 11 Oct 2007 13:26:02 -0500**
Subject: Image: 10-11-07 10:35UT

Greetings list, I've taken images of practically the same CM the last 3 days. Chryse was brighter on the AM limb this morning than the previous 2 days, but no obvious signs of dust at this CM.

<http://marswatch.amaonline.com/10-11-071035.jpg>

○ · · · · · **Date: Tue, 16 Oct 2007 16:05:12 -0500**
Subject: Image: 10-16-07 09:05UT

Greetings list, An image from this morning in less than favorable conditions.

<http://marswatch.amaonline.com/10-16-070905.jpg>

○ · · · · · **Date: Sat, 20 Oct 2007 22:55:10 -0500**
Subject: Image: 10-20-07 11:10 UT

Greetings list, Quite a long run of very poor seeing here. About as poor as I've ever had or tried to image in. I was only able to stack 300 frames out 6000 if that tells you anything. The time it took to pick out those 300 made me wonder if the effort was worth it.

This image was taken about 20 minutes after Ed's. The "patchy" NPH in this image matches up with Ed's. One thing I did notice is there is a faint bright spot in Blue over or near Isidis Regio, right on the CM, next to Syrtis Major. That too can be seen in Ed's image (blue). Its faint in both,

but there. I wouldn't of mentioned it if I hadn't seen it in Ed's image too. I believe that region is lower in elevation than the surrounding region. Any thoughts? You might have to have 20/20 vision to see it.

<http://marswatch.amaonline.com/10-20-071110.jpg>

Regards,

Joel WARREN (シ ョ エ ル ・ ウ ォ ー レ ン Amarillo TX 美)

● · · · · · **Date: Sun, 30 Sept 2007 07:44:05 -0700**
Subject: Mars 2007/09/30

Very good seeing for the few minutes I had before the clouds shut me down. Note the "warped" appearance of the NPH.

○ · · · · · **Date: Thu, 4 Oct 2007 06:24:55 -0700**
Subject: RE: Venus : Ashen Light & thermal emission

How are we sure that the effect isn't simply a contrast trick of the mind that fills in the unlit portion of Venus? I'm skeptical myself. Just finished recording a series of UV-IR images this morning. Visually- no ashen light while observing through red, green, and blue filters.

○ · · · · · **Date: Fri, 5 Oct 2007 10:49:59 -0700**
Subject: Mars 5th Oct 2007

Excellent seeing this morning- note the fog over Hellas at the sunset terminator.

Sean WALKER (シ ョ ー ン ・ ウ ォ ー カ ー S&T 美)

● · · · · · **Date: Thu, 27 Sept 2007 19:34:08 +0100**
Subject: Mars images (September 26th, 2007.)

Hi all, Here are some images from Sept 26th. The NPH over Mare Acidalium is extensive. Note the light streak in red light possibly indicating a dust/clouds mixture composing the hood. Argyre looks bright, though this doesn't seem to me to be active dust.

http://www.damianpeach.com/mars07/m2007_09_26rgb_dp.jpg

○ · · · · · **Date: Mon, 1 Oct 2007 13:22:51 +0100**
Subject: Re: Mars 2007 September 30

Hi David [ARDITTI], To my eyes there are no active dust cores across this hemisphere of Mars. The bright areas in Chryse between Indus and Hydaspes has always been bright the last few years at least. The region of Aram again always looks bright, as does Edom. Mars can be deceiving in that the brighter areas in red light may give the impression of dust to the untrained eye but in fact nothing untoward is occurring. These areas may appear a little brighter than normal due to the freshly stirred dust, but nothing looks abnormal to me in the images you obtained. All looks as it did back in late August when I last imaged this hemisphere though the concentration of airborne dust is significantly lower. I also obtained a good sequence that morning and I'll send them later today. Best Wishes

○ · · · · · **Date: Mon, 1 Oct 2007 18:53:02 +0100**
Subject: Mars images (September 30th, 2007.)

Hi all, Here are some images from Sept 30th. Frustrating conditions due to frequent high clouds and numerous contrails. Seeing also variable and worsening near dawn. Its amazing how much this hemisphere has cleared since I last saw it a month ago.

http://www.damianpeach.com/mars07/m2007_09_30rgb_dp.jpg

http://www.damianpeach.com/mars07/m2007_09_30red_dp.jpg

http://www.damianpeach.com/mars07/m2007_09_30blue_dp.jpg

○ · · · · · **Date: Fri, 5 Oct 2007 19:44:26 +0100**
Subject: Mars images (October 5th, 2007.)

Hi all, Here are some images from this morning. Appalling seeing conditions and I almost didn't bother to take anything with Mars "exploding" into a ball of fuzz twice its apparent diameter :-)

Something half decent was salvaged however:

http://www.damianpeach.com/mars07/m2007_10_05rgb_dp.jpg

○ ······ **Date: Mon, 8 Oct 2007 18:42:09 +0100**

Subject: Mars images (October 7th, 2007.)

Hi all, Here are some images from Oct 7th. Again as with the 5th dire seeing most of the time, but apparently enough sharp frames mixed with the rubbish to yeild something worthwhile.

http://www.damianpeach.com/mars07/m2007_10_07rgb_dp.jpg

http://www.damianpeach.com/mars07/m2007_10_07red_dp.jpg

http://www.damianpeach.com/mars07/m2007_10_07blue_dp.jpg

As Dave Tyler mentioned, there is a dark feature corresponding to Astusapis Sinus. Also note a prominent dark patch (absent in 2005) near to where Deltoton Sinus once was. Hellas is bright and featurless. Nodus Alcyonius has returned (it was "absent" last month) most likely due to dust. Best Wishes

○ ······ **Date: Mon, 8 Oct 2007 20:06:53 +0100**

Subject: Mars 2007 Dusty Atmosphere.

Hi all, Here is a set of images from July - Oct showing how the atmospheric dust level has changed across the Syrtis Major hemisphere.

http://www.damianpeach.com/mars07/dust_july_oct07.jpg

Its certainly allot clearer now than it was a even a month ago. Best Wishes

○ ······ **Date: Sat, 20 Oct 2007 20:34:36 +0100**

Subject: Mars images (October 20th, 2007.)

Hi all, Here are some images from this morning. Poor seeing and very poor later on. This was the only set obtained. Further sets of images from previous days in better conditions will follow later.

http://www.damianpeach.com/mars07/m2007_10_20rgb_dp.jpg

Note the interesting markings around Propontis and the small dark spot north of Propontis on the very edge of the NPH. Olympus Mons seen as a dark spot as is Arsia and Pavonis. The Arsia cloud is now weakly active as mentioned by others in recent days. Best Wishes

○ ······ **Date: Sun, 21 Oct 2007 20:40:34 +0100**

Subject: Mars images (October 21st, 2007.)

Hi all, Here are some images from this morning. Seeing was fairly decent for these, but again rapidly worsened again.

http://www.damianpeach.com/mars07/m2007_10_21rgb_dp.jpg

Note the detailed "spiderweb" appearance of Solis Lacus being radically different from its 2005 appearance (see here:)

<http://www.damianpeach.com/mars07/solis2005.jpg>

Tharsis volcanoes are apparent, though less dark away from the terminator. The Arsia cloud is again weakly visible. Best Wishes

○ ······ **Date: Tue, 23 Oct 2007 19:38:35 +0100**

Subject: Mars images (October 18th, 2007.)

Hi all, Here is a rather long set of images from Oct 18th under fair seeing. Lots of interesting details across this hemisphere. Note Elysium Mons seen as a bright spot and also likely Hecates Tholus as well just to the north. Interesting details around and under the NPH. Note in Blue Light the dusky line connecting Hyblaeus with the tip of the "Valhalla" marking. Also note the new extended Hyblaeus extension is seen in Blue light connecting to Tritonis Sinus. Styx-Phlegra is also dark in Blue.

http://www.damianpeach.com/mars07/m2007_10_18rgb01_dp.jpg

http://www.damianpeach.com/mars07/m2007_10_18rgb02_dp.jpg

http://www.damianpeach.com/mars07/m2007_10_18red01_dp.jpg

http://www.damianpeach.com/mars07/m2007_10_18red02_dp.jpg

http://www.damianpeach.com/mars07/m2007_10_18bluegrn_dp.jpg

Best Wishes

Damian PEACH (デミアン・ピーチ Bkh 英)

● ······ **Date: Fri, 28 Sept 2007 15:05:39 -0700**

Subject: Mars September 25, 26 & 27, 2007

Three sets of observations; bad weather today and tomorrow-hope for Sunday. Best Wishes,

○ ······ **Date: Mon, 8 Oct 2007 15:07:54 -0700**

Subject: Mars October 8, 2007

Horrible results for a while, but this morning had some fairly decent seeing for a change. Best Wishes,

○ ······ **Date: Sat, 13 Oct 2007 12:49:11 -0700 From:**

Subject: Mars October 13, 2007

Images from this morning just after the sky clear from rainy weather last few days. Bright spot in NPH; not sure, but may be a bright linear feature moving southward from NPH/Niliacus Lacus; Chryse is a tad bright. Best as always,

○ ······ **Date: Mon, 15 Oct 2007 18:15:44 -0700**

Subject: Mars October 14, 2007

Images from yesterday morning. The fourth and last images were shot in IR and the RGB mono images are of the preceding color image. Best Wishes,

○ ······ **Date: Mon, 22 Oct 2007 21:06:22 -0700**

Subject: Mars October 22, 2007

Video on screen did not look promising, but came out better than I expected. Tomorrow may be good for imaging-may have some more for you ...Best Wishes,

○ ······ **Date: Tue, 23 Oct 2007 19:30:57 -0700**

Subject: Mars October 23, 2007

Interrupted by road maintenance crews on my street so no IR images. Tomorrow looks promising. Best Wishes,

Ed LOMELI (エド・ロメリ Sacramento CA 美)

● ······ **Date: Fri, 28 Sept 2007 15:49:02 -0700**

Subject: Mars 25 September 2007

Hi Masatsugu, Here's Mars on 25 September. In the blue image, note a dark spot just south of the NPH. I hope your feeling well and recovering quickly.

○ ······ **Date: Tue, 02 Oct 2007 07:22:58 -0700**

Subject: 25 September 2007 blue image

Hi Masatsugu, I have some questions about my 25 September 2007 blue image. There is a distinct dark area that appears to be positioned at 195W 42N over the Phlegra Montes in the Propontis Complex. I've attached a zip file with polar projections in red, blue & rgb, and a cylindrical map of the blue image.

Do you have any information or resources that would help me better understand this feature? Is it somehow be associated with NPH? Thanks,

○ ······ **Date: Fri, 05 Oct 2007 13:48:05 -0700**

Subject: Mars 26 September 2007

Hi Masatsugu, Here's Mars in less than favorable conditions on 26 September. I am so sorry to hear of your ongoing health problems. I hope you can force yourself to stay off your feet and get fully rested. The entire Martian community and myself are hoping for your quick and complete recovery.

Many thanks for the detailed description of my B image of the 25th! It appears that the pressure/temperature system had weakened by the next day (26th). The dark area is still at the same location, but it is hard to compare the two B images as the seeing on the 26th was not as good as the preceding day. I read note #6 in CMO 323, and this was very informative. Also, thanks for the link to Morita's image on 2 July 2001. I very much appreciate that you took the time to answer my questions.

It's interesting that you mentioned increasing my image scale in your last email... I already had added spacers to increase my focal length to $F/41$ for the images on the 26th.

○.....**Date: Mon, 08 Oct 2007 18:43:27 -0700**
Subject: Mars 7 October 2007

Hi Masatsugu, Here's Mars on 7 October. The NPH seems quite busy. I hope you are getting rested and feeling better.

○.....**Date: Tue, 16 Oct 2007 09:50:47 -0700**
Subject: Mars 14 October 2007

Hi Masatsugu, Attached is Mars in red on 14 October. The morning fog quickly closed in on me. The shorter wavelengths were out of reach... Best wishes for a quick recovery,

○.....**Date: Wed, 17 Oct 2007 11:09:05 -0700**
Subject: Re: Mars 14 October 2007

Hi Masatsugu, Good news that you are out of the hospital! I hope you are well on your way to a full recovery. Hopefully, you will be lucky with the weather and get a chance to see the Dawes Slit. I'm very happy to have gotten an image of it on the 14th. It was a close call as the morning fog was quite dense. Thanks for pointing it out, I wasn't completely sure if that was the Slit. Thanks also for the link to the forthcoming 2005 (9) article on the NPR.

The jet-stream forecast looks favorable for Monday/Tuesday of next week. So, hopefully I will get some images of the Syrtis Major area. I haven't had a look at it since July. Best Wishes,

Ethan ALLEN (イーサン・アレン Sebastopol CA 美)

●.....**Date: Sun, 30 Sept 2007 12:21:56 -0500**
Subject: Bates image 09/29/2007

Mars now appears larger and redder than nearby Betelgeuse. Seeing conditions above average, with clear, cool skies before dawn. The planet is almost directly overhead now during morning twilight. Solis Lacus visible but without great detail.

○.....**Date: Sat, 13 Oct 2007 22:34:05 -0500**
Subject: Bates image 10/12/2007

Hello: Beautiful weather and seeing conditions for this shot Mars was directly overhead when this image was taken. It's beginning to reveal real detail in the eyepiece. Hope all is well in Japan.

○.....**Date: Sun, 14 Oct 2007 06:47:23 -0500**
Subject: RE: From the CMO/OAA Secretary

I wish a speedy recovery to Dr. Minami. Get well soon!

○.....**Date: Sat, 20 Oct 2007 11:47:34 -0500**
Subject: Bates Mars image - 10/20/2007

Hello: I hope this email finds everyone in good health and good spirits. The fine weather of the fall season has finally come to South Texas! Clear skies, low humidity, and good seeing. Mars was almost 90 degrees overhead when this image was taken earlier this morning.

What a wonderful site! Nestled in the arms of the Gemini Twins, Mars glows like a fine chunk of Topaz. With Orion the Hunter looking on, Mars rules the morning, while brilliant Venus beams her blinding white light in the branches of a dark tree. The morning is calm, no insects buzz, no air-conditioners drown out the sound of a flock of wild ducks that fly unseen toward the south.

The surface of a Mars is beginning to reveal his secrets in the eyepiece: Syrtis Major is a long tongue hanging from the mouth of the Hellas Basin. The North Polar cap is large and white. Mare Cimmerium is a complex of dark intertwining details near the crescent terminator; pointing toward Syrtis Major. Utopia lies as a dark area above the north white pole.

Mars is a world to be explored once more! Best,

Don BATES (ド・ン・ベーツ Houston TX 美)

●.....**Date: Sun, 30 Sept 2007 14:27:42 -0700**
Subject: Mars Images on Sept 28th

Hi Masatsugu, Please see attachments.

○.....**Date: Fri, 19 Oct 2007 12:25:40 -0700 (PDT)**
Subject: Mars Images on Oct 17th

Hi Masatsugu, Please see attached. I'm now using a DBK21FA04.AS camera that looks promising.

Jim MELKA (ジム・メルカ St Louis MO 美)

●.....**Date: Sun, 30 Sept 2007 15:02:00 +0200**
Subject: Re: Venus 2007 September 25 IR

Hi all, David's image with the 807 nm is very stimulating. Theoretically such a filter is able to image the thermal image of the surface of course - in practice, however, the difference of brightness with the sunlit crescent becomes much greater than with the 1 micron filter (as no signal comes from the surface before 950 nm maybe). So during the few seconds necessary to catch the glowing surface, the bright crescent burns the image much quickly. I would nonetheless say at 70 % that the surface is visible on David's image. If so it would be a first.

Regarding the Ashen light, there is certainly no link with the hot surface. No human eye is able to see it (the Sun itself is just almost undetectable through my 1 micron :-)). If anything real does exist in visible light, it will easily be imaged even with low cost color webcams. I think that no accumulation of visual reports will ever be a satisfying evidence... Best wishes

○.....**Date: Sun, 30 Sept 2007 15:10:56 +0200**
Subject: Re: Mars 23 september 2007

Dear Masatsugu, I have been delighted to read about your recovering. I think I would have asked Masami otherwise...

My 2007 season of Mars looks more and more compromised :-// that night as I was about to image the red planet, the RA motor of my EM200 as well began to work only for one direction. I could have worked with a one-direction D motor, but not now. The mount will then go for repairing - normally it should be fixed in France, but I have no idea of how long it will take. I will probably set again the old 7" newtonian if I feel motivated enough (mechanically the telescope is in a bad state), but no good data will come from my side then...

Best wishes and have fun with you own observations !

○.....**Date: Tue, 09 Oct 2007 20:27:46 +0200**
Subject: Re: From the CMO/OAA Secretary

Dear Masami, Please record Masatsugu of my friendship if ever you see him, and wish him good health !

With best wishes

○.....**Date: Tue, 16 Oct 2007 23:47:27 +0200**
Subject: Re: From the CMO/OAA Secretary

Dear Masatsugu, I feel happy to read you again :) Nothing new to report here however. One part of my EM200 has been sent back for repairing (more easy than sending the whole mount !). I'm waiting for a possible quick return. Finally, the weather seems to improve here, with several high-pressures blockings on the past weeks... Best wishes,

○.....**Date: Sun, 21 Oct 2007 14:21:20 +0200**
Subject: Mars, 21th october 2007

Hi all, After more than one month of inactivity mainly due to some problems with my EM200 (now solved) here are my last images of the red planet.

<http://www.astrosurf.com/pellier/M071021-CPE>

Average conditions.

Christophe PELLIER (クリストフ・ペリエ *nr* Paris 法)

●.....Date: *Mon, 1 Oct 2007 19:18:20 +0200*
Subject: *Mars Images 07/29/09*

Hello, I'm a new observer of Mars, and Christophe Pellier tells me to send you my try...

Newton 18cm F7, Powermate x5 @ F53
IR-Block Astronomik, ToUcam 740

Xavier DUPONT (クサウ・ドゥポン・テュポント Saint Roch 法)

●.....Date: *Mon, 1 Oct 2007 22:01:07 +0100*
Subject: *Mars images 30th sept 2007*

Hi Guys, Quite a good session on the morning of the 30th. although the seeing was bubble and jitter, the detail on screen, was really quite nice. Chryse and the following "plains" were very bright indeed and destined to burn out Sinus Meridiani showed a variety of shading. You could also see the overly friendly bright limb artefact laying down its claim on the bright limb, during capture. A most notable feature was the bright spot in the polar hood and also in red light. Not forgetting the very pronounced "line" from Oxia Palus all the way to the polar hood. The processed images didnt really reveal a lot more than was visible on screen. I have included an image with the artefact intact. It is edited out purely for aesthetic reasons, with as little disrruption to science as possible. Any inconcistences across the 8 images shown on the limb in the region of the artefact, is probably down to this editing process, and should be ignored as spurious detail. The rest of the planet is as recorded.

○.....Date: *Fri, 5 Oct 2007 09:42:14 +0100*
Subject: *Mars 5th Oct 2007*

Hi Guys, here is Mars from this morning, the most noticeable feature to me is the very defined Helas basin comparted to 2005. It is a pity the seeing was so poor, I'm sure many other changes would have been easily visible. I fear Mars did tremble greatly. Best wishes

○.....Date: *Sun, 7 Oct 2007 18:51:24 +0100*
Subject: *Mars 7th Oct*

Hi Guys, The dire seeing this morning was punctuated by a few minutes of P3, now and again. This was the nearest to sanity that it got. Best wishes

○.....Date: *Tue, 9 Oct 2007 09:33:20 +0100*
Subject: *changing face of Mars*

Hi Guys, I fear I may have not made myself clear to all. The comparisons are with the 2005 image, the 6th and 7th are there as back up to each other, i.e, to show that the current image markings may be considered "more real" where seen on both current images.

The prime objective was to show the current appearance, compared to how it was in 2005. Best wishes

○.....Date: *Mon, 8 Oct 2007 19:46:41 +0100*
Subject: *Fw: Mars differences*

Hi guys, the commitee has approved this for release, in that it is considered valid. Damian has identifies two feature (in blue) from my original image. Best wishes

○.....Date: *Thu, 11 Oct 2007 15:00:13 +0100*
Subject: *Mars 11th Oct 2007*

Hi Guys, Inspite if a very poor, "candle in the wind" screen image , the type of poor seeing was well handled by registax on one of 6 avis taken over an hour. C14 @ f50 Skynix 2.0M. The 2005 reference image shows some changes caused by the dust storm. Best wishes

○.....Date: *Fri, 12 Oct 2007 21:57:04 +0100*
Subject: *proms from 10th oct 07*

Hi Guys, Here are a couple of feathery proms from the

10th October. 108 inches fl . scope stopped to 4.5" Dia.

○.....Date: *Fri, 19 Oct 2007 21:02:03 +0100*
Subject: *Mars 18 oct 07*

Hi Guys, Here are three images from the 18th. Two Lumenera Skynyx RGB and one from a Lumenera 075 colour CCD. The colour CCD was tried first and caught Olympus Mons at it's sunset time.

I wonder if some of the variation in colour presented by us all, (from day to day), of the the North Polar Cloud , is due to dust "mixing in" with it. The yellow dust possibly tending to "neutralise" any blue appearance? Just a thought.

Best wishes

○.....Date: *Fri, 19 Oct 2007 21:12:08 +0100*
Subject: *Saturn is Back*

Hi Guys, Whilst imaging Mars, our old friend peeped over the rooftops. Smile I said, and took one red image. The seeing was quite good for the 25 degree altiude. It was too dim really, for a meaningful blue. But it was great to see it again. The rings have noticably closed since the last apparition. Best wishes

○.....Date: *Tue, 23 Oct 2007 13:57:04 +0100*
Subject: *Mars 20th Oct*

Hi Guys, Here is a trio of images from the 20th. We have had clear skies since the 18th, so a bit of a processing backlog building up. Seeing has been very variable, but generally fair, with more poor than good. Mars and registax seem to handle it. Solis Lacus is just appearing (or disapearing, depending on which reference you are using), on the left limb. Best wishes

Dave TYLER (デヴァイト・タイラー Bkh 英)

●.....Date: *Wed, 3 Oct 2007 16:44:17 EDT*
Subject: *Re: Venus : Ashen Light and thermal emission*

Dear All: Just to follow up David [ARDITTI]'s very interesting comments below, I would like to add that in fact the Ashen Light has been photographed, well over a decade ago, by a German amateur astronomer. Maybe there are other records, but I do know of at least one reliable example. I am not aware that it has been imaged, but the phenomenon is an irregular one and 2007 is not the best year to look for it.

The last really good crop of sightings in the BAA records was for 1993, and thus 2009 will see a repetition of those favourable circumstances. In comparing the eight-year cycle periods of 1991-98 and 1999-2006, both very well covered by BAA records, it is apparent that the visual Ashen Light was much better seen in the earlier epoch, with several examples of multiple accordances. In some occasions the phenomenon was seen earlier on the same evening with a larger aperture than with a smaller one, as one might expect with a 'threshold brightness' phenomenon. Two forthcoming papers (accepted for publication) will review these observations in the BAA Journal, when each of the two eight-year epochs (corresponding to ten successive elongations each) will be fully described. Another paper in the October BAA Journal will review the Ashen Light work of Henry McEwen (1892-1948) and Patrick Moore (1948-1999), two very long series of observations from very experienced observers based upon my re-examination of all their original notebooks. David's work very usefully helps to establish waveband limits for the thermal emission. It is possible that the Ashen Light is a different phenomenon, and I suppose a majority of people would say they are likely to arise through different physical means. However, there will be an apparent link between them in their appearances, for the

range of dates (offering small enough phase but large enough solar elongation) over which might be reasonably observed by the visual observer and the CCDer will be similar. Such was the case at the 2004 E. elongation.

I am really pleased that so many observers are taking up the infrared imaging work and obtaining excellent results. At the same time, I do not personally doubt the reality of the visual Ashen Light. Like David I have spent many years looking for it, but the number of occasions where I could see Venus as a thin crescent against an adequately dark sky are not numerous, so that in my own work beginning in 1973 I have but one record of the phenomenon, as long ago as the morning elongation of 1981: fortunately there was visual confirmation on that occasion. I do urge the image-takers to remember to look visually as well, (especially) if their cameras show anything unusual.

May I conclude by apologising for my slower than normal acknowledgement of recent work, due to an avalanche of email? With best wishes

Richard McKIM (理查・麥肯 Peterborough 英)
(Director, BAA Mercury & Venus Section)

●.....Date: Thu, 4 Oct 2007 15:20:01 +0900 (JST)
Subject: ご無沙汰しています

南様、ご無沙汰しています。セブに持ち込んだC-14で惑星像が撮れるようになってきました。台風15号が北上し、セブでも夜、少し、晴れ火星が見えています。今朝、薄雲状態で撮影してみました。C-14筒が屋上の風の影響で揺れて像が止まらず、風除けのシートがあれば落ち着くかもしれません。もう少し、改善する余地があります。今週末は晴れて欲しいものです。ではまた

○.....Date: Mon, 8 Oct 2007 11:03:54 +0900 (JST)
Subject: Mars画像 AKM071006

おはようございます。10月6日の画像を添付します。C-14は眼視では良く見えていますが、画像がそれほどでもありません。筒が大きく、筒内気流がある悪影響でしょう。風除け対策と筒内気流対策が必要だと思います。

○.....Date: Tue, 9 Oct 2007 13:30:33 +0900 (JST)
Subject: Mars画像 AKM071008

南様、今朝の火星画像を添付します。セブでのC-14も少しづつ、操作に慣れてきました。火星は天頂から北に上り、導入には疲れます。風と筒内気流に悩まされています。

○.....Date: Thu, 11 Oct 2007 13:34:44 +0900
Subject: Mars画像 AKM071010

こんにちは、今朝の画像を添付します。DMK画像ファイルが読めず、たまたま撮ったToUcam画像だけです。気流は少しずつ良くなって来ています。

○.....Date: Mon, 15 Oct 2007 14:19:08 +0900
Subject: Mars、Venus画像

こんにちは、先週末の火星と金星画像です。気流は良いものの屋上の風のの影響で筒がブレて像が止まらず困っています。

○.....Date: Mon, 15 Oct 2007 18:09:48 +0900
Subject: Saturn 071012

こんばんわ、先週、朝方土星を観望しました、環の傾きが随分小さくなり、全体が小さく感じました。カッシニの空隙、C環は良く見えていました。土星はC-14クラスの口径が良く見えます。

○.....Date: Mon, 22 Oct 2007 15:34:01 +0900 (JST)
Subject: Mars画像 071020 071021

こんにちは、先週末からの火星画像です。気流と風のない好条件でイメージが向上してきました。北極

地方の白雲が場所によって透けています。

阿久津 富夫(Tomio AKUTSU セブThe Philippines)

●.....Date: Sat, 06 Oct 2007 11:53:35 +0100
Subject: Mars 06-Oct-2007

Hi All, Reasonable seeing again this morning, Syrtis Major nicely displayed.
<http://tinyurl.com/yp826n>

Also, apologies for assaulting your colour senses yesterday with a rather pink Mars! - here is a replacement after further coaching from Dave Tyler.

<http://tinyurl.com/2fm9hx>

○.....Date: Sun, 07 Oct 2007 10:37:56 +0100
Subject: Mars 07-Oct-2007 CM=270

Hi all, Another nice morning here in the South of England, fair to good seeing. The N. Polar Hood looked less prominent to me today.

<http://tinyurl.com/3xryv3>

○.....Date: Thu, 11 Oct 2007 10:54:33 +0100
Subject: Mars 11-Oct-2007 with good seeing

Hi All, Good high-pressure seeing this morning, plenty of fog and dew around. Just caught Syrtis Major on the limb.
<http://tinyurl.com/37pwnn> Regards

Ian SHARP (イアン・シャープ WS 英)

●.....Date: Tue, 09 Oct 2007 22:58:19 +0900
Subject: お見舞い

南様：村上さんからのメール拝読いたしました。herpes zoster = 帯状疱疹 くらいは辞書で分かりましたが、それで入院というのはよほどのことだろうと推測しております。

近日中に火星の撮像に復帰する予定ですので、よろしくお願ひいたします。

どうぞお大事に。無理をされないように。

PS: NHKの「ちりとてちん」の小浜弁はおかしくないですか？

○.....Date: Wed, 17 Oct 2007 23:17:46 +0900
Subject: Re: お見舞い

>お陰様で昨日退院しました。

退院おめでとうございます。

>PS:『火星通信』#336着きましたか？ 中島氏と西田氏の二人が印刷>丁合発送をしてくれました。前号#335も私は入院中でお二人でした。

昨日、届きました。仕事で帰るのが遅かったので、何時ころかは判明しませんが、クロネコ便でいただきました。いつもいつも、ありがとうございます。

○.....Date: Mon, 22 Oct 2007 11:11:48 +0900
Subject: 10月21日の画像

今朝、今シーズン初めて火星を撮像しました。光軸がやや甘いようですが、なんとか模様は映りました。あまりペースは上がらないと思いますが、よろしくお願ひいたします。

浅田 正 (Tadashi ASADA 宗像 Fukuoka)

●.....Date: Tue, 9 Oct 2007 22:00:22 +0800
Subject: Re: From the CMO/OAA Secretary

村上昌己様、南さんがヘルペスで入院されたとのこと、一日も早くご健康を回復されるよう、お見舞い申します。背骨の病気もあることで、お大事に療養なさるよう、願っております。衰えました。・・では、村上さんお元気で。敬具

○.....Date: Thu, 18 Oct 2007 12:29:30 +0800
Subject: Re: Re: From the CMO/OAA Secretary

南 政次様、退院おめでとうございます。

翻訳の件、やってみましょう。・・

頼 武揚 (W.-Y. LAI 臺北 Taiwan)

●.....Date: Wed, 10 Oct 2007 17:40:40 -0500
Subject: Re: From the CMO/OAA Secretary

Dear Murakami-san, Please pass along my regards to My dear friend Minami-san, and best wishes for a prompt and full recovery. With best wishes,

○.....Date: Mon, 22 Oct 2007 20:38:38 -0500
Subject: Re: RE:Fw: fox possession or dissociative diso

Dear Masatsugu, You are very kind to respond after such a long time, and in so much detail, to my queries about fox possession. I have learned much from your response--and marvel, as always, at the deep learning that you display on so many subjects. I shall send your message along to my physician colleague in Tokyo, who will no doubt read it with much edification--he too knew little about the phenomenon of fox possession, which seems to be so very rare and is now close to being extinct altogether. It has survivals only among the very remote and backward people--rather like our hysteria (once, in medical training, I was asked to consult on a patient, a young girl, who had suddenly become blind. I did manage to cure her through suggestion--hypnosis--and felt quite grand in my powers of healing!).

I was very distressed to hear of your spinal disc herniation, but not surprised at the report, in CMO no. 336 which is just received, that as soon as you were out of hospital you were already at your beloved telescope at Fukui City Observatory, since Mars was in view and there was dust storm activity underway. I hope that the spinal disc herniation is no longer a source of pain or discomfort and that you are returned to full strength.

I have been too busy with professional work--in fact, I just put the finishing touches to a large report on the problem of traumatic brain injury affecting troops in Iraq, which was a huge project draining much of my time and energy during the month of October. There has been too little time for astronomy.

I have, however, been admiring Venus, so brilliant in the morning sky, and enjoying the evocative Red One which stands nearly overhead these mornings before dawn in Gemini. Indeed, I am in the latter stages of inaugurating my small observatory, which I hope to use, possibly by the end of this week, for some maiden planetary images. The inspiration for the CCD-imaging endeavour is twofold: I am no longer satisfied with my abilities for visual observation--my

eyesight is no longer quite good enough--but also I have been inspired by Sean Walker's very fine UV images of Venus in *Sky & Telescope*. I have resolved to try to emulate him.

I am very pleased to learn the information from Francis Oger about the meeting that is now planned--most fittingly--for September 2009, at Meudon, and the tantalizing comment by D. Crussaie that the Grand Lunette may even be useable at that time! I am looking forward with particular enthusiasm to this meeting, and I think a group of 50 or so would be just right for the occasion.

Personally, I am eager to mark the centennial of the magnificent September 20, 1909 observation by Antoniadi which did so much to disentangle the cobwebs of Mars, but I would also be glad to present my views of Barnard's work. Meanwhile, I agree that the subject of the amateur observers who have contributed to the study of Mars is a splendid and rather vast topic--and if Richard McKim is able to come over, we may be able to rejuvenate our long-contemplated "Men of Mars" project. We must all agree that Saheki would deserve a high place on the short list, and that reminds me of how much I still cherish the occasion of my meeting the very cordial and hospitable Saheki family during that memorable time we spent together in 2004. With best wishes,

Bill SHEEHAN (ウイリアム・シーハン MN 美)

●.....Date: Sun, 14 Oct 2007 22:17:33 +0900
Subject: Mo 06 11Oct_07

やっと06、11日の画像処理ができました。最近はやつと曇りが多くなかなか予定時刻に撮れません。その上seeingも悪く四苦八苦です。南さんの具合はどうですか？少しは良くなりましたか。

森田 行雄 (Yukio MORITA 廿日市 Hiroshima)

●.....Date: Tue, 16 Oct 2007 03:06:07 +0200
Subject: mars 14.10.07

Dear Masatsugu, here my first Mars this year. It was the first morning without clouds/fog... Mars was captured through the turbulances of house heating... best wishes

Silvia KOWOLLIK

(シルヴィア・コワリク Ludwigsburg 德)

☆☆☆

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

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Edited by: **Masatsugu MINAMI, Masami MURAKAMI, Takashi NAKAJIMA,**

Akinori NISHITA and Hitomi TSUNEMACHI

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☆ Any e-mail to CMO is acknowledged if addressed to

cmo@mars.dti.ne.jp (Masami MURAKAMI at Fujisawa)

vzv03210@nifty.com (Masatsugu MINAMI at Mikuni-Sakai)

☆ Usual mails to CMO are acknowledged if addressed to

Dr Masatsugu MINAMI, 3-6-74 Midori-ga-Oka, Mikuni, Sakai City, Fukui, 913-0048 JAPAN

☎ 913-0048 福井県坂井市三國町緑ヶ丘3丁目6-74 南 政次 (☎/FAX 0776-82-6222)

