

MARS

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OBSERVATIONS

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T The present report treats the observations made during the one-month period from 16 August 2005 ($\lambda=270^\circ\text{Ls}$) to 15 September 2005 ($\lambda=289^\circ\text{Ls}$). The apparent diameter has grown enough, so that from the next time we shall treat the observations made during a fortnight period. The diameter δ increased from 12.5" to 15.9" during the period. The central latitude ϕ went up from 15°S to 11°S , and such northern markings as M Acidalium have began to show us its face more largely. The phase angle ι went down from 45° to 38° . The altitude of the planet seen from the northern hemisphere has become quite higher since its apparent declination went up from 12°N to 15.6°N during this period. So we have got a lot of good images from Europe.

♂.....今回は16Aug2005($\lambda=270^\circ\text{Ls}$)から15Sept($\lambda=289^\circ\text{Ls}$)の一月を扱う。視直径も大きくなり観測も多くなったので、次回からは半月毎の報告としたい。 δ はこの期間12.5"から15.9"に急速に伸びた。 ϕ は 15°S から 11°S となり、マレ・アキダリウムなど北邊の様相が大きくなり見やすくなった。位相角も 45° から 38° へと落ちた。高度は視赤緯が 12°N から 15.6°N まで昇り、北半球からは有利になっている。その所為か、高緯度のイギリスなどでも好い像が出ている。筆者も既にスケッチ画を5.5cmに上げた。

♂.....Several observers joined newly. Previously there contributed more than 40 observers, while this time a bit many more. The contributions from Europe and the USA are so numerous, while the Japanese contributions are at a low ebb after the great 2003 apparition: Just Kenkichi YUNOKI (*Yn*)'s activity exceeds any.

♂.....報告観測者は増えていると思う。前回40名を越えたが、今回は休業者もいるが全体としては少し伸びている。資料を得る点でDPk氏やDpc氏、CPI氏やDTy氏の活躍の他、アメリカ、イギリスがシッカリしているのは有り難い。日本は全体として調子が出ないが、Yn氏の活躍を多としたい。

ADELAAR, Jan ヤン・アデラル (JAd) 荷蘭 Arnhem, Nederland

9 CCD Images (18, 23, 29, 31 August; 7*, 13* September 2005)

$f/48 \otimes 18\text{cm}$ Mak-Cass $\rightarrow f/40 \otimes 23\text{cm}$ SCT* with a ToUcam

ALDERWEIRELDT, Tom トム・アルデルヴァイレルト (TAI) 's-Gravenwezel, Belgium

1 CCD Image (4 September 2005) $f/33 \otimes 35\text{cm}$ SCT with ToUcam pro

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

10 CCD Images (16, 20, 22, 25, 26, 27 31 August; 1, 15 September 2005)

$f/44,56 \otimes 40\text{cm}$ spec with a ToUcam 740

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

12 CCD Images (29, 30 August; 7, 9, 13 September 2005)

$f/50 \otimes 25\text{cm}$ Dall-Kirkham with ToUcam, ATk-1HS II

ASADA, Tadashi 淺田 正 (As) 福岡・宗像 Munakata, Fukuoka, Japan

10 Colour CCD Images + 2 IR, 2 B iamges (16 August; 1, 2, 12 September 2005)

30cm SCT with a Panasonic MX5000, ST-5C

- BATES, Donald R** ドン・ベーツ (*DBt*) 徳克薩斯 Houston, TX, USA
2 CCD Images (21 August; 5 September 2005) $f/18,27 \otimes 25\text{cm}$ spec with a ToUcam
- BIVER, Nicolas** ニコラ・ビヴェール (*NBv*) 凡爾賽 Versailles, Yvelines, France
4 Colour Drawing (31 August; 2, 4, 11 September 2005) 700×41cm speculum
- BOLZONI, Simone** スイモーネ・ボルツォーニ (*SBI*) 義大利 Busto Arsizio, Italia
6 CCD Images (25, 30 August; 3, 6, 13, 15 September 2005) 20cm SCT with ToUcam
- BOSMAN, Richard** リシャルト・ボズマン(*RBs*) 荷蘭 Enshed, Nederland
8 CCD Images (17, 24 August; 5, 7* September) 28cm SCT with ATK-2HS, ToUcam Pro*
- BUDA, Stefan** ステイーファン・ブダ (*SBd*) 墨爾本 Melbourne, Australia
7 CCD Images (16, 21, 26, 31 August; 4, 5, 15 September 2005)
 $f/30, 35 \otimes 40\text{cm}$ Dall-Kirkham with a ToUcam
- BUNGE, Robert** ボブ・バンジ (*RBg*) 馬里蘭 Bowie, MD, USA
9 Drawings (18, 21, 24, 29 August; 2, 4, 8, 9, 12 September 2005)
260, 480×43cm $F/7.8$ spec
- CHAVEZ, Rolando** ロランド・チャヴェス (*RCv*) Powder Springs, GA, USA
15 CCD Images (17, 20, 21 August; 3, 5*, 9, 11 September 2005)
 $f/38, 50, 62 \otimes 25\text{cm}$ $F/12.5$ Maksutov/ 31cm Cave Spec* with a ToUcam
- COLVILLE, Brian** ブライアン・コルヴィル (*BCI*) 安大略湖 Ontario, Canada
3 Sets of CCD images (3, 5 September 2005)
 $f/37,47 \otimes 30\text{cm}$ SCT with ATK-1HS, ToUcam
- DICKINSON, William H** ビル・ディキンソン (*WDc*) Glen Allen, VA, USA
10 Colour CCD Images + 9 IR/R Images (18, 21, 24, 28 August;
1, 5, 9, 11, 12 September 2005) $f/25, 50 \otimes 20\text{cm}$ SCT with a ToUcam Pro II
- GORCZYNSKY, Peter** ピータ・ゴルチンスキイ (*PGc*) Oxford, CT, USA
1 CCD Image (14 September 2005) 18cm Mak-Cass with a ToUcam
- GRAFTON, Edward A** エド・グラフトン (*EGf*) 徳克薩斯 Houston, TX, USA
15 Sets of CCD Images + 2 RGB Sets (17, 18, 20, ~24, 31 August;
5, 8, 9, 10, 13, 14 September 2005) $f/39 \otimes 35\text{cm}$ SCT with an ST402
- HEFFNER, Robert** ロバート・ヘフナー (*RHf*) 名古屋 Nagoya, Aichi, Japan
5 CCD Images (18, 19, 26 August; 3, 13 September 2005)
 $f/30 \otimes 28\text{cm}$ SCT with Lu075M (Lumenera)
- HERNANDEZ, Carlos E** カルロス・ヘルナンデス (*CHr*) 佛羅里達 Miami, FL, USA
2 Sets of Colour Drawings (21 August; 14 September 2005)
250, 340, 390×23cm $F/13.5$ Maksutov-Cass
- HIDALGO TORTOSA, Emilio** エミリオ・ヒダルゴ (*EHd*) 西班牙 La Carolina, Jaén, España
11 Sets of IR+B Images (16, 18, 19, 27, ~30 August; 2 September 2003)
 $f/50 \otimes 30\text{cm}$ Dall-Kirkham, ToUcam ICX424
- KARRER, Michael** ミハエル・カッレル (*MKr*) 奧地利 St Radegund, Österreich
7 CCD Images (20, 30 August; 1, 2, 6*, 8, 14 September 2005)
18cm Meade Refraktor/ $f/22 \otimes 44\text{cm}$ spec* with a ToUcam
- KOWOLLIK, Silvia** シルヴィー・コヴォリク(*SKw*) 薩斯圖加特 Stuttgart, Deutschland
10 CCD Images (17, 19 August 2005) 18cm Starfire Refraktor with ToUcam 740
- MASSÓ MILLEURO, Félix** フェリックス・マツソ (*FMr*) 西班牙 La Coruña, Galicia, España
1 CCD Image (15 September 2005) 21cm Dall-Kirkham with Quickcam 3000
- MELILLO, Frank J** フランク・メリッロ (*FMI*) 紐約 Holtsville, NY, USA

- 8 CCD Images (28 August; 2, 4, 10, 11 September 2005)
 $f/20 \otimes 20\text{cm}$ SCT with a Starlight Xpress MX5 + ToUcam
- MINAMI, Masatsugu 南 政次 (Mn)** 福井 Fukui, Fukui, Japan
 123 Drawings (16, ~20, 23, 27, ~29, 31 August; 1, 3, 8, 9, 11, 12, 15 September 2005)
 400, 480, 600×20cm GOTO ED refractor*
 * Fukui City Observatory 福井市自然史博物館屋上天文臺
- MOORE, David M デヴィッド・ムーア (DMr)** 亞利桑那 Phoenix, AZ, USA
 13 Sets of CCD Images (16, 18, 21, 24, 29, 31 August; 13 September 2005)
 $f/37 \otimes 25\text{cm}$ speculum with ATK-IHS
- MORITA, Yukio 森田 行雄 (Mo)** 廿日市 Hatsuka-ichi, Hiroshima, Japan
 12 Sets of RGB Images + 7 IR Images
 (28, 29 August; 1, 11, 14, 15 September 2005) 25cm spec with an ST-5C
- MURAKAMI, Masami 村上 昌己 (Mk)** 藤澤 Fujisawa, Kanagawa, Japan
 10 Drawings (17, 19 August; 10 September 2005) 320, 400×20cm speculum
- NAKAJIMA, Takashi 中島 孝 (Nj)** 福井 Fukui, Fukui, Japan
 32 Drawings (18, 20, 31 August; 2, 13 September 2005)
 400, 480, 600×20cm GOTO ED refractor*
 * Fukui City Observatory 福井市自然史博物館屋上天文臺
- NARITA, Hiroshi 成田 廣 (Nr)** 川崎 Kawasaki, Kanagawa, Japan
 23 Drawings (16, 20, 21, 31 August; 2, 3, 10, 12, 13 September 2005) 400×20cm refra
- NIKOLAI, André アンドレ・ニコライ (ANk)** 德國 Remshalden, Deutschland
 1 CCD Image (6 September 2005) 10cm Zeiss AS Refraktor with ToUcam Pro
- OKANO, Kunihiko 岡野 邦彦 (Ok)** 東京 Setagaya, Tokyo, Japan
 1 Set of CCD Images (3 September 2005) 31cm $F/5$ spec with an ST-402XME
- OWENS, Larry ラリー・オーエンス (LOW)** Alpharetta, GA, USA
 5 CCD Images (16, 19, 20, 26, 28 August 2005) $f/36 \otimes 35\text{cm}$ SCT with a ToUcam Pro
- PARKER, Donald C ドン・パーカー (DPk)** 佛羅里達 Miami, FL, USA
 30 Sets of CCD Images (17, 20, 23, 30 August; 4, 7, 9, 12, ~14 September 2005)
 $f/55 \otimes 41\text{cm}$ $F/6$ spec equipped with an ST9XE
- PEACH, Damian A デミアン・ピーチ (DPe)** 英國 Loudwater, Buckinghamshire, UK
 35 Sets of CCD Images (16, ~18, 23, 24, 28, ~30 August;
 2, 3, 7, 9, 10, 13, 14 September 2005) $f/40 \otimes 35\text{cm}$ SCT with Lu075
- PELLIER, Christophe クリストフ・ペリエ (CPI)** 法國 Noisy-le-Grand, France
 18 Sets of CCD Images +10 IR + 5 B Images
 (16*, 17, 18, 26, 29, 30, 31 August; 8*, 13* September 2005)
 $f/46, 53, 66, 69, 80 \otimes 21\text{cm}$ Mewlon with ToUcam II*/Lu075M
- ROEL SCHREURS, Eric エリック・ロエル (ERl)** 墨西哥 Mexico
 1 Red Image (19 August 2005) 25cm Maksutov with Lu075M
- ROSOLINA, Michael マイケル・ロゾリーナ (MRs)** 西維吉尼亞 Friars, WV, USA
 3 Colour Drawings (12 August; 4, 12 September 2005) 250, 340, 420×20cm SCT
- San EMETERIO SANTOS, Francisco (FEm) フランシスコ・サン・エメテリオ** Labastida, España
 3 CCD Images (29 August; 4 September 2005) 18cm Mak ATik 1C
- SÁNCHEZ, Jesús R ヘスス・サンチェス (JSc)** 科爾多瓦 Córdoba, España
 10 CCD Images +1 light R Image (29, 30, 31 August; 1, 8, 9, 12 September 2005)
 28cm SCT with a ToUcam
- SHERROD, P Clay クレイ・シャロド (CSr)** 阿肯色 Aso Sky Observatory, AR, USA

21 CCD images (18, 19, 22, 25, 26, 31 August; 1,~4, 7,~11 September 2005)
 $f/32 \otimes 40\text{cm}$ RC with a ToUcam Pro

TATUM, Randy ランディ・テータム (*RTm*) 維吉尼亞 Richmond, VA, USA

9 CCD Images (18, 21, 25, 29 August; 2, 6, 8, 10, 13 September 2005)
 25 cm spec with a ToUcam

TEICHERT, Gérard ジェラルド・タイシェルト (*GTc*) 法國 Hattstatt, France

5 Drawings (17, 28, 30 August; 5, 7 September 2005) 330, 350×28cm SCT

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

14 Sets of CCD Images + 1 *IR* + 6 *B* Images (16, ~18, 23, 24, 28, 29 August;
 7, 9, 14 September 2005) $f/46 \otimes 28\text{cm}$ SCT with ToUcam 840

VALIMBERTI, Maurice モーリス・ヴァリムベルティ (*MVI*) 墨爾本 Melbourne, Australia

3 CCD Images (26 August; 5 September 2005) $f/27 \otimes 35\text{cm}$ SCT with a ToUcam

VANDEBERGH, Ralf ラルフ・ファンデベルフ (*RVb*) 荷蘭 Nederland

12 CCD Images + 3 *R* + 1 *B* Images (19, 23, 24, 28*, 29, 30* August;
 1*, 3, 4*, 7, 8*, 13 September 2005) 25cm spc with ATK-1HS/ToUcam 740*

Van Der VELDEN, Erwin アーウィン・ヴァン・デア・ヴェルデン (*EVI*) Brisbane, Australia

3 CCD Images (9, 14 September 2005) $f/35 \otimes 23\text{cm}$ SCT with a Vesta Pro modified

WALKER, Sean ショーン・ウォーカー (*SWk*) Methuen, Ma, USA

13 CCD Images (16, 18, 23, 25, 26 August; 7, 10, 14 September 2005)
 18cm Maksutov-Newtonian with a ToUcam/Canon Powershot A-85

WASIUTA, Mylon E マイロン・ワシュータ (*MWs*) Spotsylvania, VA, USA

8 Sets of CCD Images (18, 21, 25, 26 August 2005) 20cm SCT with ATK-1HS

WILLIAMSON, Thomas E トマス・ウィリアムソン (*TWs*) Albuquerque, NM, USA

5 Sets of CCD Images (17, 21, 26 August; 9 September 2005)
 $f/50 \otimes 20\text{cm}$ spec with a ToUcam Pro

YUNOKI, Kenkichi 柚木 健吉 (*Yn*) 堺 Sakai, Osaka, Japan

101 Sets of CCD *RGB* Images + 4 ToUcam Images + 5 *R* + 4 *B* Images
 (18,~20, 27, ~29, 31 August; 1, ~3, 7, ~15 September 2005)
 20cm spec with ATK-1HS II & ToUcam

♂.....**The SPC and Its Surroundings:** The spc was small but clearly and sharply seen even at the end of this period (at $\lambda=289^\circ\text{Ls}$). So first about the surroundings: **a)** The ccd images of Larry OWENS (*LOW*) on 16 Aug ($\lambda=270^\circ\text{Ls}$) at $\omega=327^\circ\text{W}$, 19 Aug ($\lambda=272^\circ\text{Ls}$) at $\omega=296^\circ\text{W}$, and 20 Aug ($\lambda=272^\circ\text{Ls}$) at $\omega=298^\circ\text{W}$, as well as GRAFTON (*EGf*)'s on 18 Aug ($\lambda=271^\circ\text{Ls}$) at $\omega=336^\circ\text{W}$, and on 20 Aug ($\lambda=272^\circ\text{Ls}$) at $\omega=313^\circ\text{W}$ otherwise show that there possibly existed a *white* remnant of Novus Mons until around $\lambda=272^\circ\text{Ls}$, if not *LOW*'s *B* images have received the *IR* leakage. The fine area where Novus Mons remained is lit in several images even after the above dead line, but it can be thought that the area is covered by fallout of the bright dust. See for instance PELLIER (*CPI*)'s set of images made on 13 Sept ($\lambda=287^\circ\text{Ls}$) at $\omega=330^\circ\text{W}$ and 336°W where the area is seen in *R* but not in *B*. **b)** Another conspicuous phenomenon at the circumpolar region has occurred at the part where the spc ice had melted away earlier which was watched from around $\omega=200^\circ\text{W}$: As seen from ADELAAR (*JAd*)'s image on 18 Aug ($\lambda=271^\circ\text{Ls}$) at $\omega=200^\circ\text{W}$ as well as from TYLER (*DTy*)'s $\omega=209^\circ\text{W}$, this area has been faded and light. The images of *LOW* on 28 Aug ($\lambda=277^\circ\text{Ls}$) at $\omega=215^\circ\text{W}$, and of *EGf* on 31 Aug ($\lambda=279^\circ\text{Ls}$) at $\omega=202^\circ\text{W}$ however suggest the area, still light, was stable and was now free from a serious atmospheric disturbance. **c)** Concerning this, as seen typically from *LOW*'s image on 20 Aug ($\lambda=272^\circ\text{Ls}$) at $\omega=298^\circ\text{W}$, we should notify the rather large circumpolar region including the small spc looks sometimes like a Pope's cap (this time the small spc is just the top of the cap), while the aspect seen on *EGf*'s image on the following 21 Aug ($\lambda=273^\circ\text{Ls}$) at $\omega=298^\circ\text{W}$ looks slightly different.

OKANO (*Ok*)'s RGB composite image on 3 Sept ($\lambda=281^\circ\text{Ls}$) at $\omega=279^\circ\text{W}$ again shows the Pope cap. On the other hand the present writer observed these angles visually from the end of August to the beginning of September, but this Pope's cap was not so explicit to the eyes. OKANO (*Ok*) communicated that this might depend on the different choice of the sensibilities of R (IR), G and B ingredients of ccd cameras compared with the naked eyes (*LtE*). **d**) Incidentally we note the spc depicted by *Ok* is without dark perimeter and looks quite akin to the image caught by the naked eye though the cap itself appears visually clearer and brighter. Sometimes the usual ccd images of the spc look enhanced to have a dark boundary. In this point the two images by WALKER (*SWk*) at $\omega=298^\circ\text{W}$ and $\omega=332^\circ\text{W}$, respectively differently taken and processed, may be suggestive: The spc on the latter image looks like *Ok*'s spc. **e**) As to the further division of the spc in the previous 2003 case, we reviewed the images of *DPk* and *DPc* in CMO #282 Report #17 (*DPc*'s case of the spc was given on 23 October 2003 ($\lambda=285^\circ\text{Ls}$) at $\omega=101^\circ\text{W}$. -- We also picked out the spc case of E E BARNARD made in 1894 at $\lambda=296^\circ\text{Ls}$). The division may be foreseen on HEFFNER (*RHf*)'s image on 18 Aug ($\lambda=272^\circ\text{Ls}$) at $\omega=090^\circ\text{W}$. This was then clearly shown on the R images by *DPk* made on 7 Sept ($\lambda=284^\circ\text{Ls}$) at $\omega=091^\circ\text{W}\sim 105^\circ\text{W}$.

The Tharsis District: An excellent description of the complex region around the Tharsis ridges as well as Olympus Mons was given by *RHf* on the images made on 18 Aug ($\lambda=271^\circ\text{Ls}$, $\delta=12.8''$, $\iota=43^\circ$) at $\omega=097^\circ\text{W}$ and on 19 Aug ($\lambda=272^\circ\text{Ls}$) at $\omega=090^\circ\text{W}$. Fortunately at this period the deep ι and the grown diameter were well combined: Possibly the net of the dark brownish spots and streaks was present because of the big ι (that is, made of shadows caused by the declined sunbeam). They especially show the complicated topography around Arsia Mons. Turning to Europe, the network appeared more clearly on PEACH (*DPc*)'s images made on 29 Aug ($\lambda=278^\circ\text{Ls}$, $\delta=13.8''$, $\iota=43^\circ$) at $\omega=099^\circ\text{W}$ and so on. Then the area was shot as follows: on 1 Sept ($\lambda=280^\circ\text{Ls}$) by KARRER (*MKr*) at $\omega=062^\circ\text{W}$, by SÁNCHEZ (*JSc*) at $\omega=101^\circ\text{W}$, on 5 Sept ($\lambda=282^\circ\text{Ls}$) by BATES (*DBt*) at $\omega=125^\circ\text{W}$, by COLVILLE (*BCI*) at $\omega=129^\circ\text{W}$, on 7 Sept ($\lambda=284^\circ\text{Ls}$) by *DPk* at $\omega=091^\circ\text{W}$, on 8 Sept ($\lambda=284^\circ\text{Ls}$) by TATUM (*RTm*) at $\omega=099^\circ\text{W}$, by *EGf* at $\omega=130^\circ\text{W}$, on 9 Sept ($\lambda=285^\circ\text{Ls}$, $\iota=40^\circ$) by DICKINSON (*WDs*) at $\omega=094^\circ\text{W}$, by *EGf* at $\omega=109^\circ\text{W}$ and so on, while we feel the images look to have been made the more enhanced as the less became the phase angle ι .

Arsia Cloud: As described previously, there is no cloud associated with Olympus Mons at this season, while the area of Arsia Mons shows the presence of roll white clouds, and since the second peak was near, the observations to reveal the clouds were made many. The first excellent work was obtained by *CPl* on 26 Aug ($\lambda=276^\circ\text{Ls}$) at $\omega=113^\circ$ and 128°W , excellent because these proved the butterfly-like shape of the cloud (as far as we know for the first time, though known before by MGS-MOC). Since $\iota=44^\circ$, Arsia Mons in the latter case was located about two and a half hrs before sunset because $90-44-(128-120)=38^\circ$. This butterfly cloud was also caught by *DPc* on 28 Aug ($\lambda=277^\circ\text{Ls}$) at $\omega=119^\circ\text{W}\sim 137^\circ\text{W}$, as well as on 29 Aug ($\lambda=278^\circ\text{Ls}$) by *DPc* at $\omega=121^\circ\text{W(B)}$, by *DTy* at $\omega=139^\circ\text{W(B)}$, on 30 Aug ($\lambda=279^\circ\text{Ls}$) by *CPl* at $\omega=132^\circ\text{W(B)}$, by HIDALGO (*EHD*) at $\omega=124^\circ\text{W(B)}$, 141°W(B) and so on. Observations of the Arsia cloud were obtained a lot this time, but here we postpone the review to a later Note. It is known the Olympus cloud is stable, while the Arsia cloud is variable and fluctuates; and hence it is desirable to observe it *every day at the same angle under the same condition*, more desirable than making animation on a single day. Later the present writer (*Mn*) watched the cloud long on 12 Sept ($\lambda=287^\circ\text{Ls}$), and on 15 Sept: The cloud was clearly seen up until the sunset as taken by *Mo* and YUNOKI (*Yn*) on 15 Sept ($\lambda=289^\circ\text{Ls}$). This season the condensate mist is seen over the terminator side of the southern hemisphere, and especially thicker at the Arsia district.

Diffused Reflection from the Hellas Inside Wall: **a)** Frank MELLILO (*FMI*) made a symbolic shot on 28 Aug ($\lambda=277^\circ\text{Ls}$, $\iota=43^\circ$) at $\omega=236^\circ\text{W}$: That is it is comparable with his image made on 21 July ($\lambda=242^\circ\text{Ls}$, $\iota=47^\circ$) at $\omega=230^\circ\text{W}$. Both show similarly Hellas to be very bright near the morning limb. This latter one was one of the very images that shot out the bright Hellas, and it was said the brightness was due to the dust aloft. It is however very apparent that any dust lifting could have never remained at the same place for more than one month. As to this bright-

ness we suggested taking account of the irregular reflections from the inside wall of the Hellas basin in the preceding issue (#308 s2-p0151). We should also take account of the following statistical fact: Inside the Hellas basin the so-called dust devils occur quite frequently from around $\lambda=270^\circ\text{Ls}$ to 360°Ls (R GREELEY et al, *Mars: Dust Devil Tracks in Hellas Basin and Argyre Planitia*, LPS XXXIV (2003) <http://www.lpi.usra.edu/meetings/lpsc2003/pdf/1769.pdf>), and so the inside must have looked more yellowish this period. The above statistics also say that the occurrence is mostly limited to the part of bottom which lies 7km to 4km deep, and hence the accumulated dust remains atmospherically high-pressed. According to *Mn's* observations at the end of August 1973, Hellas was similarly bright near the limb at $\lambda=269^\circ\text{Ls}$, $\tau=40^\circ$; and as it rotated more inside the fine structure as Zea L was visible, and so the situation was quite similar. **b)** This time already on 16 Aug ($\lambda=270^\circ\text{Ls}$, $\tau=45^\circ$) several good images were secured in Europe: Hellas at the limb was shown similarly bright but definitely off-white by *DPc* at $\omega=233^\circ\text{W}$. Immediately after, *DTy* and *CPl* produced images respectively at $\omega=239^\circ\text{W}$ and $\omega=258^\circ\text{W}$ showing that Hellas was quite normal. The *IR* images by *EHD* also showed that just the northern inside was bright at $\omega=263^\circ\text{W}$ as usual. On 17 Aug ($\lambda=270^\circ\text{Ls}$) *KOWOLLIK (SKw)* showed how the bright Hellas appeared from the limb by a series of images taken every 20 minutes from $\omega=195^\circ\text{W}$ to 229°W . The images of *DPc* at $\omega=223^\circ\text{W}\sim 231^\circ\text{W}$, and of *DTy* at $\omega=230^\circ\text{W}$ also show the bright Hellas (just like the dust lifting?). Fortunately however, as the planet moved to Florida, *DPk* took timely images at $\omega=297^\circ\text{W}$ where Hellas was shown normal. We are thus able to repeat similar discussion on the following days since we are given a rich of similar observations in Europe. **c)** As cited above, *FMI* obtained the image on 28 Aug, and then on 31 Aug ($\lambda=279^\circ\text{Ls}$) at $\omega=227^\circ\text{W}$ *MOORE (DMr)* showed a similar result. Turning to the Oceania-Asia hemisphere, Van der VELDEN (*EVI*) shot on 9 Sept ($\lambda=285^\circ\text{Ls}$, $\tau=40^\circ$) at $\omega=243^\circ\text{W}$, and MORITA (*Mo*) on 11 Sept ($\lambda=231^\circ\text{Ls}$, $\tau=39^\circ$) at $\omega=231^\circ\text{W}$. The present writer (*Mn*) observed the area on 8 Sept ($\lambda=285^\circ\text{Ls}$) at $\omega=191^\circ\text{W}$, 200°W , 219°W , 239°W , 249°W , 258°W and 268°W , and on 9 Sept ($\lambda=285^\circ\text{Ls}$) at $\omega=171^\circ\text{W}$, 181°W , 190°W , 200°W , 210°W , 220°W , 229°W and 239°W (every 40 minutes): From around $\omega=180^\circ\text{W}$ the limb side at zone $40^\circ\text{S}\sim 50^\circ\text{W}$ began to become bright, and at $\omega=210^\circ\text{W}$, M Hadriacum was definitely caught, and at the very angle $\omega=230^\circ\text{W}$, the inside was well shining. At $\omega=250^\circ\text{W}$, Hellas looked round, and then at $\omega=270^\circ\text{W}$, Hellas was normal: the west-northern part was bright in a tint of cream and other area was rather reddish with Zea L near the center and a shadowy segment running southward. We considered that the cream colour was mainly due to the airborne dust at this season seen obliquely rather than due to the confined dust devils. The Hellas area at the CM was observed at Fukui from 29 August to around 3 September, and the description of Hellas on 29 Aug ($\lambda=278^\circ\text{Ls}$) at $\omega=318^\circ\text{W}$ was the same as above. We note however the deserts on the NH were more ruddy. **d)** Incidentally we note that Hellas was covered by condensate mist near the evening terminator as shown on every B image (eg: WASIUTA (*MWs*)'s B on 18 Aug ($\lambda=271^\circ\text{Ls}$) at $\omega=311^\circ\text{W}$, *DMr*'s B on 21 Aug ($\lambda=273^\circ\text{Ls}$) at $\omega=325^\circ\text{W}$ and so on). It was also visually evident (in Japan in mid-September).

The NPH over M Acidalium: since ϕ was 15°S to 11°S , M Acidalium has become more than the tip and some more details of the north polar hood over there were caught. The difference of the nph on *DMr*'s B image on 18 Aug ($\lambda=271^\circ\text{Ls}$) at $\omega=000^\circ\text{W}$ from that on his B image on 16 Aug ($\lambda=270^\circ\text{Ls}$) at $\omega=006^\circ\text{W}$ may show that the nph now turned to be more active at the season of the northern winter solstice (unfortunately ω was different by $20'$ minutes). The image of *EGf* on 17 Aug ($\lambda=271^\circ\text{Ls}$) at $\omega=341^\circ\text{W}$ also shows a strong nph. Henceforward it was shown well on the images on 26 Aug ($\lambda=276^\circ\text{Ls}$) made by BUDA (*SBd*) at $\omega=000^\circ\text{W}$, by VALIMBERTI (*MVI*) at $\omega=004^\circ\text{W}$, and by *RHf* at $\omega=011^\circ\text{W}$, on 27 Aug ($\lambda=277^\circ\text{Ls}$) by *Yn* at $\omega=002^\circ\text{W}$, 012°W , on 28 Aug ($\lambda=278^\circ\text{Ls}$) by *Yn* at $\omega=336^\circ\text{W}$, 340°W , 346°W , 355°W , 359°W and so on. Going to Europe, the successive images by *JAr* on 7 Sept ($\lambda=283^\circ\text{Ls}$) at $\omega=004^\circ\text{W}$, 022°W show interesting variation, but in this case we need a series of shots every 20 minutes. *CPl*'s images on 8 Sept ($\lambda=284^\circ\text{Ls}$) at $\omega=348^\circ\text{W}$, 008°W , 028°W are also interesting, but unfortunately every 80 minutes. On 9 Sept ($\lambda=285^\circ\text{Ls}$) *DPc* took at $\omega=339^\circ\text{W}$, 347°W , 353°W , 000°W and 005°W , and *DTy* at ω

=346°W, 351°W, 001°W, 005°W. On the day, the variation must have been not so funny, while the image on 12 Sept ($\lambda=287^\circ\text{Ls}$) at $\omega=338^\circ\text{W}$ made by *JSc* suggests a fascinating distribution of the nph against Deuteronilus, but a single. This scene was typical in 1990. On 13 Sept ($\lambda=187^\circ\text{Ls}$), *CPl* obtained similar scenes at $\omega=330^\circ\text{W}$ and 336°W (03:21GMT). Fortunately *DPk* followed on the day and gave an image at $\omega=022^\circ\text{W}$ (06:31GMT).

Argyre: a) A detail of Argyre was interestingly given by *RHf* on 26 Aug ($\lambda=276^\circ\text{Ls}$, $\delta=13.6''$) at $\omega=010^\circ\text{W}$ where the Galle Crater which lies on the east boundary of Argyre Planitia is seen on the image, and the west-southern part was described in a slightly different colour: This may be characteristic of the ground or the effect of the dust devils which occur at the shallow basin as described by the above-cited paper (by GREELEY and others). Images of Argyre from the similar angles were more clearly given later by *DTy* on 7 Sept ($\lambda=283^\circ\text{Ls}$, $\delta=14.8''$) at $\omega=017^\circ\text{W}$, and by *DPc* on 9 Sept ($\lambda=285^\circ\text{Ls}$, $\delta=15.1''$) at $\omega=005^\circ\text{W}$. The umbrae inside look clearer and darker than those taken by HST at the opposition time in 2003: this might have been because of the big ι ($>40^\circ$ here) and if so the west southern part must be an elevated area. **b)** Argyre also was covered by a misty condensate near the evening terminator as *Mn* observed from 17 Aug ($\lambda=272^\circ\text{Ls}$) to 20 Aug. This was well shown on the B images made by *Yn* on 20 Aug ($\lambda=278^\circ\text{Ls}$). Incidentally *Yn*'s R images by ATiK show some detail of Argyre even near the terminator on the day, and so we suppose his 20 cm combined with ATiK (if in place of ToUcam) could have been able to show the details more clearly if he could have used ATiK on the night from slightly earlier time. **c)** Looking through *Mn*'s note book, he found a memo which said that the bright west-northern part of Argyre looked rather ground lit on 18 Aug ($\lambda=272^\circ\text{Ls}$) at $\omega=034^\circ\text{W}$, 044°W .

Valhalla: A dark stripe lying along the northern coasts of M Sirenum and M Cimmerium is known as *Valhalla* since the 1980s. This was visually observed by HERNANDEZ (*CHr*) on 21 Aug ($\lambda=273^\circ\text{Ls}$, $\iota=45^\circ$) at $\omega=232^\circ\text{W}$. The ccd images also show completely for example if we add *DTy*'s image at $\omega=139^\circ\text{W}$ and *RTm*'s at $\omega=200^\circ\text{W}$ made on 29 Aug ($\lambda=278^\circ\text{Ls}$, $\iota=43^\circ$). CHAVEZ (*RCv*)'s image on 3 Sept ($\lambda=281^\circ\text{Ls}$) at $\omega=180^\circ\text{W}$ also shows both sides. The present writer observed it from the beginning to the end on 8 Sept and 9 Sept ($\iota=40^\circ$, $\delta=15.1''$). We consider that the reason why this marking had been absent on any of the older Maps must have been because the older observations were limited to the shorter period just around opposition. Possibly these stripes are made of shadows of bumpy topography and so easier to see when ι is large. In 2003 when the planet was at opposition the area was seen from the Oceania-Asia hemisphere, but it just appeared fainter compared with the present case.

A Dark Stain at the Southern area of Aeria: It was frequently recognised in 2003 that there was a faint dark stain in Aeria following the area of Huygens crater, while its shape was not well caught. We may say however *Ok*'s image made on 3 Sept ($\lambda=281^\circ\text{Ls}$) at $\omega=279^\circ\text{W}$ gives a hint of its definite shape more clearly than before. Earlier *DPk*'s images on 17 Aug ($\lambda=271^\circ\text{Ls}$) at $\omega=297^\circ\text{W}\sim 310^\circ\text{W}$ and also *EGf*'s one on 22 Aug ($\lambda=274^\circ\text{Ls}$) at $\omega=295^\circ\text{W}$ may also suggest.

Other Remarks: a) Claritas is literally bright on an IR image of ARDITTI (*DAr*) made on 30 Aug ($\lambda=278^\circ\text{Ls}$) at $\omega=083^\circ\text{W}$. See also *CPl*'s on 31 Aug ($\lambda=279^\circ\text{Ls}$) at $\omega=102^\circ\text{W}$, *DPk*'s on 4 Sept ($\lambda=282^\circ\text{Ls}$) at $\omega=118^\circ\text{W}$, etc. **b)** The afore-cited *RHf*'s image on 26 August shows that the dark markings around Argyre look wine coloured. There are lots of images which show the wine colour at the southern markings. Another case is shown on the image by *Ok* above-cited. Incidentally *Ok*'s image also shoots the Huygens crater. **c)** It is well known that a strange canal was watched from 1851 to 1871 from Margaritifer S to Niliacus L and called Hydaspes. This was again a bit identified in 2003, and this year it is present as in 2003: See for example the images by *EGf* made on 17 Aug ($\lambda=271^\circ\text{Ls}$) at $\omega=341^\circ\text{W}$, *DPk*'s on 13 Sept ($\lambda=287^\circ\text{Ls}$) at $\omega=022^\circ\text{W}$ and others. Its colour is differently brownish perhaps because it is fainter (as if shadowy) than the other neighbourhood markings. **d)** The tiny bright spot near the north-western end of Syrtis Mj communicated by BEISH (on 15 September, see LtE) is already seen on the ANDERSON (*DAd*)'s image on 22 Aug ($\lambda=273^\circ\text{Ls}$) at $\omega=271^\circ\text{W}$ and so on.

♂……………**南極冠とその周り**：南極冠はこの期間終わり($\lambda=289^\circ\text{Ls}$)でも肉眼でクッキリ見えている。問題は周縁部であるが、オーエン氏(LOW)氏の16Aug($\lambda=270^\circ\text{Ls}$) $\omega=327^\circ\text{W}$ 、19Aug($\lambda=272^\circ\text{Ls}$) $\omega=296^\circ\text{W}$ 、20Aug($\lambda=272^\circ\text{Ls}$) $\omega=298^\circ\text{W}$ 、グラフトン(EGf)氏の18Aug($\lambda=271^\circ\text{Ls}$) $\omega=336^\circ\text{W}$ 、20Aug($\lambda=272^\circ\text{Ls}$) $\omega=313^\circ\text{W}$ にノウス・モンスの邊りに少し白味のところが見えているので未だ残滓がこの頃まで存在した可能性がある。ただ、LOW氏のB光像は赤外漏れがあるようで、ホントの色が出ているかどうかは判らない。その後も、ノウス・モンスあたりは明るく見えるのが続くのであるが、これは砂被りか何かであろうと思う。例えばペリエ(CPI)氏の13Sept($\lambda=287^\circ\text{Ls}$) at $\omega=330^\circ\text{W}$ の像を参照。もう一箇所、 $\omega=200^\circ\text{W}$ の邊りから眺める南極冠の速く溶けた部分であるが、18Aug($\lambda=271^\circ\text{Ls}$)のアデラル(JAd)の $\omega=200^\circ\text{W}$ 、タイラー(DTy)氏の $\omega=209^\circ\text{W}$ などを見ると、この高緯度南極冠周縁は矢張りトンでいる様に見えるが、28Aug($\lambda=277^\circ\text{Ls}$)の $\omega=215^\circ\text{W}$ でのLOW氏像、或いは31Aug($\lambda=279^\circ\text{Ls}$) $\omega=202^\circ\text{W}$ のEGf氏像を見ると、安定していて大氣的では無いように思う。これに関して、南極冠周縁が方のキャップのように寫る場合がある(capはもともと帽子であるが、この場合spcは帽子の抓みのようなもの)。例えば、LOW氏の20Aug($\lambda=272^\circ\text{Ls}$) $\omega=298^\circ\text{W}$ が典型的なものであるが、翌21Aug($\lambda=273^\circ\text{Ls}$) $\omega=298^\circ\text{W}$ のEGf氏の像では、稍違ってみえる。3Sept($\lambda=281^\circ\text{Ls}$) at $\omega=279^\circ\text{W}$ で岡野(Ok)氏が良像を得たが、これにも法王キャップが出ている。實は八月終わりから九月初めに掛けてこの部分を肉眼で視ているが、然程このキャップは明確ではないのである。岡野氏の話ではRGBの選び方、感色性にも依存するであろうということである(LtE参照)。序でに岡野氏像の南極冠は縁なしで、この點は肉眼での感じと似ている。但し、明るさは肉眼では際立つので、印象は違う。南極冠の縁については、ウォーカー(SWk)氏の16Aug($\lambda=270^\circ\text{Ls}$)でのToUcamによる $\omega=298^\circ\text{W}$ とCanon-Powershotによる $\omega=332^\circ\text{W}$ での南極冠の描寫の違いが示唆的である。後者の方がOk氏の南極冠に近い。一方、普通ccd強調像では南極冠に暗縁が伴っている。南極冠の再分割に関しては2003年の場合DPc氏の23Oct2003($\lambda=285^\circ\text{Ls}$) $\omega=101^\circ\text{W}$ などの場合(他にバーナードの $\lambda=296^\circ\text{Ls}$ 時點でのスケッチ)についてはCMO#282Report#17で述べたが、ヘフナー(RHf)氏の18Aug($\lambda=272^\circ\text{Ls}$) $\omega=090^\circ\text{W}$ にはそのケが現れているかも知れない。この亀裂は後にDPk氏が7Sept($\lambda=284^\circ\text{Ls}$) $\omega=091^\circ\text{W}\sim 105^\circ\text{W}$ のR像で明確に示した。

タルシス地方：タルシス三山を含んでオリュムプス・モンス地方の描寫ではRHf氏の18Aug($\lambda=271^\circ\text{Ls}$, $\delta=12.8''$, $i=43^\circ$) $\omega=097^\circ\text{W}$ および19Aug($\lambda=272^\circ\text{Ls}$) $\omega=090^\circ\text{W}$ の像がトミに優れている。視直径と*i*の組み合わせが丁度好いからであろう。オリュムプス・モンスの蔭の部分もよく分かり、アルシア・モンスの邊りも興味深い。ヨーロッパに渡って、29Aug($\lambda=278^\circ\text{Ls}$, $\delta=13.8''$, $i=43^\circ$)でのDPc氏の $\omega=099^\circ\text{W}$ がこれに對應する。タルシス地方に顕れるこうした模様の多くは斜光による影によって出来るわけであるから、*i*の變化で次第に褪せてくる。以後、1Sept($\lambda=280^\circ\text{Ls}$)のカッレル(MKr)氏の $\omega=062^\circ\text{W}$ 、サンチェス(JSc)氏の $\omega=101^\circ\text{W}$ 、5Sept($\lambda=282^\circ\text{Ls}$)のベーツ氏(DBt) $\omega=125^\circ\text{W}$ 、コルヴィル(BCI)氏の $\omega=129^\circ\text{W}$ 、DPk氏の7Sept($\lambda=284^\circ\text{Ls}$) $\omega=091^\circ\text{W}$ 、8Sept($\lambda=284^\circ\text{Ls}$)のテータム(RTm)氏の $\omega=099^\circ\text{W}$ 、EGf氏の $\omega=130^\circ\text{W}$ 、9Sept($\lambda=285^\circ\text{Ls}$, $i=40^\circ$)のディッキンソン(WDs)氏の $\omega=094^\circ\text{W}$ 、EGf氏の $\omega=109^\circ\text{W}$ 等と続くが、像が汚くなる。次第に*i*が減るために増感が必要になった為かも知れない。

アルシア雲：オリュムプス・モンスには夕雲は現れないが、アルシア・モンス近傍に夕雲が伴うことについては前回詳しく述べたが、今回第二のピークに近くなり、観測も多い。先ず、今回の嚙矢はペリエ(CPI)氏の26Aug($\lambda=276^\circ\text{Ls}$) $\omega=113^\circ\text{W}$ 、 128°W だが、後者では蝶型のアルシア雲が(初めて? MGS_MOCでは屢々見られる)捉えられている。 $i=44^\circ$ だから、後者の場合、夕縁から $90-44-(128-120)=38^\circ$ ということになり、夕没二時間半ほど前になる。他にDPc氏の28Aug($\lambda=277^\circ\text{Ls}$) $\omega=119^\circ\text{W}\sim 137^\circ\text{W}$ などの見られ、蝶型は29Aug($\lambda=278^\circ\text{Ls}$)のDPc氏の $\omega=121^\circ\text{W}$ (B)、DTy氏の $\omega=139^\circ\text{W}$ (B)、30Aug($\lambda=279^\circ\text{Ls}$)のCPI氏の $\omega=132^\circ\text{W}$ (B)、ヒダルゴ(EHd)氏の $\omega=124^\circ\text{W}$ (B)、 141°W (B)などに見られる。アルシア雲の観測は他にも多いがここで觸れず、出来れば後日纏めたい。アルシア雲はオリュムプス・モンス雲と違って日毎安定しないから、アニメなど作るより、毎日同じ角度、同じ条件で撮ることが奨められる。肉眼でも

筆者は12Sept($\lambda=287^\circ\text{Ls}$)、15Sept($\lambda=289^\circ\text{Ls}$)で可成り長く縁まで追求出来たが、15SeptのMo氏やYn氏のB像にはクッキリ端まで出ている。南半球夕縁にはいつも水蒸気が漂うが、このタルシス南部はとくに集中するようである。

ヘッラス盆地壁の亂反射 : a)メリッロ(FMI)氏が28Aug($\lambda=277^\circ\text{Ls}$, $\iota=43^\circ$) $\omega=236^\circ\text{W}$ で象徴的な像をコナした。どういうことかというFMI氏はヘッラスが右端で明るく黄雲ではないかという話題が出た時期、21July($\lambda=242^\circ\text{Ls}$, $\iota=47^\circ$) $\omega=230^\circ\text{W}$ に撮っているからである。一ヶ月以上も"黄雲"が局所的に存在するはずが無いので、誰も話題にしなくなったが、この点については前号#308p151に述べた通りである。ただ、 $\lambda=270^\circ\text{Ls}$ 前後以降 360°Ls 頃までヘッラス内の小さな旋風^{つむじかぜ}が頻繁に起こって砂埃が立っていることが知られており(R.GREELEY et al, *Mars: Dust Devil Tracks in Hellas Basin and Argyre Planitia*, LP Science 34(2003) <http://www.lpi.usra.edu/meetings/lpsc2003/pdf/1769.pdf>)、この時期に入ると少々色が黄色くなるであろうが、起こっているのが4kmから7kmの深みで、高気圧支配であるから、出て来る譯ではない。b)筆者の1973年八月下旬の観測では $\lambda=269^\circ\text{Ls}$, $\iota=40^\circ$ で矢張りヘッラスが右縁でひどく明るく、中に入るとゼア・ラクスが見えているから、同じ様な状況であった。c)扱て、今回は既にヨーロッパで16Aug($\lambda=270^\circ\text{Ls}$, $\iota=45^\circ$)に良像が得られている。DPc氏の $\omega=233^\circ\text{W}$ ではクリーム色の輝きになっているが、直ぐ後のDTy氏の $\omega=239^\circ\text{W}$ やCPI氏の $\omega=258^\circ\text{W}$ では普通のヘッラスに戻っている。EHd氏の $\omega=263^\circ\text{W}$ のIR像では北部に明部が押し込められている。17Aug($\lambda=270^\circ\text{Ls}$)にはコヴォリック(SKw)さんが $\omega=195^\circ\text{W}$ から 229°W まで廿分毎に刻んで、ヘッラスの出てくる様子を傳えている。DPc氏の $\omega=223^\circ\text{W}\sim 231^\circ\text{W}$ 、DTy氏の $\omega=230^\circ\text{W}$ では黄雲のように輝いている。然し、DPk氏の $\omega=297^\circ\text{W}$ では普通のヘッラスである。以下同文である。アメリカに渡って、28AugのFMI氏の結果は先に述べたが、ムーア(DMr)氏の31Aug($\lambda=279^\circ\text{Ls}$) $\omega=227^\circ\text{W}$ でも同じ様である。オセアニア・東洋に移って、9Sept($\lambda=285^\circ\text{Ls}$, $\iota=40^\circ$)のヴァン・デア・ヴェルデン(EVI)氏の $\omega=243^\circ\text{W}$ 、森田(Mo)氏の11Sept($\lambda=231^\circ\text{Ls}$, $\iota=39^\circ$) at $\omega=231^\circ\text{W}$ でも明るく見えている。筆者は8Sept($\lambda=285^\circ\text{Ls}$)には $\omega=191^\circ\text{W}$, 200°W , 219°W , 239°W , 249°W , 258°W , 268°W 、9Sept($\lambda=285^\circ\text{Ls}$)には $\omega=171^\circ\text{W}$, 181°W , 190°W , 200°W , 210°W , 220°W , 229°W , 239°W と追った。 $\omega=180^\circ\text{W}$ ぐらいからヘッラス方向の縁が明るくなり、 $\omega=210^\circ\text{W}$ ではマレ・ハドリアクムが捉えられ、問題の $\omega=230^\circ\text{W}$ 辺りでは充分輝いている。 $\omega=250^\circ\text{W}$ 辺りではヘッラスは圓く見え、 $\omega=270^\circ\text{W}$ 辺りではヘッラスは普通、西北端がクリーム色で明るく、ゼア・ラクスが見え地肌が赤っぽく見える。このヘッラスの南中時の姿は福井では29Aug邊りから3Sept邊りまで観測され、29 Aug($\lambda=278^\circ\text{Ls}$)のヘッラスが夕方に傾いた $\omega=318^\circ\text{W}$ でもその記述がある。北の砂漠は勿論更に赤っぽい。d)序でにヘッラスの夕端での振る舞いに觸れると、矢張り、相変わらず水蒸気に覆われるようで、どのBでも出ている(例えばワシューータMWs氏の18Aug($\lambda=271^\circ\text{Ls}$) $\omega=311^\circ\text{W}$ のB像、DMr氏の21Aug($\lambda=273^\circ\text{Ls}$) $\omega=325^\circ\text{W}$ のB像など)。眼視でも明白である(日本からは九月上旬)、実際にはどの ω でも夕端とくに南半球は霧が出ている。

マレ・アキダリウム上の北極雲 : ϕ が 15°S から 11°S となってゆくために例えばマレ・アキダリウムとその上を覆う北極雲が好く把握されるようになった。少し角度が違うので比較は難しいが、DMr氏の16Aug($\lambda=270^\circ\text{Ls}$) $\omega=006^\circ\text{W}$ のBと18Aug($\lambda=271^\circ\text{Ls}$) $\omega=000^\circ\text{W}$ のB光像の北極雲を比べると後者では遙かに強くなっているように見える(こうした場合、 ω を揃えるのが鐵則)。EGf氏の17Aug($\lambda=271^\circ\text{Ls}$) $\omega=341^\circ\text{W}$ での北極雲も強く見える。以後、26Aug($\lambda=276^\circ\text{Ls}$)にはブダ(SBd)氏の $\omega=000^\circ\text{W}$ 、ヴァリンバーティ(MVI)氏の $\omega=004^\circ\text{W}$ 、RHf氏の $\omega=011^\circ\text{W}$ 、柚木(Yn)氏の27Aug($\lambda=277^\circ\text{Ls}$) $\omega=002^\circ\text{W}$, 012°W 、28Aug($\lambda=278^\circ\text{Ls}$) $\omega=336^\circ\text{W}$, 340°W , 346°W , 355°W , 359°W などに好く見られる。ヨーロッパに移ってJAr氏の7Sept($\lambda=283^\circ\text{Ls}$) at $\omega=004^\circ\text{W}$, 022°W も面白い変化を傳えているが、こういう場合は廿分ごとに像を作るべきである。CPI氏の8Sept($\lambda=284^\circ\text{Ls}$) at $\omega=348^\circ\text{W}$, 008°W , 028°W は八十分ごとの撮像となっていて不満である。9Sept($\lambda=285^\circ\text{Ls}$)にはDPc氏が $\omega=339^\circ\text{W}$, 347°W , 353°W , 000°W , 005°W 、DTy氏が $\omega=346^\circ\text{W}$, 351°W , 001°W , 005°W と刻んでいる。この日は然程面白い動きは無かったようだが、12Sept($\lambda=287^\circ\text{Ls}$) at $\omega=338^\circ\text{W}$ のJSc氏の像に顕れる北極雲とデウテロニルスとの對應など魅惑的である。但し連続像がないのが残念。

13Sept($\lambda=187^\circ\text{Ls}$)にはCPI氏が $\omega=330^\circ\text{W}$ 、 336°W (03:21GMT)で同じ様な風景を捉えた。1990年にお馴染みの光景である。同じ日アメリカに移って、DPk氏が単発であるが三時間後 $\omega=022^\circ\text{W}$ (06:31GMT)で夕方のマレ・アキダリウムを捉えている。

アルギュレ : a) アルギュレの詳細がRHf氏によって26Aug($\lambda=276^\circ\text{Ls}$, $\delta=13.6''$) $\omega=010^\circ\text{W}$ 前後に撮られた。よく診るとアルギュレに特徴的なGalleクレーターが見えている。盆地内部の西南部は少し色が違って描寫されているが、地面の特徴かも知れないし、或いは先のGreeley達の論文にみられる比較的浅い位置での旋風の影響かも知れない。然し、黄塵の明るさが無い。同じ様子は後日DTy氏の7Sept($\lambda=283^\circ\text{Ls}$, $\delta=14.8''$) at $\omega=017^\circ\text{W}$ 、またDPc氏の9Sept($\lambda=285^\circ\text{Ls}$, $\delta=15.1''$) at $\omega=005^\circ\text{W}$ にも明確である。内部の陰翳は2003年の最接近時のHST像より鮮明なので、iの大きい所爲かもしれない。西南部は少し高臺ということになる。b) アルギュレも夕方、少し靄る。眼視でも筆者は17Aug($\lambda=272^\circ\text{Ls}$)~20Augまでこれを認めている。Yn氏の20AugのB像にはよく出ている。また、R像にはアルギュレ内部の詳細が少し垣間見えているから、早い時間からToUcamでなくATiKで撮っていれば20cmでも捉えられたと思う。c) なお、筆者の記録を見ていたら18Aug($\lambda=272^\circ\text{Ls}$) $\omega=034^\circ\text{W}$ 、 044°W で南中のアルギュレの西南部が明るくoff-whiteとしているが、メモには多分ground-litであろうとなっている。

ワルハッラ : マレ・シレヌムとマレ・キムメリウムに沿って少し離れたところに暗條が走ることが1980年代から知られ、ワルハッラと呼ばれているが、ヘルナンデス(CHr)氏の21Aug($\lambda=273^\circ\text{Ls}$, $\iota=45^\circ$) $\omega=232^\circ\text{W}$ のスケッチに明確に顕れている。ccdでは例えば29Aug($\lambda=278^\circ\text{Ls}$, $\iota=43^\circ$)のDTy氏の $\omega=139^\circ\text{W}$ とRTm氏の $\omega=200^\circ\text{W}$ を加えると完全になる。チャヴェス(RCv)氏の3Sept($\lambda=281^\circ\text{Ls}$) at $\omega=180^\circ\text{W}$ は両方に跨っている。筆者は8Sept、9Sept($\iota=40^\circ$, $\delta=15.1''$)に両方隈無く眺めている。この模様が古い記録にない理由は古い観測が衝前後に限られた所爲であろうと思う。暗色模様ではなく、多分凹凸による影であろうと思う。iが小さくなれば自然濃度が落ちる。2003年の衝時には東洋から見えていたが、僅かに確認出来るものの今回より遙かに淡いものであった。ワルハッラ(北歐神話による)の名稱に就いてはつまびらかにしないが、臆氣に何年であったかピックで衝より遙か以前に観測したシーハン氏達が関係していたように憶えている。新しい模様などと喧傳されてそうではあるまいと反発を感じたのも憶えているが、今度シーハン氏に直接訊ねてみる。

アエリア南部の暗斑 : アエリア砂漠の南部に小さな暗斑があることは、2003年にはよく知られていたが、形状はどうであるかといえ、2003年には明確に出したものは無いように思う。然し、Ok氏の3Sept($\lambda=281^\circ\text{Ls}$) at $\omega=279^\circ\text{W}$ の影像に顕れている暗斑はかなり詳しくなっていると思う。振り返ると17Aug($\lambda=271^\circ\text{Ls}$) $\omega=297^\circ\text{W}$ ~ 310°W のDPk氏の像にも不安定ながら相應に出ているかと思う。他に22Aug($\lambda=274^\circ\text{Ls}$) $\omega=295^\circ\text{W}$ のEGf氏像。

その他雑題 : a) クラリタスの文字通り明るいことがアーディッチ(DAr)氏の30Aug($\lambda=278^\circ\text{Ls}$) $\omega=083^\circ\text{W}$ のIRに記録されている。他にCPI氏の31Aug($\lambda=279^\circ\text{Ls}$) $\omega=102^\circ\text{W}$ 、DPk氏の4Sept($\lambda=282^\circ\text{Ls}$) $\omega=118^\circ\text{W}$ など。b) 先に引用した26augのRHf氏の像にはアルギュレの周りの暗色模様がワインカラーであることを注意しておく。勿論ワインカラーの描寫は他にもあるが、先に引用のOk氏の像にもこれが顕れている。他にOk氏の像はホイヘンス・クレーターを上手く自然體で描寫している。c) 1851年から1871年まで見られたとされるヒュダスペースという運河(マルガリティフェル・シヌスとニリアクス。ラクスを結ぶ)が2003年に一部記録されたが、今回も17Aug($\lambda=271^\circ\text{Ls}$) $\omega=341^\circ\text{W}$ のEGf氏像その他で顕示されている。色が違って見えるのは淡い蔭だからであろう。d) ビーシュ(JBs)氏によって15Septに喚起されたシュルティス・マイヨル北東端の明斑は既に22Aug($\lambda=273^\circ\text{Ls}$) $\omega=271^\circ\text{W}$ のDAd氏の像をはじめ幾つかに見られる。

♂.....**We further received** the following observations previously obtained: 次の追加報告があった :

OWENS, Larry ラリー・オーエンス (LOW) Alpharetta, GA, USA

14 CCD Images (13, 17, 21,~24, 26, 27 July; 4, 11,~13, 15 August 2005) 35cm SCT/ToUcam

♂.....LOW's images here are all excellent and important: The images made on 21 July ($\lambda=248^\circ\text{Ls}$) at $\omega=224^\circ\text{W}$,

on 22 July $\omega=221^\circ\text{W}$, and on 23 July $\omega=211^\circ\text{W}$ are all concerned with the popping-out bright Hellas. The one on 24 July ($\lambda=255^\circ\text{Ls}$) at $\omega=192^\circ\text{W}$ also shows a tiny Novus Mons near the morning limb. The spc on the images from on 4 Aug ($\lambda=262^\circ\text{Ls}$) at $\omega=091^\circ\text{W}$, 097°W , to 12 Aug ($\lambda=267^\circ\text{Ls}$) at $\omega=017^\circ\text{W}$ all shows a dust projections down to the direction of Solis L (as noted in #308). In particular the decay to cause the dust disturbance depicted on the image on 12 Aug looks very fascinating. The 15 Aug image at $\omega=340^\circ\text{W}$ gives a good aspect of final Novus Mons.

♂.....ROw氏の画像はどれも秀逸で、重要である。21July($\lambda=248^\circ\text{Ls}$) $\omega=224^\circ\text{W}$ 、22July $\omega=221^\circ\text{W}$ 、23July $\omega=211^\circ\text{W}$ はどれもヘッラスの朝方の迷明を示す。24July($\lambda=255^\circ\text{Ls}$) $\omega=192^\circ\text{W}$ は入ってくるノウウス・モンスを撮し出している。4Aug($\lambda=262^\circ\text{Ls}$) $\omega=091^\circ\text{W}$ 、 097°W から12Aug($\lambda=267^\circ\text{Ls}$) $\omega=017^\circ\text{W}$ は南極冠からソリス・ラクスに向けての南極冠の崩壊(黄塵興し)が見られ、12Augのものは特に顕著な瞬間を捕まえたというべきであろう。15Aug $\omega=340^\circ\text{W}$ 像は明白なノウウス・モンスの最後の姿を伝える。

♂.....In the next issue we shall review the observations made during the fortnight period from 16 September ($\lambda=289^\circ\text{Ls}$, $\delta=15.9''$) to 30 September 2005 ($\lambda=298^\circ\text{Ls}$, $\delta=17.7''$).

南 政 次 Masatsugu MINAMI

便り Letters to the Editor

●.....Date: Sat, 20 Aug 2005 11:04:29 EDT
Subject: mars images

Dear Masatsugu Minami, I have been out of Mars observing way too long-but despite this you have continued my subscription to the CMO circular. For this I am very appreciative! I find the information and caliber of observations among the most timely in the world.

I will be observing again as much as my schedule permits, and would like to submit my first ccd images at this time.

I used a Celestron 8 at $f/25$, an ATK-1HS camera, and wratten red, green, and blue filters. Best Wishes,

Myron WASIUTA (マイロン・ワシユータ VA 美)

●.....Date: Thu, 25 Aug 2005 19:35:55 +0100
Subject: Mars images (August 24th.)

Hi all, Here are some images from yesterday in poor seeing. The B image is most interesting, with a delicate "V" shaped band of haze across Arcadia/Amazonis and the Propontis complex. A MLH is present from Trivium-Cerberus upto the southern polar haze. The NPH is prominent. Also again note the dark condensation in the Valhalla marking.

http://homepage.ntlworld.com/damian.peach/2005_08_24rgb_DAP.jpg

○.....Date: Fri, 2 Sept 2005 20:06:19 +0100
Subject: Mars images (August 28th, 2005.)

Hi all, Here are some images from August 28th. Seeing fair, and later good. Tharsis is presented revealing many interesting details. The Arsia Mons orographic cloud is peculiar. It seems double and irregular, with dark line seperating the two components (unless the fainter cloud is associated with Pavonis Mons?) Note it brightens as it approaches the evening terminator. Southern polar hazes, and other weak cloud details can also be seen in Blue. The Tharsis volcanoes can all be seen in the Red images as dark spots approaching the terminator. Olympus mons notably darkening toward sunset in all wavelengths as does Ascreaus Mons, all appearing notably redish, and darkest in Blue. Also note the faint low contrast patens across the

desert areas of Amazonis and Arcadia (these can be well identified in previous apparition imagery.)

http://homepage.ntlworld.com/damian.peach/2005_08_28rgb_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_08_28red_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_08_28gb_DAP.jpg

Best Wishes

○.....Date: Sun, 4 Sept 2005 18:42:49 +0100
Subject: Mars images (August 29th, 2005.)

Hi all, Here are some images from August 29th. Fair to good seeing. Lots of interesting features are seen similar to the previous session. The Arsia cloud notably brightens as it approaches the evening limb. Also note all of the Tharsis volcanoes can be seen in Red and colour images - all appear decidedly redish, especially Olympus and Ascreaus Mons.

http://homepage.ntlworld.com/damian.peach/2005_08_29rgb_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_08_29red_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_08_29gb_DAP.jpg

○.....Date: Sun, 4 Sept 2005 21:27:55 +0100
Subject: Mars images (August 30th, 2005.)

Hi all, Here are some images from August 30th. Poorer seeing, but still much detail is visible. The Arsia cloud is much fainter, and lacks it second "component" nearer the disk centre which only seems to form when the volcano is approaching the terminator. Olympus and Ascreaus Mons appear dark in Blue. Tithonius Lacus shows some nuclei, and Solis Lacus shows several "canals" extending from its centre. Also Phasis appears broken into small patches.

http://homepage.ntlworld.com/damian.peach/2005_08_30rgb_DAP.jpg

○.....Date: Mon, 5 Sept 2005 00:36:51 +0100
Subject: Mars images (August 28th, 2005 - Animations)

Hi all, Here are some RGB and B animations from August 28th. Tharsis and it volcanoes can be seen clearly.

http://homepage.ntlworld.com/damian.peach/aug28th_RGB.gif

http://homepage.ntlworld.com/damian.peach/aug28th_B.gif

I also include a small chart showing the locations of the four Tharsis volcanoes which can be seen in the RGB animation.

<http://homepage.ntlworld.com/damian.peach/tharsis.jpg>

○.....Date: Mon, 5 Sept 2005 19:49:20 +0100
Subject: Mars images (September 2nd, 2005.)

Hi all, Here are some images from September 2nd. Solis Lacus is central with Agathodaemon/Tithonius Lacus well defined. In Blue light note the Arsia cloud is weakly visible near the morning limb. Also some haze over Argyre on

the evening terminator. Also weak haze over Candor/Ophir. Asraeus Mons is dark in Blue.

http://homepage.ntlworld.com/damian.peach/2005_09_02rgb_DAP.jpg

○·····Date: Tue, 6 Sept 2005 20:55:53 +0100
Subject: Mars images (September 3rd, 2005.)

Hi all, Here are some Mars images from the 3rd in very poor conditions. Unable to obtain any red images due to seeing/clouds. A weak haze is again present over Argyre as well as Candor/Ophir. The NPH is also quite prominent.

http://homepage.ntlworld.com/damian.peach/2005_09_03rgb_DAP.jpg

○·····Date: Thu, 8 Sept 2005 09:43:10 +0100
Subject: Mars images (September 7th, 2005.)

Hi all, Here are some Mars images from the 7th. This is my 42nd session of Mars images already this apparition!. Seeing was poor up until the end of the session when it became better. This is a true RGB image and sequence showing the Chryse hemisphere. The yellowish tint to the haze across Tharsis is interesting. In Blue a light haze is present over Candor/Ophir, and also Argyre. Note the cloudy condensations within the NPH which is very prominent.

http://homepage.ntlworld.com/damian.peach/2005_09_07rgb_DAP.jpg

○·····Date: Sat, 10 Sept 2005 23:44:25 +0100
Subject: Mars images (September 9th, 2005.)

Hi all, Here are some multispectral images from the 9th in good seeing. Allot of interesting detail can be seen. Over central Chryse a small streak runs NW from Oxia Palus to Niliacus Lacus which corresponds roughly to the Hydaspes canal. Others may want to comment. Argyre is interesting showing a circular outline and dark central spot. Some weak remainder (possibly of the SPC) remains in the area. A dark streak is present across Depressiones Hellesponticae. Pandora Fretum has a well defined southern boundary. Deuteronilus can also be seen in the early R images. Also note the weak light channel running through Eos. In B and G a dense misty NPH is present, and Mare Acidalius can be seen in places through the mist. Note the dark line bordering the NPH is Blue. Also in Blue, weak evening mist over Hellas and morning mist over Argyre. A light MLH is present over Thaumasia/Candor etc.

http://homepage.ntlworld.com/damian.peach/2005_09_09rgb_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_09_09red_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_09_09green_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_09_09blue_DAP.jpg

○·····Date: Sun, 11 Sept 2005 00:51:08 +0100



D PEACH's Image on 9 Sept 2005

Subject: Mars images (September 10th, 2005.)

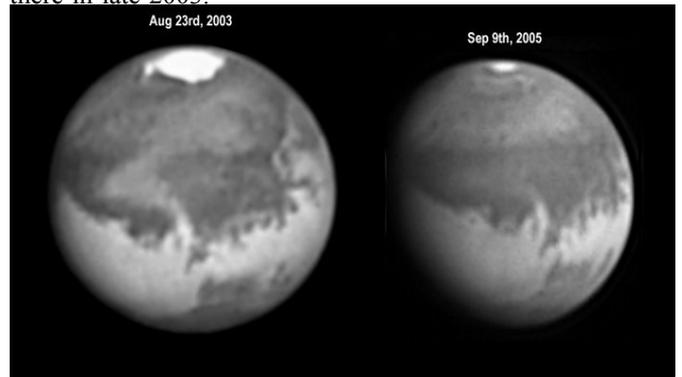
Hi all, Here are some images from the 10th. Terrible conditions with dense fog. Seeing was very steady, but only a brief window where the haze became thin enough to obtain images (while Mars was still low.)

○·····Date: Sun, 11 Sept 2005 00:56:58 +0100
Subject: Martian coloured areas.

Hi guys. I am attaching (☞) a true RGB image obtained very early on Sept 9th while Mars was still low not included in the sequences due to its poorer quality. It does reveal however some interesting details. A wine coloured region is present between southern Hellas and the SPC (first noted by **Christophe Pellier** last month.) It also shows some delicate yellowish hazes across Chryse. Best Wishes

○·····Date: Mon, 12 Sept 2005 18:20:39 +0100
Subject: Changes across Deucalionis Regio

Hi all, I was comparing today some 2005 and 2003 images and noticed some striking changes in the albedo markings around Deucalionis Regio near Sinus Meridiani. Most striking is the change in brightness of Deucalionis Regio which was much brighter in 2003 than at present, and the area is now very dusky, with Pandora Fretum appearing much darker with a distinct southern boundary (it looks like a band in the eyepiece.) The most southern portions of Hesperia have also become much brighter. I guess all these changes must be related to the dust storm that occurred there in late 2003.



○·····Date: Fri, 16 Sept 2005 20:42:35 +0100
Subject: Mars images (September 13th, 2005.)

Hi all, Here are some images from the 13th in fair to good seeing. Interesting to note the "hole" in the NPH in the G images. Deuteronilus appears dark in all filters bordering the NPH in G and B. In Blue a dusky patch is present where Deltoton Sinus once was. Hellas is misty toward the evening terminator. Chryse has some light haze which looks a touch yellowish. Edom also shows a faint mist.

http://homepage.ntlworld.com/damian.peach/2005_09_13rgb_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_09_13red_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_09_13green_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_09_13blue_DAP.jpg

○·····Date: Sat, 17 Sept 2005 05:13:06 +0100

Subject: Mars images (September 14th, 2005.)

Hi all, Here are some images from September 14th. Poor conditions with constant clouds. A light evening mist is present over Libya. Hellas is again misty.

○·····Date: Sun, 18 Sept 2005 14:36:34 +0100
Subject: Mars images (September 14th, 2005.)

Hi all, Here are some images from the 17th. Poor-fair seeing. Syrtis Major is central in these images with various projections off it notably toward Osiridus Pr. The area at NW Syrtis Major looks faded giving it a rather pointed appearance. Zea Lacus/Peneus are seen inside Hellas. In Blue, a light haze is present over Libya. An SPC rift is hinted at in Red light.

http://homepage.ntlworld.com/damian.peach/2005_09_17rgb_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_09_17red_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_09_17blue_DAP.jpg

○ ······ **Date: Mon, 19 Sept 2005 01:04:54 +0100**

Subject: Mars images (September 18th, 2005.)

Hi all, Here are some images from yesterday. Seeing was mostly good, though allot of low cloud was present at times. Much the same as the session before. The 0307 colour image is true RGB and shows some interesting colour, notably a yellowish Hellas. In Blue the haze over Hellas weakens considerably as it moves away from the morning limb. Also a large weak haze again over Libya.

http://homepage.ntlworld.com/damian.peach/2005_09_18rgb_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_09_18red_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_09_18blue_DAP.jpg

○ ······ **Date: Sat, 24 Sept 2005 14:01:42 +0100**

Subject: Mars images (September 20th, 2005.)

Hi all, Here are some images from Sept 20th in good seeing. The NPH shows some interesting structure, with a bright dense inner component over Utopia into Boreo Syrtis, while a weaker hazy component extending across northern Aetheria. There is also a patchy mist across Libya. Hellas is also misty near the morning limb. A bright morning mist is present over Aeria. In Red much fine detail, with Cerberus III visible along with other details in Hesperia. In the 00:27 image a small dark spot is seen where Elysium Mons is located - possible evening shadow?.

http://homepage.ntlworld.com/damian.peach/2005_09_20rgb_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_09_20red_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_09_20blue_DAP.jpg

○ ······ **Date: Sat, 24 Sept 2005 15:58:43 +0100**

Subject: Mars images (September 21st, 2005.)

Hi all, Here are some images from the 21st. Very good seeing before the fog arrived. Some interesting hazes visible in G and B images. Some yellowish haze visible around Hyblaeus. Also and evening limb cloud visible over Aeolis. Hazes over Hellas and Libya again. NPH is thick but partially transparent.

http://homepage.ntlworld.com/damian.peach/2005_09_21rgb_DAP.jpg

○ ······ **Date: Sat, 24 Sept 2005 21:52:30 +0100**

Subject: Mars images (September 22nd, 2005.)

Hi all, Here are some images from the 22nd - my best session so far this apparition. Good seeing allowed some interesting details to be noted. There seems to be some notable yellowish areas present, especially near Elysium and Hyblaeus. The areas show up well in Green and RGB. Some fine detail across Mare Cimmerium and Hesperia. The NPH shows is again partially transparent with a thick northern part.

http://homepage.ntlworld.com/damian.peach/2005_09_22rgb_DAP.jpg

Best Wishes

Damian PEACH (デミアン・ピーチ Bkh英)

● ······ **Date: Thu, 25 Aug 2005 07:59:09 +0200**

Subject: Re: Mars Aug 22

Hi all, this discussion is interesting and we might add some new info about this - a general belief is that CCD imaging is objective where the human eye gives much more subjective data. This is just not true. One just have to take a tour on all the Mars images that have been taken to realize that there is no one image equal to another in terms of colors, contrasts, kind of details visible. In reality, CCD images are also highly subjectives (if not, the only difference would be resolution, because of the instrument and the seeing) ; but while subjectivity happens during the observation with the eye, it enters "by the back door" during the processing phase of digital images (this is something I've been

strongly insisting on for quite a while). Many processings currently used on Mars are merely suppressing data ! What's the role of visual observations then ? Well they're still critical to /verify that the CCD image is correctly processed/ !! To know what's the reality of a planet, one still has to look directly at the eyepiece, there is no other way...As an example, it's remarkable that one of the most precious information of the 2003 Mars, the presence of a light yellow dust haze over the entire planet, has been completely missed by the vast majority of images (just remember 5-6 revealing this info) and noticed first by visual observers.

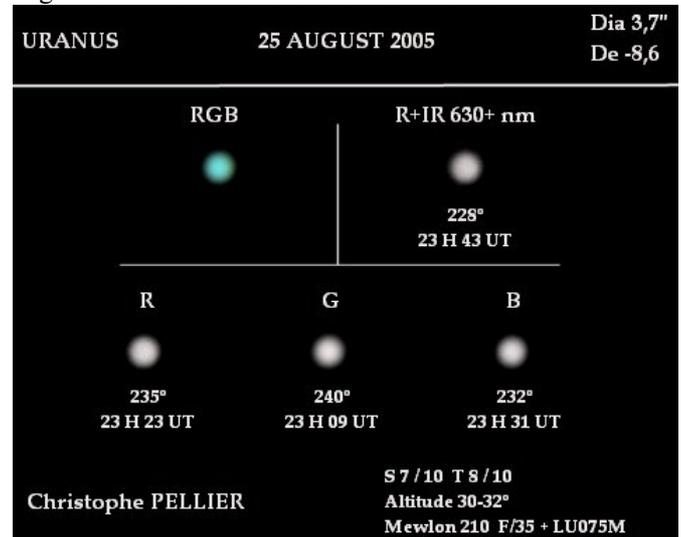
○ ······ **Date: Fri, 26 Aug 2005 22:45:21 +0200**

Subject: Uranus on august 25th 2005

Hi all, the Lumenera worked better last night (although it might be sent back...). It's now capturing real 12 bits images ! Frame rate was 7,5 fps for this tiny target (in this situation, the old 5 fps setting of the webcams would have been nice for a longer exposure...)

<http://www.astrosurf.org/pellier/U050825-CPE>

A few Uranus images taken under good conditions. Much better than the few ones obtained with the ATK in early august... No detail is recorded. Best wishes



○ ······ **Date: Sat, 27 Aug 2005 13:32:22 +0200**

Subject: Mars on august 26th

Hi all, here are some images showing various Tharsis volcanoes (including maybe Pavonis?) and the Arsia orographic cloud...

<http://www.astrosurf.org/pellier/M050826-CPE>

Seeing was fairly good. The UV image enhanced considerably the Arsia cloud but the parasites lines are present (long exposure mode). However the camera now produces 12 bits raw frames and the SNR is excellent on the other images!!

○ ······ **Date: Sun, 28 Aug 2005 20:46:07 +0200**

Subject: Martian volcanoes

Hi Ralf and all, I've been thinking about those dark points lately, because they're strange - none of the volcanoes is that dark and that red, if we take a look at images taken by the probes or HST. Moreover, for example, Olympus Mons is located at the center of a bigger "diamond-shaped" albedo marking (the complete slope of the volcano) well visible on amateurs images. Well the dark point we're currently observing (as in 2003) is not at its center, but slightly drifted towards west. Finally, the dark point of "Arsia Mons" is located next to its cloud !! It can't be the mons itself... It's clear for me that we're not observing the summits but their shadows in the martian late afternoon. It's impossible to see relief on our images... By the way I've reprocessed my au-

just 26th images that also show that quite well :

<http://www.astrosurf.org/pellier/M050826-CPE>

○·····Date: Mon, 29 Aug 2005 21:03:55 +0200

Subject: Mars, august 29th

Hi all, Seeing was far as good as expected away from the jetstream but the Lumenera did survived well, much better than the webcams I have tried also that night... especially, the SNR is really good. The L frame has been shot in 12 bits and 20 % gain only (all images are in 12 bits)

<http://www.astrosurf.com/pellier/M050829-CPE>

A note on the limb artefact seen on my images : actually it's already well visible on the raw frames and then isn't a proof of overprocessing. Looks to be some artefact created by movements of the extremely contrasted limb with the seeing ? Meanwhile, I have used again the Fuji SP-4 magenta filter to get a violet image. This was the idea of **K. Okano** back in 2003... Best wishes,

○·····Date: Tue, 30 Aug 2005 21:23:37 +0200

Subject: Mars on august 30th

Hi all, here is the first test of the Lumenera under excellent conditions.

<http://www.astrosurf.org/pellier/M050830-CPE>

The technical quality of the blue images is really satisfying! I'm definitely seduced by the camera ;-) Images shot from 7,5 to 22 fps. I've tried to witness Olympus Mons's shadow visually but did not succeeded.

○·····Date: Tue, 30 Aug 2005 23:08:33 +0200

Subject: Re: [marsobservers] Re: Mars on august 30th

Many thanks Clay, those images are very close to what I see visually and this is what I'm looking for...

○·····Date: Wed, 31 Aug 2005 13:51:49 +0200

Subject: Re: Mars on august 30th

Hi Paolo :

> Did you notice the G image is more detailed than R one?? :-o

Yes, actually surface details are also visible in G (although with weaker contrast), and as the resolution of a telescope is better in G than in R, it's best detailed... the R frame would be better only in less than good seeing. This is why a good RGB image is going to provide a better resolution than any other kind of processing :-)

> The B image is the best one I've seen so far during this opposition,

> that orographic cloud is very prominent and persistent!

> What about wavelength with your violet image?

It's around 410-420 nm considering the QE of the CCD. Actually the magenta filter SP-4 from Fuji has a blue band that corresponds to a short-pass 450 nm filter with central wavelength at 390 nm. It's like the W47 in color but with better light transmission...

> Because you had a very good seeing I can't understand at all what is

> due the limb artifacted in the R image.

> Any thought?

I'm a bit short of explanations I'm afraid : The very bright limb looks to be something extremely hard to master for our cameras (same for any kind)... It looks to be related to resolution also: the greater the instrument, the smaller it is. And the longer the wavelength, the bigger!! It's quite harmful as the clouds in SPR are completely destroyed by it:

○·····Date: Wed, 31 Aug 2005 21:49:57 +0200

Subject: Re: Mars on august 30th

> Wow, is it so narrow indeed? :-o

A bit yes, but that the price to pay to conceal the surface details in blue light... Raw frames are quite more darker than any others ;-)

>> Actually the magenta filter SP-4 from Fuji has a blue band that

>> corresponds to a short-pass 450 nm filter with central wavelength at

>> 390 nm. It's like the W47 in color but with better light transmission...

> Have you a graph?

> It looks like the Schott BG12 I'm going to use, find attached the graph.

I send you both the graph of the SP-4 and the Schuler P filter I use to block the red band of the magenta filter. It's much narrower than the BG12, which is a classical blue filter no ?

> If we won't be finding a solution in a short, we'll be forced to wait
> for the nature's hand.

> The more days flow, the more the limb will lose its contrast until the
> opposition. Then we'll restart with the other limb...

Yes - and it'll be less harmful on a bigger Mars, also. It doesn't move in apparent size (as it's related to optical resolution)...

○·····Date: Mon, 05 Sept 2005 00:26:02 +0200

Subject: Re: Mars on august 26th

Dear Masatsugu, many thanks for your message! I'm coming just right now from the BAA meeting that took place this week-end in Cambridge, where I have lectured on Mars and Venus. Actually John Rogers invited me because Richard McKim wasn't able to attend himself. It has been quite a nice moment and I have met many UK observers I've long been in contact with (also Richard Schmude), except unfortunately Richard but also Damian. Just a shame that my spoken english isn't very good. About Hellas, I think we should make a difference between dust clouds (storms) and dust hazes or aloft dust. Hellas looks yellow-bright near the limb (it has been the same in august 2003) but as its surface is clearly seen it can't be a storm (and the north-west corner gives regularly false impressions as it's so bright). But I don't see no other chance to explain the color than dust - a simple aloft dust, only visible "by the side". But the dusty stage is much more mild than it was during the last days before the 2001 dust. So Don Parker and Jeff Beish's statement looks still right to me. However it may not imply that a dust event is underway. Now you ask me why in my opinion Ed Grafton and Larry Owens's images from aug. 20th look different in the SPR, well for me it's because of processing. Owens's is in RGB and the RGB is the only processing able to show the real state of the atmosphere. Images of the RRGB type are merely colorized images of the surface of Mars, this is really a different thing and I don't think that it can even be called "a color image". I strongly regret the popularity of the unconventional processings used for Mars, which for me are just bad ideas, but they give a so striking contrast (but unreal) that I'm just to understand why I have probably no chance to convince people ;-). I have written a page on my website on the topic (this is a re-written page actually)

<http://www.astrosurf.org/pellier/marsprocess>

The problem is that, for me the IR-GB, RRGB, R/IR-RGB and so on, just can't be used for analisis as the color, contrast, and even details sometimes, they reproduce aren't true and you can't trust them. Ed's separated RGB images look excellent and I really regret he doesn't use the RGB method, as well as I regret that Larry has also now began to make RRGB shots. This gives a transition to the color of Mars. I always try to reproduce the most exactly possible the color and contrast I see at the eyepiece, just to obtain a trustfull image of the planet... The color I currently see is highly dominated by orange. Do you really see it ruddy ? Of course, here differences in eye-perceptions are still possible. In 1997, with Mars high in the sky, the color for me was a subtle orange-pink tint (my drawings of the years 1997 to 2001 reproduce it quite well). But now it really looks orange, even high in the sky in a transparent night. My RGB composite at 131° of aug. 30th is extremely close to what I see. I must add that my last observations under good seeing

shew a very weak contrast of the surface details but I'm not sure it's real, as it can also come from the little size of the disk for my 8" instrument. How is the contrast right now for you? The shadow of Olympus Mons: I think it looks round just because resolution on our images is not good enough to show its precise shape (although, this may not remain true for long!). I'm now going to close as my trip really tired me physically - I've been walking for a long time in London and Cambridge to visit those appealing towns, and my feet are about to go on strike!!!! I will also follow your advice about the place of the RGB image on my sets. Best wishes,

○.....Date: Sat, 10 Sept 2005 21:30:21 +0200
Subject: Re: Mars 2005 Sept 09

Hi David (ARDITTI), The difference is not likely to be always evident between color processing of Mars, but you could read a recent page I have written for my website on the topic: <http://www.astrosurf.org/pellier/marsprocess> (the page supports strongly the RGB method) Here you'll have a complete comparison of all the possible color processings for Mars and their relative interest. You'll also see some images which show readily what's the effect of a synthesised green, a R luminance etc. About the window time available to image Mars through filters, I've found that you can go up to 8-9 mn to catch R,G,B images. My method is to take two avis of 2 mn 30 for R and G, and 3 mn for blue. There is no drift of details visible especially as the B image scarcely shows the surface ;-). Best wishes

○.....Date: Sun, 11 Sept 2005 01:04:14 +0200
Subject: Mars on august 8th

Hi all, here some B&W ToUcam shots on a very good night.

<http://www.astrosurf.org/pellier/M050908a-CPE> (visible images)

<http://www.astrosurf.org/pellier/M050908b-CPE> (IR and violet)

The NPH is more prominent at the Acidalium longitude because it's occupied by a low pressure (for the reminder of those who listened to me in Cambridge last week-end ;-)) - here is a nice example). But also because the axial tilt of Mars is a bit more favorable to see the northern polar region. Some clouds are visible there in R and IR and must be dust fronts. Shortly before my imaging session, Hellas was seen prominent and orange in color.

○.....Date: Wed, 14 Sept 2005 20:01:46 +0200
Subject: Mars september 13th

Hi all, a two hours gap in the haze gave me a chance to get some images, and seeing was good.

<http://www.astrosurf.org/pellier/M050913-CPE>

- There's maybe a very thin dust cloud near Mare Erythraeum, there's a little yellow patch near the limb

- I'm not sure if the very dark line near the NPH is entirely due to the dark line marking, because it's very dark and larger in G and B... atmospheric?

I've made also a false color composite between IR and violet image just to see if it was useful to enhance the separation of surface and atmosphere. Best wishes

○.....Date: Sun, 18 Sept 2005 15:13:56 +0200
Subject: Mars on september 17th

Fair seeing for these, but excellent transparency, I had to reduce all my usual exposure times. Also, during the last two nights with crystal clear sky, Mars looked more orange pink at the eyepiece than orange.

<http://www.astrosurf.org/pellier/M050917-CPE>

This part of the planet is free of dust clouds for me.

○.....Date: Tue, 20 Sept 2005 20:50:34 +0200
Subject: Mars on september 18th

Hi all, an excellent serie of steady and transparent nights

is running and these are from the 18th.

<http://www.astrosurf.org/pellier/M050918-CPE>

○.....Date: Thu, 22 Sept 2005 21:49:56 +0200
Subject: Re: Mars 22nd with blue sky?!

Hi Dave (TYLER), nice images with the Lum! The blue brightening is due to the presence of the morning hazes on Mars that we're now able to see as the phase is increasing. This is probably one the nicest detail visible in blue light (they're much more intense than evening hazes). They were great in 2003.

○.....Date: Sat, 24 Sept 2005 16:51:33 +0200
Subject: Mars september 19th

Hi all, here some images of the 19th.

<http://www.astrosurf.org/pellier/M050919-CPE>

The whole area north-west of Syrtir Major and Mare Tyhrrenum is largely cloudy. Do you guys find any interest to the false color image? Think it might enhance the areas where the atmosphere is clear, but a comparison between violet and R or IR images split may be more efficient...Best wishes

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

●.....Date: Thu, 25 Aug 2005 05:15:56 -0500
Subject: Mars August 25 - excellent detail

Mars in fair seeing conditions with extraordinary detail visible in fleeting glimpses; note the topographic relief detail in BLUE light in the B & W image, particularly the bright features in the Hellas and Zen Lacus regions (upper right; several isolated bright spots indicated that might be localized dust disturbances, or high cloud.

Clay SHERROD (クレイ・シェット ASO, AK 美国)

●.....Date: Thu, 25 Aug 2005 23:01:47 +0900
Subject: Re: 至急

メール有難うございました。画像の処理に手が回りません。撮ったのは7/19,20,21,22,25,8/03,05,07,14,15,になります。ω=140°Wあたりの像は8/14,15と撮ってはいますがSeeingが悪く良像ではありません。

専務理事になってしまい、雑務が多くとても困っていますが、何とかできるように頑張りたいと思っています。土・日で140°WのBを処理して送ろうと思っています。よろしくお祈りします。

○.....Date: Sun, 11 Sept 2005 23:56:32 +0900
Subject: Re: 投稿

メール有難うございました。やっと選挙も終わり、少しは時間が取れるかなと思っていますが、どうなることやら。九月は1日だけしか撮れていません。時間が取れば出来るだけ撮りたいとは思っているのですが…今日は少しは晴れ間がのぞいているようですので、19:30GMTをねらって見ます。

○.....Date: Tue, 13 Sept 2005 00:56:41 +0900
Subject: Mo11Sept_05

今朝は薄雲がかかっていたましたが、透明度は抜群で良く見えました。19:30~20:10GMTまで撮像しましたのでお送りします。今日も晴れていまして、狙ってみようと思います。20日までには今までの分を処理して送るつもりです。

○.....Date: Fri, 16 Sept 2005 02:59:49 +0900
Subject: Mo14Sept_05

昨日の分ですが、Seeing、透明度共にすぐれず、途中であきらめてしまいました。今も撮像していますが雲が多く、なかなかです。

○.....Date: Sat, 17 Sept 2005 18:13:01 +0900

Subject: Mo15Sept_05

今日は久しぶりに雲もなく晴れていますので、はりきって撮像しようと思っています。ピントが甘い像が多いのですが、Lumeneraでも考えて見ようかと思っています。

○·····Date: Mon, 19 Sept 2005 23:02:31 +0900

Subject: Mo18Sept_05

18日GMTは曇りの予報に反して、遅くまで晴れが続き最近にしてはよく撮れました。今日は昼間、大雨でした。今は晴れていますがSeeingはかなり悪く、撮れるかどうかといったところです。Paolo氏のこと、よろしくお祈りします。

○·····Date: Fri, 23 Sept 2005 23:50:46 +0900

Subject: Mo22Sept_05

今朝は0時すぎには雲ひとつ無く、Seeingもまずまずで好発進しましたが午前1時すぎには雲で覆われ、わずかに雲の切れ間から撮れるのみとなりました。きれぎれにNとRは撮れていますが良くないので一つだけ載せます。このところ天候が良くありませんね。今日も雲が多く撮れるかどうかです。

森田 行雄 (Yukio MORITA 廿日市 Hiroshima)

●·····Date: Thu, 25 Aug 2005 07:58:15 -0700

Subject: Mars - August 24, 2005

All: These are a bit late, but the images are not as good either. Seeing was quite poor so resolution not as good. Sky clock is currently calling for perfect seeing on Friday morning. We will see. Thanks

○·····Date: Mon, 29 Aug 2005 09:28:04 -0700

Subject: Mars - August 29, 2005

All: Seeing quite variable this morning, but far better than the past few days. I imaged Friday and Saturday and only could find 27 useable images out of 1200!! Hellas bright in the morning. South Pole hazes. Thanks

○·····Date: Wed, 31 Aug 2005 09:13:08 -0700

Subject: Mars - August 31, 2005

All: Some more Mars images. Poor seeing with breezy conditions prevailing. The scope was getting blown around a bit resulting in low res. noisy images. Thanks

○·····Date: Sun, 18 Sept 2005 18:17:19 -0700

Subject: Mars - September 13 and 16 2005

These are a bit late. Monsoons have ended and cloudless skies now prevail. That does not always mean better seeing however. Images seem good, but hard to get a good focus.

As Mars gets larger, I have reduced the images 20 percent to save space. Thanks

○·····Date: Mon, 19 Sept 2005 09:42:45 -0700

Subject: Mars - September 19, 2005

All: Seeing began good, but deteriorated rapidly. I omitted the last image set. The NPH is showing good development.

I see some of our good Yahoo folks have stirred the pot again! I enclose an image from last rotation on August 18, 2005. It clearly shows hints of the same phenomenon in the Mare Acidalium area and is not new to many of us. Grafton and I have imaged this area's phenomena for several rotations and the past several apparitions as well. Mare Acidalium's topography or something appears to draw the Hood farther South in this region. The Hood always seems brighter here too. The area has only shown hints of this however and has not been near as visible to us till now. The striations in the Hood are most curious.

I think that as Mars draws closer, each rotation is amazing all of us and showing us more than we have ever seen before. We are getting the first good glance of the North as the Martian declination declines and therefore are getting a

better insight of the Hood forming. For most of us we have never had the technology to image like this before. It is not necessarily anything new to Mars, but new to us!

As for dust, I still look for obscuration. We must be careful not to jump to conclusions as image processing can cause artifacts and highlights simple bright areas of Mars. We have already witnessed this several times this year.

My two cents worth. Thanks

○·····Date: Fri, 23 Sept 2005 11:33:21 -0700

Subject: Mars - September 22 and 23, 2005

All: I have continued to monitor the NPH, imaging as late in the morning as I can. Mars is getting tempting in the East when I get home from work, but will continue to image closer to Sunrise for another couple of weeks. Seeing was poor on the 22nd and a bit better this morning, however I had to image through fast moving, variable layers of cirrus clouds this morning. Hood continues to be bright in this area and showing signs of turbulence, possibly wind blown and/or terrain following. It does continue to vary in appearance and coverage from night to night. I'll try to image the area again for the next two mornings and then that will probably be it for this area. Will get another crack at it around Opposition time!

Thanks

David MOORE (テ^ゝーウ^ゝ・ム^ゝア Phoenix, AZ 美)

●·····Date: Thu, 25 Aug 2005 10:40:10 -0700

Subject: 25 August 2005 Image

Attached is my image for this morning 25 August 2005. Seeing and transparency were very poor.

○·····Date: Mon, 19 Sept 2005 08:19:19 -0700

Subject: Mars Image 19 Sept 2005

Attached is my image for this morning 19 Sept 2005. The bluish color around the NPH was very intense this morning.

○·····Date: Wed, 21 Sept 2005 10:38:47 -0700

Subject: Mars Image for 21 Sept 2005

Attached is my image for 21 Sept 2005. A white cloud seems to be visible near Edom just north from Sinus Sabaeus.

David ANDERSON (テ^ゝウ^ゝィット^ゝ・アンダ^ゝーソン SC 美)

●·····Date: Thu, 25 Aug 2005 20:38:47 +0200

Subject: Mars image - 25th August

Dear Sirs, I send you the following Mars image, taken on 25th August. All the most important data are on the image. Friendly,

○·····Date: Sun, 28 Aug 2005 17:09:02 +0200

Subject: Re: RE:Mars image - 25th August

Dear Masatsugu, Thank you for your kindness! I will certainly send you more images as soon as they will be ready! I will send them to the two different e-mail addresses you sent me. Certainly you can rotate my images to put the south pole on the top of the image! If you wish, I can do myself this operation before to send you each image, in a way to facilitate your work. After sent this message, I will certainly visit the link you sent me.

Friendly regards,

○·····Date: Tue, 6 Sept 2005 15:52:50 +0100

Subject: Mars on 6th September

Dear friends, I send you a new image of Mars, taken this morning through 8" S-C, Toucam Pro II, Barlow 2x and W 47 (violet) filter. The image seems interesting, because there should be clouds in different regions: one of them is very close to the SPC, on the right side, in this image. Friendly,

Simone Bolzoni (シモネ・ボルツォーニ Busto Arsizio 義)

<http://astrosurf.com/sheratan>

●.....Date: Fri, 26 Aug 2005 03:46:06 +0000
Subject: mars8-25-2005

Dear Masami, Attached is an image from this morning. Seeing was 8/10 and trans. 4/5 with patchy clouds. I used a 25.4 cm f/12 refl., 3x barlow, no filter, ToUcam Pro, Registax 3 and Photoshop Elements. The seeing was near perfect during twilight when imaging the moon. The images of the moon were the best webcam images I've made so far. Sincerely,

○.....Date: Sun, 04 Sept 2005 22:46:28 +0000
Subject: mars 9-2-2005

Dear Masatsugu, Attached is a better image from 9-2. I also attached two gif animations of Mars. They seem to work best with Microsoft media player. It appears that the cloud over Arsia mons is changing shape and brightening! Wish I had continued to image, however seeing was deteriorating. Already at 13" I recording as much detail as the 2003 opposition! Sincerely,

○.....Date: Mon, 12 Sept 2005 02:55:15 +0000
Subject: mars9-10-2005

Dear Masami, Attached is an image from the morning of 9-10. The seeing was 7/10 and the trans.

I may not be able to image for a few days due to the close pass of the hurricane. I also attached an image of solar AR#808 I made today. I used a 18 cm refr. 2x barlow, UV-IR block and pentaprism. Sincerely,

○.....Date: Tue, 13 Sept 2005 08:38:29 +0000
Subject: mars9-13-2005

Dear Masami, Attached is an image from this morning. Seeing was excellent 9/10 and trans. 5/5. I am tired from waking up every morning this week for Mars and observing the great active region on the sun. This morning it was worth the effort! Sincerely,

Randy TATUM (ランデー・イ・テータム VA 美)

●.....Date: Sat, 27 Aug 2005 22:43:03 +1000
Subject: Mars 26th August UT

After a long wait for clear skies, this morning proved hopeful...we even had good seeing for a change (8/10). Attached is an image from the best of 3 sets taken.

○.....Date: Thu, 01 Sept 2005 22:16:08 +1000
Subject: Mars 31st August UT

Attached is an image taken on the 31st August as marked. Seeing was fair but not great... Best wishes

○.....Date: Sat, 10 Sept 2005 23:31:08 +1000
Subject: Mars 5th September

Attached is a composite of two Mars images taken on the 5th September UT. Sorry for sending them so late; haven't had a chance to process these earlier..Seeing was only average..maybe 5-6/10.. Best wishes

○.....Date: Thu, 22 Sept 2005 19:13:51 +1000
Subject: Mars 20th September

Attached is a two image set of Mars taken on the 20th September. Seeing was fair, but persistent high cloud meant that these images were taken at near maximum gain for the ToUcam.... Best wishes

Maurice VALIMBERTI

(モリス・ウァリムベルティ Mebourne 澳)

●.....Date: Sun, 28 Aug 2005 02:56:26 +0900
Subject: 2005/08/26 18:51

Dear CMO, An image from: 2005/08/26 18:51 UT
Comments: Clouds can be seen over the NPH. Visually, the morning limb appeared blue in the Northern Hemisphere (seen in the image too). Seeing = 5/10, Transparency = 5/6. Best regards

○.....Date: Mon, 29 Aug 2005 20:25:13 +0900
Subject: Dust in Argyre : Another New image for

2005/08/26 18:45, please replace

Dear CMO, Another image from 2005/08/26 from 18:45 UT. $\omega=010^\circ W$. The reason I send is that I believe there is dust showing in Argyre, please compare with my 18:51 image. Best regards,

○.....Date: Thu, 15 Sept 2005 00:56:59 +0900
Subject: 2005/09/13 18:20

Dear CMO, An image from this morning: 2005/09/13 18:20 UT. Comments: Morning limb very bright, Hellas area which is about to swingaround on the limb was very reflective and bright. Blue clouds seen on the NPH - confirmed visually with #38A blue filter.

ロブ・ヘフナー (Rob HEFFNER 名古屋 Aichi)

●.....Date: Wed, 31 Aug 2005 10:22:45 +0200
Subject: Re: Mars on august 30th

Hi Chris, I love this set of images, bravo! Did you notice the G image is more detailed than R one?? :-o The B image is the best one I've seen so far during this opposition, that orographic cloud is very prominent and persistent! What about wavelenght with your violet image? Because you had a very good seeing I can't understand at all what is due the limb artifacted in the R image. Any thought?

P.S.: Over the next weekend the seeing is predicted very good here, too. Very oddly, this will be coinciding with the First Light with my scope, I'm a little worried about...

○.....Date: Wed, 31 Aug 2005 15:31:35 +0200
Subject: Re: Mars on august 30th

Christophe Pellier wrote:

> Hi Paolo : >> Did you notice the G image is more detailed than R one??
> Yes, actually surface details are also visible in G (although with
> weaker contrast), and as the resolution of a telescope is better in G
> than in R, it's best detailed... the R frame would be better only in
> less than good seeing. This is why a good RGB image is going to
> provide a better resolution than any other kind of processing :-)

You're totally correct! Now someone we well know is even more advised with G filter using...

>> The B image is the best one I've seen so far during this opposition,
>> that orographic cloud is very prominent and persistent!

>> What about wavelenght with your violet image?

> It's around 410-420 nm considering the QE of the CCD.

Wow, is it so narrow indeed? :-o

> Actually the magenta filter SP-4 from Fuji has a blue band that
> corresponds to a short-pass 450 nm filter with central wavelength at
> 390 nm. It's like the W47 in color but with better light transmission...

Have you a graph? It looks like the Schott BG12 I'm going to use, find attached the graph.

>> Because you had a very good seeing I can't understand at all what is

>> due the limb artifacted in the R image.

>> Any thought?

> I'm a bit short of explanations I'm afraid :-(.
Me, too. Do not worry.

> The very bright limb looks to be something extremely hard to master

> for our cameras (same for any kind)... It looks to be related to

> resolution also : the greater the instrument, the smaller it is. And

> the longer the wavelenght, the bigger !!

Yes, I went about to the same conclusion. The guy I mentioned a while ago has no problem, this is in agreement with your statement.

> It's quite harmful as the clouds in SPR are completely destroyed by it
If we won't be finding a solution in a short, we'll be forced to wait for the nature's hand. The more days flow, the more the limb will lose its contrast until the opposition. Then we'll restart with the other limb...

○.....Date: Thu, 01 Sept 2005 09:54:39 +0200
Subject: Re: Mars on august 30th

Chris, Thank you for the graphs sending to me! The response in the blue band it's the same, so I can't understand why you're using both the 2 filters together when the Purple filter by alone allows the same result and let you have more signal... The BG12 filter by Schott is a deep blue filter,

same wavelength as W47 Wratten but with an IR blocking built-in.

○.....Date: **Mon, 05 Sept 2005 11:30:50 +0200**
Subject: Re: Mars images (August 28th, 2005.)

Hi Damian, That's an impressive set of images! This is my favourite side of Mars: the NPH, vulcanoes and clouds everywhere! Your colors are finally OK, no need of a new Barbados trip. I could suggest you to save money for purchasing a genuine planetary scope! :-)) Nonetheless, it's too bad you cutted away a relevant portion of the martian disc on its left, couldn't you avoid that? :-((Still problems here both with my new scope and weather, frustration is raising to the stars...

○.....Date: **Tue, 20 Sept 2005 14:44:33 +0200**
Subject: Re: Mars 20th Sept

Hi Dave, I'm more than amazed by the velocity you learned to use your newest LU075!! 8-O The Mars image has nothing to be compared with your latest ones recorded with the Atik, this is great indeed! The Petavius image is also very good, congratulations!

Here both the sky and the seeing are always missing, the situation is very desperated...

○.....Date: **21 Sept 2005 19:52:01 -0000**
Subject: Re: From CMO/OAA

Salve, Grazie per la sua email! On this moment I'm out of office, I'll reply to your email as soon as I'll be back beginning from Sept. 28th. Grazie e a presto.

Paolo LAZZAROTTI (ハ オロ・ラッツァロツティ Massa義)

●.....Date: **Sun, 28 Aug 2005 01:07:55 EDT**
Subject: Mercury: August 27, 2005

All - Mercury, the forgotten planet, was imaged August 27th between 15:00 UT and 15:30 UT when it was on the meridian in broad daylight. The seeing was OK with but not great. A closer look will show possible dark features in the southern hemisphere. At CM - 104 degrees longitude, these may be Solitudes Martis and Jovis. See: <http://hometown.aol.com/frankj12/mercuryindex.html>

Also, you will see a similar image that was taken Sept. 12th, 2004 when comparing with this recent one. Note the dark feature in the south.

○.....Date: **Sun, 28 Aug 2005 15:54:49 EDT**
Subject: Mars: August 28, 2005

Hi! I have attached my latest images of Mars August 28th to be posted. Thanks,

Frank J MELILLO (フランク・メリッロ NY美)

●.....Date: **Mon, 29 Aug 2005 15:33:59 +0100**
Subject: Mars 29th Aug

Hi Guys, We have had good seeing here for the past 2 dawns, it being particularly good just before sunrise this morning. I thought I would put this one out while it is still current. I still have plenty to process from yesterday and this morning. Note the cloud over what I believe to be Tharsis and slopes of Nix Olympica catching the low Sun. The colour image is a mix of RsGB and toucam colour, with no Lum. C11 f46 Toucam 840 in Band White mode with Trutek type 1 RED and type 2 BLUE for the filtered images and with IR block only for a toucam colour image.

○.....Date: **Sat, 10 Sept 2005 17:26:46 +0100**
Subject: Mars 9-9-05

Hi Guys, I have been off line for a week and I still only have an intermittent connection. After a few days away from the scope I was amazed to see how large and how full Mars had got. These were taken with a true green filtered image. Toucam 840 in Black and White mode, with filtered.

○.....Date: **Mon, 12 Sept 2005 09:40:28 +0100**

Subject: Mars sept 09

Hi guys, Many apologies for leaving off the filter data from the Mars Sept 09 images. The camera was a toucam 840 with C11 @f46 in Black & White mode. I have had a lot of computer plus mail link trouble for the past week, I hope it is all now working properly and I can focus on my imaging. I thought of you yesterday as we drove past Eaton and Windsor Castle on our way to Thorpe Park, with Damian Peach and his girlfriend.

○.....Date: **Mon, 12 Sept 2005 22:44:05 +0100**
Subject: Mars 7 Sept

Hi Guys, Thanks for the images I had in my inbox whilst off line. Here is a set from the 7th C11 @f47 Toucam 840 in B and W mode. Trutek type 1 red (no IR block) and type 2 blue (with IR block). Synth Green.

○.....Date: **Tue, 13 Sept 2005 17:51:40 +0100**
Subject: THE SUN

Hi Guys, Someone loaned me an *H Alpha* scope for a few days. The prominence was taken a focally with a Nikon coolpix hand held to a 1/2 eyepiece and the flare was with the same set-up but with a toucam 840. Note the vertical "striations" in this image, this prevents sharpening. I have noted this effect before when trying to webcam off a Herschel wedge with polarising filters, any theories would be appreciated as to the cause of the effect. I believe you had a similar problem Sean when trying to webcam off a PST?

Today's sunspot was with a 6 inch mak and toucam @ f12

○.....Date: **Sat, 17 Sept 2005 18:06:39 +0100**
Subject: Mars 17th Sept

Hi Guys, Seeing was fair this morning in spite of being under the jetstream. The toucam performed far better though in the red than G and B hence the L rgb. Hellas



certainly looks like a *burning cauldron of Hell* !

○.....Date: **Sun, 18 Sept 2005 22:14:00 +0100**
Subject: Mars 18th Sept 01:11

Hi Guys, We had better seeing than it looked this morning, it just seemed to process well, especially in the red inc'ir. I like the persistent cloud on the sunset side of the SPC.

○.....Date: **Tue, 20 Sept 2005 13:08:24 +0100**
Subject: Mars 20th Sept

Hi Guys, We had a break in the clouds in the early hour. Enough, JUST, to try out a Lumenara 075 I managed to get enough to scrape together an RGB and one from the tempting moon nearby. It being Petavius night and all.

○.....Date: **Wed, 21 Sept 2005 18:19:45 +0100**
Subject: Mars 21Sept

Hi Guys, Here is a set of Mars images from this morning. Seeing was fair but transparency was poor. Two circular areas near Trivium and Chaos are shown quite nicely, (which is a good name for my observatory). The C11 was

fitted with a 2 inch diagonal putting it at $f11$. A $3\times$ televue is stretched to 120mm to about $5.3\times$. The approx final f ratio was $f 58$. Camera Lumenara 075 with Trutek Type 1 red and type 2 green and blue filters.

○·····Date: Thu, 22 Sept 2005 13:43:47 +0100
Subject: MARS BLUE FOG

Hi guys, Mars took on a different appearance last night. In the blue filter there was a broad bright limb lightening, resulting in this RGB. it appeared with two different cameras, so it was not "me". More images later

○·····Date: Thu, 22 Sept 2005 18:49:09 +0100
Subject: Mars 22nd with blue sky ?!

Hi Guys, Following up on this mornings image. The blues seem to show some rotational increase in the blue area, or it may be increased in apparent width due to altitude increase. Just think this is what terraforming might look like from here! C11 $f55$ Lumenara 075 with ATK filter block and trutek filters. The increased local brightness of the blue image was striking on screen and also showed with ATK.

○·····Date: Fri, 23 Sept 2005 21:41:12 +0100
Subject: Mars 23 Sept

Hi guys, Here is a set from the early hours the blue mist is still there. Seeing was very variable throughout the session never stable long enough to cover an rgb.

○·····Date: Sat, 24 Sept 2005 04:13:03 +0100
Subject: ERROR ON CMO WEB PAGE

Hi guys, I have just noticed that you have put Martin Mobberley's Mars image with My Name on it for my 23rd Sept set of images. This is the image that it should be. Thanks for all your work Guys. Best wishes

○·····Date: Sat, 24 Sept 2005 23:11:58 +0100
Subject: Mars 24th Sept

Hi Guys, The seeing was poor this morning but one reasonable red from 4 rgb sets came out of it. The bright limb is still misty. Best wishes

Dave TYLER (テウァイト・タイラー Bkh 英)

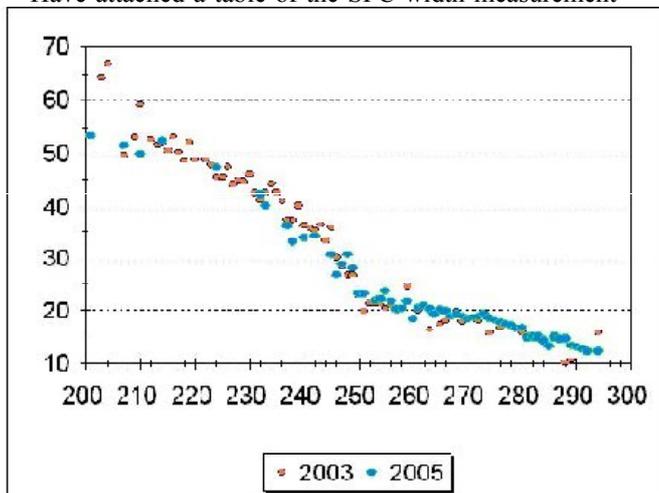
●·····Sent: Monday, August 29, 2005 11:26 PM
Subject: Mars image today at 4:21 UT

I send two images taken from Santander, Spain at 4:21 UT. Location: $43^{\circ}28'N$; $3^{\circ}48'S$. Telescope Mirage 7 180/1800 Barlow X3 Atik 1C camera Seeing 5/10

Francisco San EMETERIO SANTOS
(フランシスコ・サン・エメテリオ Labastida 西)

●·····Date: Mon, 29 Aug 2005 12:47:53 -0400
From: "Jeff Beish"
To: "Don Parker" Cc: "Masatsugu MINAMI"
Subject: SPC widths

Have attached a table of the SPC width measurement



from CCD and web-cam red-light images. The plot compares the 2003 and 2005 SPC widths.

○·····Date: Mon, 29 Aug 2005 12:53:13 -0400
Subject: Re: Mars - August 29, 2005

Dave (MOORE), the SPR haze and bright Hellas suggest some dust aloft. Usually when a dust clouds occurs on Mars one or both of the polar regions will suck up dust and a haze will develop. Should watch Hellas closely. Watching the hurricane on TV with clear, blue sky over us. Strange -- we usually get hurricanes first : Of course, the hurricane season is just started -- September 10 will be the peak number date.

○·····Date: Mon, 12 Sept 2005 15:13:53 -0400
Subject: Re: Changes across Deucalionis Regio

Actually, Deucalionis Regio, Hellespontus and Pandora Fretum appear more "normal" this apparition that it did in 2003. I doubt there is enough dust on the entire planet to disturb an area that large. Dust storms will change smaller areas for a while, but the features will usually return to their more "normal" appearance by the next apparition. Sometimes Serpentis Mare will darken and extend into Deucalionis Regio quite a bit to darken the area, and that is what it appears to me happened in 2003. The dust storm that began on July 01, 2003 disturbed those areas and darkened the eastern Deucalionis Regio and Serpentis Mare for months. However, two Earth years later is a long time on the Red Planet. - Original Message --From: Damian Peach

○·····Date: Thu, 15 Sept 2005 12:52:46 -0400
From: "Jeff Beish" To: "Masatsugu MINAMI"
Subject: small dust cloud in Isidis

Henrik Brahtz sent me a picture taken by Danish astroimager Jesper Soerensen, taken sep. 14 00:02UT of a small dust cloud east of Syrtis Major in Isidis with an interesting streak from Crocea up into Syrtis Major. This dust cloud appeared about the same seasonal period in 2003 and can be seen in my chapter:

http://www.tnni.net/~dustymars/2003_DUST.htm

I posted the image in the photo section with credits vat marsobservers@yahoogroups.com.

○·····Date: Fri, 16 Sept 2005 16:40:34 -0400
Subject: Re: PEACH Mars images (September 13th, 2005.)

Edom appears to be a bit foggy too.

○·····Date: Sun, 18 Sept 2005 19:18:51 -0400
Subject: correction: SPC widths

Masatsugu, I made a mistake in compiling the SPC widths so put together afile that you can read at:

http://www.tnni.net/~dustymars/SPC/Mars_SPC.htm
that will make more sense. Please let me know what you think.

○·····Date: Mon, 19 Sept 2005 10:27:57 -0400
Subject: Correction to correction - SPC

I messed up the spreadsheet program without knowing it, so here is the real SPC widths:

○·····Date: Mon, 19 Sept 2005 13:28:53 -0400
Subject: Re: Mars - September 19, 2005

Dave (MOORE), those images of yours and Ed's are remarkable. The cloud that appears wrapped around the NPR looks like what I used to call a "frontal" or "wave" cloud. I have observed similar cloud waves for decades and drawing them as such, but they are seldom imaged, especially with such detail. Colors are just great too. The hood is apparent and much of Mare Acidalium is dark indicating the cloud is a large wave or arc of clouds. In other words, this cloud formation reminds me of satellite images of Earth showing cold fronts from the polar regions that will cause water vapor to condense and form clouds in the front boundary. It is not quite that simple but close. "The Hood always seems brighter here too" and your recognizing "striations in the Hood" are intuitive observations of the Martian meteorology

and should be discussed more.

With all my car problems and hurricanes brushing south of us it is hard to get up the energy to uncover my telescope and begin observing Mars. I wish someone would televise all the excitement for all the homeowners in central Florida that have damaged or missing homes after four strong hurricanes that hit us last year. We had three hurricane eyes cross over our little town, but we had only minor damages. Some of the homes up north of us have had blue tarps since last September and FEMA has dropped support for those people - even though many of them received nothing. So, if Rita blows the Keys over -- where-oh-where will the Winter Star Party be held, is the cry - and if it turns north then I hope this time people in NO will heed the warnings that they got from every source before Katrina hit. Anyway, keep up the magnificent work, and Ed too.

Jeff BEISH (ｼﾞｪﾌﾞ・ﾋﾞｰｼﾞｭ FL 美)

●.....Date: **Mon, 29 Aug 2005 13:38:20 -0500**
Subject: **images.**

Dear Sirs: I am sending 2 images taken the 31st of July and the 19th of August 2005. The instrument used was a 254mm f/20 TEC Maksutov. Best regards,

Eric ROEL SCHREURS (ｴﾘｯｸ・ﾛｴﾙ Mexico 墨)

●.....Date: **Wed, 31 Aug 2005 14:15:15 +0200**
Subject: **Re: RE:Mars 29 august cm 92**

Hello Masatsugu, Yes very gladly, I do have some more images enclosed from previous dates hope you can use them. I observe from Arnhem city in the Netherlands

○.....Date: **Wed, 31 Aug 2005 20:33:08 +0200**
Subject: **Mars 31 august**

Hi, This morning seeing fair but with few good frames in it, but it shows the Arsia orographic cloud and some volcanos. IR image still worsen as the red channel. the haze around the spr is nicely visible. groeten

<http://home.tiscali.nl/planetadelaar/mars20050831a.jpg>

○.....Date: **Sat, 10 Sept 2005 20:15:45 +0200**
Subject: **Mars 7 sept with my c9,25**

Hi all, Mars first in terrible seeing conditons later to become low fair, the reason I post the first one is that NPC is pretty large now and prob. showing it's maximum extend at thi cm and even in terrible conditions the capture of the line Oxus just down left from Margaritifier Sinus to Oxia Palus, it was thanks to the IR-pass it came through. best regards

O yeah sold my Mak and bought a c9,25 it was first light through this scope and the quality is excellent! hope conditons iprove next week

<http://home.tiscali.nl/planetadelaar/mars050907.jpg>

○.....Date: **Wed, 14 Sept 2005 23:14:12 +0200**
Subject: **Mars 13 septembre**

Hi all, Here a capture of Syrtis Major and Hellas, no dust present only some light blue haze.

○.....Date: **Sun, 18 Sept 2005 22:59:22 +0200**
Subject: **Mars 18 sept....dust...?**

Hi all, Did get chance to finish some avi's, and the bright spot is there easy in blue but even in IR one can see a brightening this should ad some evidence for dust and/or a cloud. best wishes

<http://home.tiscali.nl/planetadelaar/mars20050918.jpg>

Jan ADELAAR (ﾔﾝ・ｱﾃﾞﾗｰﾙ Arnhem 荷蘭)

●.....Date: **Wed, 31 Aug 2005 11:41:22 +0200**
Subject: **Mars 2005-08-30**

Dear Sirs, after a long periode of very bad weather the air became steady at the morning of Aug. 30th, so that I could go close to the limit of my 180mm optic.

○.....Date: **Thu, 8 Sept 2005 12:21:35 +0200**
Subject: **AW: Mars 2005-09-06**

Dear Sirs, my first attempt to image Mars with a big optic, but seeing conditions were not good enough for good resolution. Visually the different redbrow colours, blending white polar cap and the pale whiteblue polar haze were impressive. Hope better moments will come! Best Regards,

Michael KARRER (ﾐﾁﾔｴﾙ・ｶｯﾗｰ St Radegund 奥)

●.....Date: **Thu, 01 Sept 2005 00:27:30 +0100**
Subject: **Re: Mars Aug 29**

Dear Masatsugu Minami, Here are the images. You are welcome to post any you like in your excellent Mars Gallery. I will send you future images of Mars that I take.

Best wishes, Yours,

○.....Date: **Thu, 01 Sept 2005 21:17:12 +0100**
Subject: **Mars on August 30**

Dear All, An extensive set of Mars Images from August 30. This shows all the partial images (each a stack of about 1800 frames) that have gone into the final composites, for those who are interested in these details. Essentially, 3 times are represented about an hour apart in the 3 rows. The images left to right are a colour Toucam, an IR-filtered Toucam, a blue-filtered ATK image with IR blocked, the IR(synth.G)B composite (L=IR), and a 50/50 mixture of that with the Toucam colour image. This last is my final result, which I think best combines the detail of the IR image with the colour and smoothness of the Toucam colour image. The blue images show little detail typically, hence I do not necessarily use a different one for a different IR or R timing. Notable features are Olympus Mons and its aureole, just visible in the later images in the lower right, and the Arsia Mons orographic cloud, a light patch in the centre of the last set, showing light in the blue image. Seeing was fair. Yours,

○.....Date: **Wed, 07 Sept 2005 23:36:34 +0100**
Subject: **Mars Sept 07**

A set of Mars images from London from this morning, again showing a comparison between filtered IR/B images (with synthesised G), normal Toucam colour images, and a final result obtained by combining the two. The IR images obtained with a Toucam, the B with an ATK. All exposures 150s at 10fps, with a shutter speed of 1/50th s. Seeing fair.

Martin Mobberley obtained very nice images with his Luminera camera at the same time.

○.....Date: **Fri, 09 Sept 2005 23:34:23 +0100**
Subject: **Mars 2005 Sept 09**

Conditions were fairly good from London this morning. I tried on this occasion taking true green images with a green filter, as **Christophe Pellier**, of SAF, had expressed the opinion that the method of the synthesised green was unsatisfactory, as it would not reveal yellow dust storms, if such occurred.

Hence I took 5 different types of AVIs: unfiltered Toucam, IR-filtered Toucam, R-filtered ATK, G-filtered ATK, B-filtered ATK. The top two images on the right are combinations of straight Toucam and ATK LRGB images.

I did not find that use of the true green gave noticeably better results than the synthesised green method, and it has the disadvantage of spreading the imaging out over a longer period, so making a combination less precise for a particular time.

The lower image on the right was produced by a different method, giving a straight Toucam shot a luminance derived from an IR filter on the Toucam. This is an improvement on the straight Toucam, but perhaps not as nice as the full

Toucam-ATK combination.

○·····Date: Sat, 10 Sept 2005 22:53:25 +0100
Subject: Re: Mars 2005 Sept 09

Thanks **Christophe** for pointing me to your page with your clear demonstration of the features of various types of colour synthesis with CCDs. I agree with much of what you say, above all that the "secret" of good planetary imaging is to get good, sharp raw videos - there is no processing which can make up for lack of information in the original images, and there is no magic trick to be learned, contrary to what many think - apart possibly from the simple one of judicious use of wavelet or unsharp mask sharpening to reveal the detail present in the image. It is all down to seeing, optical quality and adjustment, and persistence.

Thanks also for the details of how you time your images.

○·····Date: Wed, 14 Sept 2005 18:29:40 +0100
Subject: Mars Sept 13

Some nights the seeing seems good visually, and images look sharp through the eyepiece and on the computer screen, but they don't turn out particularly well.

I think this happens when we get what **D. Tyler** calls 'morphing' seeing, when the planet keeps changing shape, a thing that the brain can cope with better than the webcam/stacking software. This was the case on the 13th when this is the best I could get.

It suggests that sometimes there is still a role for planetary drawing. The drawings of Mars produced recently by **Nicolas Biver** at Versailles are absolutely lovely.

○·····Date: Sun, 18 Sept 2005 21:07:03 +0100
Subject: Mars Sept 17

I was very impressed with Dave Hunter's Mars images taken from York with a long-focus Newtonian. He was using an ATK with an IR filter for the red component of the image, so I thought I would try this with a Baader IR-R filter. Here are the results, in two images an hour apart. The first uses a true green, the second a synth. green. There is a slight difference, however, I remain of the opinion that the two-colour method produces acceptable and useful results on Mars. From a scientific perspective, I don't think the objective in a CCD image need necessarily to be to reproduce the colour response of the human eye - it might rather be to show non-visual information, or a combination, as is normally the case. If a direct imitation of human wavelength response were being aimed at, the IR signal to the CCD should be completely filtered out, which would give less sharp images. Most imagers do not do this.

○·····Date: Fri, 23 Sept 2005 01:11:19 +0100
Subject: Animation of Mars on 22 Sept

Here is another animation, this time consisting of 5 images evenly spaced between 01:10 and 01:54 UT on 2005 Sept 22. Technique is the same as before, synth. green and red-IR Luminance used. Interesting features are the blue haze near the N pole, the very small size of the S polar cap compared to only a month ago, Syrtis Major coming round the limb, the so-called 'Gomer prongs' near the meridian, and the fine detail showing up in the S following quadrant, S of Mare Tyrrhenum. I also suspect one can see mountains in Elysium (the area toward which the 'prongs' are pointing) producing shadow as they approach the terminator.

The animation wobbles because the orientation of my camera changes slightly between exposures. I know how I am going to fix this.

254mm D-K Cass. @f50. ATK 1HS II camera, Trutek filters, IR blocked only in blue exposures.

David ARDITTI (テダウ イットノ アーテイチ Edgware 英)

●·····Date: Wed, 31 Aug 2005 21:25:10 -0500
Subject: Re: FW: Martian volcanoes

Dear Masatsugu, I just received the following message from the person who is coordinating the AstroAssembly lectures at Brown University. As you will see, the subject they were interested in having me lecture about was Lowell in Japan. Wish you were able to be there, but I shall repeat the lecture for the colloquium at UCSC in October and hope you can hear it there -- and add your comments. ···

○·····Date: Wed, 7 Sept 2005 12:33:11 -0500
Subject: Fw: Your Lowell in Japan article for S&T

Dear Masatsugu, Sorry to interrupt -- I know you are busy with Mars and probably getting ready for your visit to the U.S. Sorry to welcome you to a country so fraught with problems at the moment, but we will be aloof from them in our aerie high in the mountains. Mars has been starting to show excellent detail in my C-11 so I am sure we will be very successful with the Great Refractor.

Meanwhile, I have the following message from the *Sky & Telescope* editor who is doing the Japan article (it will appear in the December issue). He wants captions for the photographs and I have tried my hand at some of them. However, I don't know all the details -- for instance, about the group photograph all the names, and the Genial Inkyo everything that should be said, including the name of the Buddhist monk who showed us the manuscripts. Could you address these particular items for me, and any other details you want to add regarding the other photographs would be appreciated and I can add them to mine. All the best, yours,

○·····Date: Sat, 10 Sept 2005 14:40:25 -0500
Subject: Re: RE:Fw: Your Lowell in Japan article

Dear Masatsugu, I sent a number of photographs, including some more appropriate ones, to the editors of *Sky & Telescope* ···. There were others that I thought would be more appropriate, but I have had limited input -- the Saheki drawings will be featured in the sidebar. I have drawn up a small map of Lowell's route for inclusion with the article.

As usually with large media, the author proposes but the editor disposes -- though I prepared the draft and submitted possible illustrations ages ago, they have waited to the last minute to put it all together, so we will now be forced to accept whatever they have on offer. ···

Looking forward to seeing you soon,
○·····Date: Thu, 15 Sept 2005 21:57:32 -0500
Subject: Fw: Your S&T article on Lowell

Dear Masatsugu, I hope you can look over the edited version of the Lowell article -- they have obviously waited to make sure they have every opportunity to get it right.

○·····Date: Fri, 16 Sept 2005 17:29:53 -0500
Subject: Re: RE:Fw: Your S&T article on Lowell

Dear Masatsugu, Thank you for the comments on the article -- I shall do the best to include the changes you propose. I regret that I did not have this text earlier to peruse, and it is about to go to press now, but I hope to make the necessary changes. The material will be treated at greater length in the Mars book I am working on presently.

I imagine you are very busy indeed with the editions of the CMO -- and sound exhausted. I have also been quite busy with my professional and other responsibilities but have now established most of our plans for travel and observing in California, and hope that it will be a most enjoyable experience for you. I would say the main thing not to forget is to bring heavy clothing as we will be at altitude at night in October, which even in California can be uncomfortable. With my best wishes,

○·····Date: Fri, 16 Sept 2005 17:59:24 -0500

5th Annual Meeting of the Lowell Society of Japan will be held on 22 October 2005 at Tokyo

日本ローエル協会の平岡厚、横尾広光両氏からのご連絡によると、今年のローエル協会年会が十月22日に東京の学士会館で開催されます。近郊の方は奮ってご参加下さい。●……ご無沙汰しています。お元気ですか。穴水ローエル会議では本
当に有難うございました。2005年の年会は10月22日(土)1h~4h 学士会館(東京神田)で、話は楠家重敏さん(杏林大・外語、チ
ェンバレン、アジア協会研究家)の『ローエルの“能登”国内旅行問題について』をmainにします。ローエルの写真(ローエル
天文台のHPから富山八雲会が入手)の話を佐藤利男さん他が分析する話もあります。どうぞご出席下さい。…藤田良雄先生
はお元気で、天文学会100年史のインタビューなどありました。…

横尾 広光 (Hiromitsu YOKOO, 杏林大、Tokyo)

Subject: Re: RE:Fw: Your S&T article on Lowell

Dear Masatsugu, I have sent Edwin Aguirre at S&T all the changes to the text suggested by you -- I trust they will be able to make them. I wonder if you could send him hi-res images of the Inkyo and a suitable one of the Mars Section of the OAA at Animadzu that includes Asada's image as well. I hate to be a pest -- but I think we can still rescue the article from this standpoint.

○……Date: Sat, 17 Sept 2005 12:09:32 -0500

Subject: Re: RE:RE: RE:Fw: Your S&T article

Dear Masatsugu, I have sent Edwin a picture I took of Asada and his wife and also a hi-res scan of the Genial Inkyo and encouraged him to use these in place of the others they have planned. I hope that this will happen.

I am also working out details on our trip at this time -- there is a lot to do -- and will send you a query or two next few days. Probably these details do not much interest or concern you but I will keep you informed of what is happening. Please rest as much as you can -- take care, my friend, and thank you for your inputs on the Japan article for S&T. It is sometimes difficult with editors.

○……Date: Wed, 21 Sept 2005 10:54:08 -0500

Subject: Fw: URGENT: edited version of S&T articles

Dear Masatsugu, I'm forwarding this to you from Edwin Aguirre -- I'm afraid I'm at an impasse here.

○……Date: Wed, 21 Sept 2005 15:57:24 -0500

Subject: Re: RE:Fw: URGENT: edited version of S&T...

Dear Masatsugu, I just received this from Edwin Aguirre -- good news! All is well. I'm off to interviews at the Minneapolis VA Hospital. Hope you are well, and I am sorry again to trouble you with all these requests.

All my best wishes, yours,

Bill SHEEHAN (ウィリアム・シーハン MN 美)

●……Date: Thu, 1 Sept 2005 08:19:06 +0200

Subject: Mars 2005/8/30

Hi, here Mars from Holland. C11 and 5x barlow and ATK-2HS, RGB filters. Regards

Richard BOSMAN (リシャルト・ボズマンArnhem 荷蘭)

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

●……Date: Fri, 2 Sept 2005 10:45:34 +0200

Subject: Re: Mars on august 31th →Sept. 2

Nice images, once more, Christophe! Did you observe this morning September 2.2 UT? I had excellent images, in Versailles in my 40.7-cm (×700) newtonian - probably the best I ever had: diffraction rings around stars were well visible and relatively stable, seeing perhaps in the 0.3-0.4" range. I could clearly see visually all the details you have on your webcam images. At some times the image what nearly frozen with high contrast. I had also good images on August 28, 29 and 31... I will send my drawings later, once scanned, and probably after coming back from the DPS meeting in Cambridge next week.

Ophir was relatively bright, and I saw two white elongated spots to the north pole, looking like the edge of the North polar cap or bright NPH (CML 70,80-90 and 55degN).

○……Date: Tue, 6 Sept 2005 12:15:04 +0200

Subject: Re: Mars on august 31th/Sep. 2

Dear all, This is just to send you the drawings I did a few days ago under the good seeing conditions. I may answer questions a bit later as I am now busy with limited connection at the DPS meeting in Cambridge. Clear Skies,

○……Date: Mon, 12 Sept 2005 19:45:15 +0200

Subject: Mars on september 4 and 11

Dear all, Following my mail last week sent remotely from Cambridge, here are 2 more drawings made under relatively good seeing (worse on the 11) - just before and after the DPS meeting... On Sept. 11 the NPH was quite bright and/or contrasted with respect to Mare Acidalium, although maybe too light on my drawing (not as much as the SPC?)

Clear Skies,

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

●……Date: Mon, 05 Sept 2005 00:20:39 +0900

Subject: 火星画像 (9月3日) 報告

村上様、南様。東京の岡野です。遅まきながら、火星の撮像を開始しまして、昨日、撮れましたので取り急ぎお送りいたします。

2003年の大接近とときから、今回は新兵器が二つ増えております。高感度・高速転送のST-402 XMEカメラと、ステライメージ5のマルチバンドシャープフィルターです。そのおかげで、まだ視直径が小さいのに意外によく写りました。しかし、これからシーイングは悪化していくので、10月にどこまで写るか、ちょっと心配です。出来る限り時間を見つけて撮影しご報告するようにいたします。

ST-402XMEは、全波長域で高感度であり、フィルターワークが有効な火星用としては最強のカメラであろうと思っています。エド・グラフトンも同じ選択をしたのですね。画像処理は、マルチバンドシャープ『天文ガイド』で紹介した多段PSF (ボケ関数)の最大エントロピー法を組み合わせています。

また撮れましたらお送りいたします。参考になりましたら幸いです。

○……Date: Wed, 07 Sept 2005 22:48:03 +0900

Subject: Re: 火星画像 (9月3日) 報告

南様。私の画像が研究にお役に立てば光栄です。ご質問いただいた件、すべてが答えられるわけではないのですが、理解できる範囲でお答えしてみます。

Mn> 180というのはプラネットマスターで落とした後の画像の数でしょうか? それとも全体でしょうか? シーイングが好いようですから、歩留まりは好いはずだと思いますが。

プラネットマスターで撮ってはいますが、今回はシーイングがよかったので、事実上解像度判定はせずにすべて記録し、後で、ステライメージ5に搭載された同様の解像度判定機能で「解像度上位180コマ」を選定して合成しています。シーイングがよかったので、歩留まりは85-90%です。各色200-230コマを撮像しています。

Mn> 1) これが私の現在の関心事なのですが、南極冠の周

りは可成り faded です。ところが肉眼では然程ではないのです。夕方の方は確かに dusty に見えますし、朝がたも faded です。しかし、ヘッラスの南は肉眼では案外暗いのです。この南極冠周りの faded については、前から気になっていることで 20 August の Larry Owens の像などにまるで法王のキャップの様子に写っています。ところが、同じ日の Grafton の像ではやや印象が違うと思うのです。R では確かに帽子のようになっていますが、B では真ん中が途切れているような気がします。ペリエの意見ではグラフトンは RGB ではないからではないかというのですが、どうでしょうか。この邊りはずもともと 13 Aug の Peach の像には白靄が掛かっているようになっていますが、このよってくるところは全く分かりません。夕方の方は丁度南極冠の早く溶けた部分に相当し、ここには黄塵が立ったことがあると思います。ピーチの頃は Novus Mons が消失した頃でそれと関係があるかも知れませんが、よく分かりません。もし、Owens のように帽子のように見えれば、肉眼では帽子が浮き上がって見えると思うのですが、そんなことはないのです。

おそらく、カメラの感度特性が非常に影響していると思います。私の RGB 画像を添付しました。これから判断して、法王キャップは、赤外成分が多いほど写らないのではなからうか、と感じます。私の R は赤外を大幅に透過させていますので、南極付近が非常に暗いです。緑では法王キャップが出てきます。ToUcam は、緑に感度ピークがありますから、法王キャップは冷却 CCD より強く出ると思われます。

> 2) 以上は南極冠の見え方とも関係するかも知れません。肉眼では南極冠は際立ってクッキリし、輪郭にボケがないのですが、岡野さんの南極冠は意外と印象が違うという感じです。尤も内部の描寫もあるようですから、岡野さんの像の方が詳しいのですが、輝度の描寫という点ではどうでしょうか。このことと 1) の問題と関係あるでしょうか(肉眼では南極冠が明るすぎて帽子が浮き上がらない、とか)。

RGB 別の画像を見ていただくとよくわかりますが、赤外迄入れた画像は南極冠が暗く写ります。というよりは他の部分が相対的に明るく写るのだと思います。緑を中心に感じる眼と、赤外まで使っている CCD 画像との特性差も原因ではないでしょうか。

Mn> 3) 白色の描寫ですが、北極雲がひどく蒼いように思いますがどうでしょうか。青色光はどうなっていますでしょうか。肉眼ではマレ・アキダリウムが出てくるまで北極雲は強くなく、端に弱く見えているだけです。このようになるかと思いますが、矢張り白雲だと思いますが。

これはまことにごもつともです。私も青すぎるとは思っております。実は、これは、赤をほぼ赤外で、加えて青のバンドを狭めて撮っている弊害です。RGB 別でも、確かに青画像だけ、北極が明るいのです。カラーバランス(白バランス)を南極冠を白にするように取っておりますので青い雲になってしまうのです。これを解決するには、ノーマルの RGB で撮ることが望まれます。青だけでもノーマルに戻すべきでしょうか。ノーマル干渉フィルターの青(500nm まで)で撮ると青にも模様が写り始めると思いますが、それでも観測に支障ございませんでしょうか。露出時間は半分になって、撮影としては楽ではあります。

Mn> 4) そこで最後に砂漠の色ですが、私にはシーイングの好いときは ruddy に見えるのです。これもペリエと意見

の違うところですが、彼は orange だといいます。視覚の他に、私の場合は屈折ですから、向こうの DK と違うのかも知れませんが、画像は ruddy かピンクになることはありませんでしょうか。子供がポツと顔を赤らめたような色です。ただ、シーイングの悪いときは黄色か brown です。Lick の屈折ではローズ色という話もありますが、ccd ではそういう色は嘗て出たことはありませんが、どうでしょうか。右倣えということはありませんか。

これについては、私の場合には、フィルターの選択からして「リアルカラー」を目指していないので、私の色が正しい謂れが科学的にはまったくありません。ただ眼視では必ず見ているのですが、私の印象はオレンジです。もっとも、いつも倍率が低め(300倍程度)で見るので、火星は非常に明るく、眼が飽和して白っぽく感じているかも知れません。実はピント調整ではさらに倍率を上げて見ますが、このときはかならず(ピント合わせのために)フィルターを通して覗いておまして、色はわかりません・・・。

Mn> 5) いま、位相角が大きいためにオリュムプス・モンスの蔭が出て、それが肉眼でも見え、ccd のどの畫像でも出てくるのですが、ToUcam 系ではそれが圓い暗点になっています。しかし、オリュムプス・モンスの影が圓形であるはずはなく、せいぜい扇形ではないでしょうか。以下は私の愚考ですが、3000 とか 2000 とかを Registax で stack すると多分影の一番濃い点を中心に集めて、たとえ扇形の像が混じっていても、均してしまつて、全体が圓形になるのではないかと思うのですが、どうでしょうか。バーナードが昔、影を楕圓形に描いているのですが、楕圓形をコンボジットで出すには相当一つひとつの画像が好くなくては駄目なのではないでしょうか。

これは、概ねおっしゃることで合っていそうな気がしています。大量にコンボジットしてしまうと、S/N だけはよくなり、そこで強調をかけますと、なにはともあれ「シャープな感じ」の画像になりますが、じつは正しい形になっているわけではないと思われまふ。数 1000 枚合成という画像の中には、S/N がよくて模様がくっきりしているわりに、どうみても模様の形がおかしいという画像を見かけます。単画像でそこそこ写っていないと、やはり信用ならないのではないかという気がしております。

あまり参考になりましたがどうかわかりませんが、この程度のお答えしかいまのところできません。またよろしくご指導ください。

岡野 邦彦 (Kunihiko OKANO 世田谷 Tokyo)

●.....Date: Sun, 18 Sept 2005 16:00:53 -0400
Subject: Mars Sketch 9.18.05

Hello, I have attached my latest sketch of Mars.

8" SCT f/10 Mag:254x & 338x Filters:W#23A, #21, #80A & unfiltered. Seeing:5-6/10 Transparency:5/6 Temp: 57°F Wind calm Moderate dew CM: 015°-023° Ls 290° De: -11° Dia: 16.2"

Notes: South Polar Cap (SPC) very small and bright. Mare

Australe appears wide and dark. From preceding to following, Noachis (?), Chalce, and Argyre dusky and wedge-shaped.

Deucalionis Regio and Aram appear dusky to light. Sinus Sabbaeus on p. limb followed by dark Sinus Meridiani. Margaritifer Sinus on CM followed by Mare Erythraeum. Niliacus Lacus to north following CM. North Polar Hood (NPH) appears very broad and blue. Bright morning limb haze (MLH).

Thank you,

Michael ROSOLINA (マイケル・ロソリーナ WV 美)

●.....Date: Sun, 4 Sept 2005 12:30:29 +0200
Subject: My First images

Hi Mr. Murakami: I have been contributor in the 2003
oposition. I sent you my first images of this year.
Sorry, because I have included four days in a file. I think is
interesting to see the aspect of a big cloud over Phoenicis

Lacus. My friend **Emilio Hidalgo** has followed this feature
in blue lighth and appears in images of others European ob-
servers such **Christophe Pellier**.

Congratulations for your good work in the C.M.O.

Jesús SÁNCHEZ (ハス・サンチェス Córdoba 西)

TEN YEARS AGO (121)

---CMO #167 (25 September 1995)---

CMO#167は1994/1995観測レポートとしてはNo17になるようだが、もう火星も遠のいて、巻頭はMarsNote(3)で四頁を割いている。表題は「青色光でのクリュセ・クサンテとテムベ
Chryse-Xanthe vs Tempe through B Light in early Feb 1995」で、内容は $\lambda=055^\circ$ Lsころにテムベは南中時にR系では可成り明るいのだが、B光ではマレ・アキダリウムと同じ程度に暗いというもので、クリュセ-クサンテとは違っている、後者はB光でも明るいというわけである(This Note is concerned with the phenomenon observed at the beginning of Feb 1995 at around $\lambda=055^\circ$ Ls: In R Tempe was quite light near the CM but as dark as M Acidalium in B while Chryse-Xanthe was light in B. Tempe was free from the white mist and showed a reddish tint to the naked eyes. Photographic observations were made by ISHIBASHI (Is), MORITA (Mo) and MATSUMOTO (Mt) and visual observations were by MURAKAMI (Mk), IWASAKI (Iw) and the present writer (Mn). The Note explicitly writes the phase angle was $i=05^\circ$ to 07° , since the brightness of mist depends on the phase angle.) 観測は石橋(Is)氏、森田(Mo)氏、松本直弥(Mt)氏の写真観測に頼っている。眼視の方は、村上(Mk)氏、岩崎(IW)氏、それに筆者の観測が上がっている。



これは勿論テムベにこの時期お昼頃には白霧が消えていることを表すわけで、クリュセの方はタルシスに掛けて昼でも赤道帯霧のようなものが漂っているというわけであるが、季節を限定して、こういう観測があったというのは結構なことである。海外の観測も調べているが、好く揃っていないようである。今回の吾が方の写真は1Febから10Febまで十数点あがっているし、眼視観測もそれ以上にある。テムベは南中時に赤味を帯び、地肌を見せている。これはシーイングや透明度に左右される。乳剤の方はIs氏がプロヴィア400、Mt氏はRD100である。位相角の記述があるが、iは浮遊物の明度に関係するということが当時から認識されていた譯である。

OAA Mars Sectionレポートは16Augから15Sept1995までだが、 δ が4.8"から4.5"で、「目立った収穫はない」と書いてあるが、報告そのものは八頁に及ぶ。イタリアのP.TANGA氏によるイタリアからの観測報告(8名)等があるからで、G.QUARRA氏の22Feb1995 $\omega=047^\circ$ Wの見事な写真も載っている。他に、伊舎堂(Id)氏が9Septを今期最後としたこと、「昨年7Augに足羽山での初観測依頼、似たような時期までお互い追跡できて筆者は愉快」と筆者は書いている。Id氏は今回四枚、筆者15Septまで粘って十四枚であった。大津の筆者は通常は宿舎の一階の庭に当たる場所に望遠鏡を置いているのだが、この頃は三階のベランダに上げ、三井寺の山に火星が沈むまで見ていたようである。山は直ぐそこだから早く沈んだ。15Septは然し福井である。次回まで観測したのかどうか、憶えていないが、するつものようである。Nj氏は既に15Augが最後で216枚であった。Iw氏は7Augが最終で、297葉、然し、1990/91年400、1990/91は343であるから下降気味である。LtEでは、Id氏によるとこの年颱風が一個も接近していないようで、水不足が心配とある。Mt氏のLtEには土星の消失の話があって、環のない土星は「間が抜けていて」細い環が見える方が美しい、とある。他にLtEのMk氏の文は何時も面白い。埋め草に「一点点・一天天」が二つも載っている。一点は土星にかこつけて長岡模型の話で、英語である。(Mn)

●.....Date: Sun, 4 Sept 2005 16:41:28 -0400

Subject: Re: Mars images (August 29th, 2005.)

Hi Damian,

>> Also note all of the Tharsis volcanoes can be seen in Red and colour images - all appear decidedly reddish, especially Olympus and Ascraeus Mons. <<

I believe that this may be because they are actually protruding from the atmosphere; I sent an image out back in '99 that showed Alba Patera's oval shield clearly punching out of the dense, morning limb haze. In your case, though the haze is far lighter, it is, none the less, present, and the soil's reddish hue is nicely enhanced wherever the atmospheric haze is missing - such as the slopes of the huge volcanoes. BTW, nice shots.

Maurizio Di SCIULLO (M・テ・イ・シウロ FL 美)

●.....Date: Sun, 4 Sept 2005 23:39:15 +0200

Subject: 04 Sept 2005 - 01:29 UT image

Dear Sirs, Please find attached 1 Mars image, taken early morning 04 September from 's-Gravenwezel, Belgium (51.2°N, 4.5°E) under moderate seeing (4/10). The image is an IR-RGB composite from 2 series of 1200 frames, with and without IR-pass filter. Taken with a 35 cm SCT telescope @ f/33 and ToUCam Pro 740K in OCM (optimized color raw mode). Best Regards,

●.....Date: Sat, 24 Sep 2005 21:21:25 +0200

Subject: 18 SEP 2005 images

Dear Sirs, Please find attached 2 Mars images, taken early morning 18 September from 's-Gravenwezel, Belgium (51.2°N, 4.5°E) under fair seeing (6/10). Both images are taken with a modified ToUCam Pro 840 K with black & white chip. The first image is with IR-pass filter (visual spectrum cut off), the second is with IR-block filter, visual wavelengths only. Taken with a 35 cm SCT telescope @ f/33, each about 600 frames stacked out of a 1800 frame avi sequence. Best Regards,

Tom ALDERWEIRELDT

(トム・アルデルウァイテルウト 's-Gravenwezel 比利时)

●.....Date: Mon, 05 Sept 2005 03:40:26 +0000

Subject: Mars Animation Clouds

Hi All, I have attached an animated .GIF file from 4 Sept. showing the growth of an orographic cloud over Arsia Mons between 07:25 UT and 09:29 UT. A small terminator cloud is also seen on the first two images. Best,

○.....Date: Thu, 08 Sept 2005 02:30:17 +0000

Subject: Mars Images

Hi All, I have attached some Mars images from 4 Sept. Prominent orographic cloud over Arsia Mons and small terminator cloud. Best,

○.....Date: Fri, 09 Sept 2005 04:05:01 +0000

Subject: Mars Images

Hi All, I have attached some Mars images from 7 Sept. Some nice cloud activity and SPC rift. Best,

○.....Date: Mon, 12 Sept 2005 05:25:13 +0000

Subject: Mars Images

Hi All, I have attached some Mars images from 9 Sept. Sorry for the delay, but it's football season! Best,

○.....Date: Wed, 14 Sept 2005 03:59:34 +0000

Subject: Mars Images

Hi All, I have attached some Mars images from 13 Sept. There is an interesting disturbance coming off the NP Hood.

Best,

Don PARKER (唐那・派克 FL美)

●.....Date: Mon, 5 Sept 2005 14:49:23 -0500

Subject: Mars Image 09052005 Bates

Hello to All: This image was taken in average seeing. Solis Lacus is beginning to show lots of detail. Good seeing

to all,

○.....Date: Sun, 18 Sept 2005 22:50:27 -0500

Subject: Mars from Houston 09/18/2005

Hello Friends: This image was taken last night under very warm conditions, 80 deg. F at 1:30am local time. Mars is growing rapidly now, and presents a very nice image in the eyepiece. Surface color and detail are a delight to behold.

The golden hours of the God of War are upon us! We wait years for these fleeting glimpses, and they are gone before we know it. What a comfort it is to observe this distant world, when things on this planet are in such turmoil and chaos. For a brief time we are all citizens of Mars, with no countries, politics, or territorial disputes. Let us leave this Earth, if only for a few months, and bask in the orange light of Mars.

○.....Date: Sat, 24 Sep 2005 00:46:25 -0500

Subject: Mars image taken prior to Hurricane Rita

Greetings from the Hurricane Zone: I managed to get a quick image last night despite approaching bad weather due to Hurricane Rita. Seeing was very turbulent. Take care,

Don BATES (ド・ン・ベーツ Houston, TX, USA)

●.....Date: Mon, 05 Sept 2005 15:18:48 -0500

Subject: Mars Sept 5, 2005 (CM104)

Here is a pair of IR/Red light images of Mars from the morning of 9-05-05. Poor seeing with intermittent mid-level clouds.

http://members.verizon.net/~whd/images/20050905_whd.jpg

Regards,

Bill DICKINSON (ウイリアム・テイキンソン VA 美)

●.....Date: Tue, 6 Sept 2005 13:56:55 +1000

Subject: Mars image from 05 Sept

Please find attached my Mars image from 05 September. It appears to show a bright spot near Nodus Alcyonius.

○.....Date: Wed, 21 Sept 2005 20:44:40 +1000

Subject: Mars image from 20 Sept

Dear CMO, Please find attached my Mars image from 20 September. At long last the seeing was much better than what we have been used to lately here in Melbourne.

Regards,

Stefan BUDA (ステイファン・ブダ Melbourne 澳)

●.....Date: Sun, 11 Sept 2005 05:47:09 EDT

Subject: Re: Mars images (September 9th, 2005.)

Dear Damian, Very nice work. A few comments for you and others. The dark patch within Argyre is in fact a little annular feature previously only seen in HST images (and upwards, as it were). You can see it in my hand-drawn 1990 chart which partly used these images. Hydaspes, historically, is highly variable in response to dust storm activity in or near Chryse Planitia or spilling over from E. Valles Marineris. In 1999 and again more recently it was strongly enhanced, temporarily, due to just such a cause. Thus its frequent (and stronger, more persistent) presence in drawings from the 1850s-1870s epoch suggests very strongly that the emergence sites witnessed now were active then. The transparency of the polar hood over Mare Acidalius was first recorded by W.R.Dawes in 1864-65. All the best

○.....Date: Fri, 16 Sept 2005 09:44:48 EDT

Subject: MARS DUST STORM ALERT

**BRITISH ASTRONOMICAL ASSOCIATION
MARS SECTION DUST STORM ALERT, 16.9.05**

From the Director, Dr R.J.McKim

Don Parker and Christophe Pellier have both commented upon the presence of small dust disturbances in their most

recent CCD images (September 13 and 14). On September 13 Pellier found a small bright patch located N. of Mare Erythraeum in E. Pyrrhae Regio. This was conspicuous on the morning side, but a later image on the same date by Parker does not show it. Although the region is often lightish, the images showed a distinct yellow tint, and the feature may be related to contemporaneous activity further north. Significantly, with Mare Acidalium central, Parker found the NPH disrupted, perhaps by a moving 'front'.

Images by Parker on September 14 revealed a small dust disturbance in E. Chryse, between SE Mare Acidalium and Oxia Palus. These features are just small bright patches in red light, but an anomalous darkening of the surface around E. Chryse (as a revival of the N. part of the classic Indus 'canal' attached to SE Mare Acidalium) tends to confirm their dusty nature. In red light, obscuration of M Acidalium itself is also apparent. Further observations are desirable. The region will be observable in the dawn twilight from the UK and W. Europe, but will be much better placed for our colleagues in the USA. Historically, storms in this region of Mars have never grown to large proportions.

N. Hellas remains light, according to the Director's visual impressions on September 14, but there is no specific dust disturbance at the time of writing.

Albedo maps of Mars can be found at the BAA website <http://www.britastro.com/mars> Good observing!

Richard McKIM (理查·麥肯 Peterborough 英)

●.....Date: Sat, 24 Sept 2005 05:46:00 +0900
Subject: 9月21日の画像

南様：(村上さんにもCcします。)

9月21日の画像をお送りいたします。強調処理をややきつくしたので極冠のあたりは見にくくなりましたが、(特に北半球の)表面模様は見えてきたかなと思います。撮影時刻は、17:06, 17:46, 18:26, 19:06, 19:46, 20:31GMTで、最後だけ5分遅れたのは、撮影の直前に視野から逃げてしまって、戻すのに時間がかかったためです。

浅田 正 (T ASADA 宗像 Fukuoka)

●.....Date: Tue, 13 Sept 2005 12:53:19 -0400
Subject: Re: THE SUN

Hi David (TYLER) - I didn't have that problem with a ToUcam, but I did with an ST-8. I think it's interference from a cover slip, but I can't see the lines you speak of in this image. I've had great results with the ToUcam pro and the PST. Attached is an 18-minute span animation (one-minute avi for each frame, spaced 2 minutes apart each, 6 frames total). I achieved the magnification by using a 2x barlow and a Burgess 1.8x thread- on barlow.

○.....Date: Sat, 24 Sept 2005 10:45:23 -0400
Subject: Mars 9-24

Seeing was fair, not as good as the 22nd, but far better than the CSC predicted. Also, my scope was slightly out of collimation, further degrading the images.

Sean WALKER (シヨン・ウォーカー NY 美)
swalker@SkyandTelescope.com

●.....Date: Tue, 13 Sept 2005 13:20:50 -0400
Subject: Re: THE SUN

I've also had trouble with interference using a Nikon DSLR with my 90mm Coronado filter - the interaction of the cover filter over the CCD and the etalon generates a strong moire pattern which is very difficult to edit out. Fortunately it is not a problem at all with my DMK 21BF04

B&W webcam. This image of AR798 was taken with this set-up on a 5" refractor midday on Sunday:

<http://www.geocities.com/alanfgag/AR798closeup.jpg>

○.....Date: Wed, 14 Sept 2005 12:37:33 -0400
Subject: Wide images of AR798

Hi friends -Here a couple of wider field images of AR798, which has made September 2005 the most active solar month since March 1991! I usually battle the atmosphere for a little bit of peace and quiet but looking at this massive stormy area I felt very thankful for our very thin protective blanket of air.

<http://www.geocities.com/alanfgag/ar798wide.jpg>
<http://www.geocities.com/alanfgag/ar798wide2.jpg>

My geocities site has been receiving too many hits this morning and might be unavailable at times (someday I must learn how to build my own webpage). I hope you will check back or review the posts on the Astromart planetary imaging forum:

<http://www.astromart.com/forums/viewpost.asp?>

○.....Date: Thu, 22 Sept 2005 13:55:24 -0400
Subject: Mars 18th, also with blue sky

Hi David (TYLER) - I found also a similar strong blue limb haze visible here last weekend. I have had very poor seeing in the blue filter - this was the best chance so far to make a balanced RGB image. best wishes,

Alan FRIEDMAN (アラン・フリートマン Buffalo NY美)

●.....Date: Wed, 14 Sept 2005 18:06:57 -0400
Subject: Mars Observation (September 14, 2005)

I made an observation of Mars on September 14, 2005 (06:30 U.T. (IL/W30) and 06:50 U.T. (W38)) under average to good seeing conditions (5-6/10, moments of 7/10). I noted an impressive amount of detail extending between Sinus Sabaeus and Solis Lacus (on the following limb). Mare Erythraeum appeared very complex and mottled.

Date (U. T.): September 14, 2005

Time (U.T.): 06:30 (left image) and 06:50 (right image)

CM: 012.7 (left image) and 017.5 (right image)

Ls 288.0 (Early Northern Winter/Southern Summer)

De -11.3, Diameter 15.7", Phase (p) 0.89

Instrument: 9-inch (23-cm) F/13.5 Maksutov-Cassegrain

Magnification: 248x and 388x

Filters (Wratten): 30 (magenta) and 38 (blue)

Seeing (1-10): 5-6 (moments of 7), Antoniadi (I-V): III

Notes: 06:30 U.T (Left image, IL and W30): The South Polar Cap (SPC) appears small, but brilliant (10/10) surrounded by a dark (3/10) collar (Mare Oceanidum?). Hesperosplanctus appears dark (3/10) along the south-preceding limb. Noachis appears shaded to bright (6-7/10). Chalce (?) appears as a dusky (4/10) wedge extending into Noachis. Pandora Fretum appears dark to dusky (3-4/10) south of Sabaeus Sinus (3/10) and Meridiani Sinus (3/10) which are separated by a shaded to bright (6-7/10) Deucalionis Regio. Brangaena appears a thin, dark (3/10), curvilinear projection from the north-following border of Meridiani Sinus. Margaritifer Sinus appears dark (3/10) and wedge-shaped on the CM. Aram appears bright (7/10) between Meridiani Sinus and Margaritifer Sinus. Oxia Palus appears as an elliptical, dusky (4/10) albedo feature north of the tip of Margaritifer Sinus. Mare Erythraeum appears complex and mottled (3-6/10) following the CM. Aurorae Sinus appears dark (3/10) and wedge-shaped towards the following limb. The northern border of Mare Erythraeum appears complex with thin, dusky to dull (4-5/10) projections extending into Chryse-Xanthe (7/10). Solis Lacus appears dark (3/10) and foreshortened along the following limb. Niliacus Lacus appears as a dark to dusky (3-4/10) wedge partially obscured by an extremely bright (9/10) North Polar Hood (NPH). Extremely

bright (9/10) morning and evening limb hazes (MLH and ELH) are noted.

06:50 U.T. (Right image, W38): The South Polar Cap (SPC) appears small and brilliant (10/10). Pandora Fretum, Sabaeus Sinus, Meridiani Sinus, Margaritifer Sinus, Mare Erythraeum, and Solis Lacus are visible as dusky to dull (4-5/10) albedo features towards the center of the disk. Aram appears bright (7/10, possible water-ice clouds?). A bright to very bright (7-8/10) cloud appears to extend between Eden and Tharsis over Chryse-Xanthe. Niliacus Lacus is visible as dull (5/10) wedge south of an extremely bright (9/10) North Polar Hood (NPH). Extremely bright (9/10) morning limb haze (MLH) and evening limb haze (ELH) is noted.

The best of luck imaging and observing the red planet as it approaches closer to Earth. Regards,

Carlos HERNANDEZ (カルロス・ヘルナンデス Miami FL美)

●.....Date: Sat, 17 Sept 2005 11:03:57 +0900
Subject: 9月16日GMT画像報告

南さま、村上さま：九月も颱風の襲来などがあって、成果が出ないままに季節は秋に向かって進み、気流がかなり悪化してきました。昨夜も雲が多くてほとんどあきらめていたところ、夜明け前になって雲に隙間ができ、気流もまずまずで、久しぶりにご報告できるような画像が撮れました。

松本 直弥 (Naoya MATSUMOTO 佐世保 Nagasaki)

●.....Date: Mon, 19 Sept 2005 00:47:25 +0200
Subject: Mars from 18. September 2005

Dear Masatsugu, dear Masami, here my Mars from 18. September 2005, 00:00 UT - 02:00 UT. It was very humid, mad Seeing but good Transparency ... Best wishes

Silvia KOWOLLIK (シルヴィア・コウワリク Stuttgart徳)

●.....Date: Mon, 19 Sept 2005 08:59:49 -0400
Subject: Mars - Sept. 19, 2005 8:22UT

Hi, I am submitting an image from Sept 19 taken at Oxford, Connecticut, USA. Regards,

Peter GORCZYNSKI (P・ゴルトティンスキイ CT 美)

●.....Date: Tue, 20 Sept 2005 10:38:41 -0500
Subject: [marsobservers] Mars September 20th

Here are images of Mars taken September 19th 2005 from Houston Texas. There is a brighter spot in Niliacus Lacus that shows well in red and IR. This brighter spot seems to be getting brighter in the last few days and is inline with a streak that has been present for a few days. I have imaged this area for the last few days and the latest image on the 20th represents the most distinct change. Here are the images for the last 3 days up to today, the 20th.

<http://www.ghg.net/egrafton/m9-18-05.jpg>

<http://www.ghg.net/egrafton/m9-19-05.jpg>

<http://www.ghg.net/egrafton/m9-20-05.jpg>

These images can be compared to Damian Peach's image of this area several days ago and this bright spot is not present. http://homepage.ntlworld.com/damian.peach/2005_09_09rgb_DAP.jpg The streak may be a frontal zone that Jeff Beish has alluded to. Perhaps there is a significant pressure gradient along the front resulting in high winds stirring up a bit of dust.

More images of this area may show that this is a very transient obscuration of the albedo features of Niliacus Lacus and fading rapidly or show an expanding obscuration. Hurricane Rita is heading for the Texas coast where I observe and it is likely that this will be my last observation of Mars for a while.

C14 at f/39, taken with a ST402 CCD. Seeing 8/10, Transp. 5/10, Temp 77.7F, Relative Humidity 84%, Red/Grn/Blu @ 80% scale.

Ed GRAFTON (エド・グラフトン Houston TX 美)

●.....Date: Tue, 20 Sept 2005 22:16:38 -0400
Subject: Mars 03 & 05 September

Hello everyone... I have enjoyed receiving all of the great images and drawings of Mars over the summer. I managed to get out and take my first images in early September, and am only getting them processed and e-mailed now. Conditions were good both mornings, and I found that I could coax a little extra image size after running the first set of images. The same equipment was used each time, simply lengthened out the eyepiece projection adapter the second time out. The 30cm scope and the ATK-1HS camera were used with the Schuler filters. One the 5th, I also grabbed one colour shot with the ToUcam. The images from the 5th are perhaps some of the best Mars shots I have done. I am looking forward to this fall and winter. Take care,

○.....Date: Wed, 21 Sept 2005 14:05:09 -0400
Subject: Area of Interest - 21 Sept.

Hello all... I captured one set of filtered images this morning between 08:00 and 08:45 UT. I have only managed to process a few and have noticed a spot of interest. I have sent out the red and RGB composite with the area marked.

Details are marked on the image. The area I find of interest is along the border of Sinus Meridiani and Chryse, following the slender curve of Oxia Portus. There is a bright area in the red image, inside of the limb processing artefact. Potential cloud/dust?? This is probably of no significance, but I wanted to send it out ASAP just in case.

Brian COLVILLE (ブライアン・コルヴィル Ontario 加)
www.quicklinks.on.ca/~maple

●.....Date: Thu, 22 Sept 2005 10:25:03 -0700
Subject: Mars photo 14 Sept

Dear Sir, I send to you my photo of Mars. Time: 14 September 2005, 23:25 UT Telescope: Celestron SC, 8" (203mm) @ f/20 Webcam: Philips ToUcam Pro, Filter: Baader 610nm Longpass (R-IR), → grayscale 158 of 723 frames stacked Seeing: 4/10, Transparency: 3/10 - clouds

Best wishes from Croatia.

Zlatko KOVACEVIC (Z・コヴァチェヴィッチ Virovitica 克)

●.....Date: Thu, 22 Sept 2005 12:13:08 -0700
Subject: Fw: Mars Sept 18th

Hello Mr. Minami I submit my observations. Thanks,

Ed LOMELI (エド・ロメリ Sacramento, CA 美)

●.....Date: Fri, 23 Sept 2005 09:41:49 +0900
Subject: 観望会ありがとうございました。

南さま、先日の仲秋の名月観望会、ありがとうございました。おかげさまで、ゆっくりと学会参加ができました。また、話によると、国際交流会館でチラシを見たという外国人がいらしたということで、チラシを作った甲斐がありました。

これからは、いよいよ火星の時期になりますね。よろしく願いいたします。

梅田 美由紀 (Miyuki UMEDA)

福井市自然史博物館 Fukui)

●.....Date: Fri, 23 Sept 2005 18:12:43 +0900
Subject: Mars 22 Sept. 2005 Cebu Philippines

セブ島に来て二ヶ月間が過ぎました。その間の天気はとても悪く、夜に星が見えたことは殆ど無かつ



たぐらの悪い天気が続いていました。その為か気温が上がらず八月が日本よりも涼しく凌ぎ易く思いました。さて火星の方はやっとホテルのテラスから朝方見える様になってきました。天頂から15度、西にすれば見えはじめますので、今後は少しづつ見える時間帯が早まります。気流は日本よりはズット良いのですが、ホテルのエアコンの影響があり、整った環境ではありません。それでもこの国の観測環境からみれば仕方ありません。また北緯10度近くの緯度の低さでは極軸合わせが大変で、ドイツ式赤道儀はとっても使いづらいですね。では又、送ります。

阿久津 富夫(Tomio AKUTSU セブ The Philippines)

(註)T AKUTSU, now at the Cebu island (10°N) until this Dec, has been annoyed by the bad weather this summer, but he expects it will turn gradually better. The veranda where he keeps his handy 20cm SCT (↑) is going to catch easily the morning planet. Cebu is located westward by more than 10 degrees from Japan, and so he will be able to chase Mars more than us for another hour. (Ed)

シー・エム・オー・フクイ

中島 孝 Nj

★今回は**花山 豪 様**(363)、**湧川 哲雄 様**(364)よりカンパを頂戴しました。有難うございました。今後ともよろしく願いいたします。★ところで、印刷費(今回は28頁!)、送料の他に、InternetでのCMO関係のサイトが多くなり、維持費がかなり必要となってきましたので、今後この点もお含みおきの上、ご支援をお願いしたいと思います。不

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

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