

MARS

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OBSERVATIONS

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*CMO Mars Observations during the Second Half of October 2005
from 16 October (307°Ls) to 31 October 2005 (316°Ls)*

2005年十月後半(16 Oct~31 Oct)の火星面観測

南 政 次 Masatsugu MINAMI

♂..... This period, from 16 October to 31 October, was a climax of the present apparition in several points: First, the planet was closest to the Earth on 30 October at 3.5 hrs GMT, and secondly the seasonal dust storms flourished. On 16 October the angular diameter was $\delta=19.5''$. The apparent declination was slightly lowered from $+16^{\circ}39'$ in mid-October, but kept at $+16^{\circ}14'$ at the end of the month, implying Mars shined high up at the northern hemisphere. The Martian season proceeded from $\lambda=307^{\circ}\text{Ls}$ (on 16 Oct) to $\lambda=316^{\circ}\text{Ls}$ (on 31 Oct). The central latitude ϕ was from 12°S to 14°S , and the phase angle ι rapidly decreased from 20° to 7° . When it was closest on 30 Oct, the season was $\lambda=315.2^{\circ}\text{Ls}$ with $\delta=20.17''$ and $\phi=14.2^{\circ}\text{S}$. It has been stressed that during the season $\lambda=310^{\circ}\text{Ls}\sim 350^{\circ}\text{Ls}$ the dust disturbances are highly expected to occur at the northern hemisphere and go up to the opposite hemisphere (see CMO #305), and really it was the case this period and a longer narrative review follows here, though the detailed analysis of the events will be postponed to CMO Notes which will be given later in off-season. It was quite the same as in 1973 that the dust storms were watched when the Mars was closest.

観測も佳境に入って、16Octで $\delta=19.5''$ になった。火星の高度は中旬の $+16^{\circ}39'$ から次第に南下した観測が、月末でも $+16^{\circ}14'$ であった。これは日本からは南中時相當に高いことを意味する。火星の季節は16Octの $\lambda=307^{\circ}\text{Ls}$ から31Octの $\lambda=316^{\circ}\text{Ls}$ まで進んだ。 ϕ は 12°S から 14°S へ、位相角 ι は 20° から 7° まで落ちた。この間、30Oct3.5hrsGMTに最接近した。季節は $\lambda=315.2^{\circ}\text{Ls}$ 、 δ は $20.17''$ 、 ϕ は 14.2°S であった。日本からは $\omega=030^{\circ}\text{W}\sim 120^{\circ}\text{W}$ ぐらいの範囲が観測可能であったが、この日天気に恵まれたのはKm氏ぐらいであった様だ。尚、 $\lambda=310^{\circ}\text{Ls}\sim 350^{\circ}\text{Ls}$ は北半球起源の黄雲が南半球に波及する季節で(CMO#305号参照)、今回はこの季節に入ったということで、実際に當初からこれに對處することになり、以下の報告も予定紙面を超過する。但し、観測の報告だけであって解析はシーズン後に廻す。

♂..... The observers contributed this time are as follows. 観測報告者は以下の如くである。

ADCOCK, Barry バェリィ・アドコック (BA) 墨爾本 Melbourne, Australia

2 Colour CCD Images (22, 31 October 2005) 36cm Schiefspiegler with ToUcam Pro

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

5 Sets of CCD Images (16, 18, 21, 27 October 2005) $f/35,45 \times 23\text{cmSCT}$ with a ToUcam

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

3 Colour CCD Images (20, 21, 24 October 2005) $f/28 \times 20\text{cm SCT}$ with ToUcam

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

1 CCD Image (29 October 2005) $f/24 \times 35\text{cm SCT}$ with ToUcam pro

- AMADORI, Vittorio ヴィットリオ・アマドリ (VAm)** 義大利 Valvestino, Italia
2 Colour CCD Images (29 October 2005) 38cm spec with Vesta Pro
- ANDERSON, David デヴィッド・アンダーソン (DAd)** 南卡羅萊納 nr Greenwood, SC, USA
4 CCD Images (16, 20, 24, 27 October 2005) $f/39,44,55 \otimes$ 40cm spec with a ToUcam 740
- ARDITTI, David デヴィッド・アーディッチ (DAr)** 英國 Stag Lane, Edgware, G London, UK
2 Sets of Images + 9 Colour CCD Images (16, ~18, 20, 23, 25, 27 October 2005)
 $f/50 \otimes$ 25cm D-K with ATK-1HS II
- ASADA, Tadashi 淺田 正 (As)** 福岡・宗像 Munakata, Fukuoka, Japan
18 Colour CCD Images (16, 19, 26, 27 October 2005) 30cm SCT with an MX5000
- BATES, Donald R ドン・ベーツ (DBt)** 德克薩斯・休斯敦 Houston, TX, USA
9 Colour CCD Images (16, 17, 19, ~22, 27, 29, 30 October 2005)
 $f/30,35 \otimes$ 25cm spec with a ToUcam Pro
- BHANUKITSIRI, Ron ロン・ビー (RBe)** 加利福尼亞 CA, USA
3 CCD Images (29, 30* October 2005) $f/40,52 \otimes$ 13 refr/ $f/43 \otimes$ 10cm refr with ToUcam II
- BIVER, Nicolas ニコラ・ビヴェール (NBv)** 凡爾賽 Versailles, Yvelines, France
6 Colour Drawings (17, 23, 23.24, 29, 30 October 2005) 700×41cm speculum
- BOLZONI, Simone スイモーネ・ボルツォーニ (SBI)** 義大利 Busto Arsizio, Italia
1 CCD Image (28 October 2005) 20cm SCT with ToUcam Pro II
- BOSMAN, Richard リシャルト・ボズマン (RBs)** 尼德蘭 Enshed, Nederland
1 Set of CCD Images (27 October 2005) 28cm SCT with an ATK-2HS
- BUDA, Stefan ステイーファン・ブダ (SBd)** 墨爾本 Melbourne, Australia
6 Colour CCD Images (17, 22, 26, 27 October 2005) $f/30 \otimes$ 40cm D-K with a ToUcam
- BUNGE, Robert ボブ・バンジ (RBg)** 馬里蘭 Bowie, MD, USA
1 Drawing (29 October 2005) 260×43cm $F/7.8$ spec
- CHAIKIN, Andrew アンドルー・チャイキン (ACK)** 佛蒙特 Arlington, VT, USA
1 CCD Image (30 October 2005) 28cm SCT with a ToUcam
- CHAVEZ, Rolando ロランド・チャヴェス (RCv)** 喬治亞 Powder Springs, GA, USA
8 CCD Images (19, 21*, 23*, 27 October 2005)
 $f/38,50 \otimes$ 25cm $F/12.5$ Mak-Cass / 32cm spec* with a ToUcam
- DeGROFF, Kent ケント・デグロフ (KGr)** 亞利桑那 Scottsdale, AZ, USA
9 Colour CCD Images (14, 20, 21, 31 October 2005)
 $f/62 \otimes$ 25cm spec with ToUcam 740
- DICKINSON, William H ビル・ディキンソン (WDe)** 維吉尼亞 Glen Allen, VA, USA
6 Colour CCD Images + 4 IR (18, 19, 23, 30, 31 October 2005)
 $f/30 \otimes$ 20cm SCT with a ToUcam Pro II
- FRIEDMAN, Alan アラン・フリードマン (AFd)** 紐約・水牛城 Buffalo, NY, USA
3 Sets of CCD Images (19, 21, 31 October 2005)
 $f/32 \otimes$ 25cm Mak-Cass with B&W firewire webcam (model DMK21BF04)
- GASKELL, Martin マーチン・ガスケル (MGs)** 內布拉斯加 Lincoln, NE, USA
1 CCD Image (18 October 2005) 20cm spec with ?
- GRAFTON, Edward A エド・グラフトン (EGf)** 德克薩斯・休斯敦 Houston, TX, USA
9 Sets of CCD Images (16, ~21, 23, 26, 29 October 2005) $f/39 \otimes$ 35cm SCT with an ST402
- HEATH, Alan W アラン・ヒース (AHt)** 長伊頓 Long Eaton, Nottingham, UK
2 Colour Drawings (9*, 10*, 19*, 25*, 27, 31 October 2005) 200×20cm SCT *Notes

- HEFFNER, Robert** **ロバート・ヘフナー (RHf)** 名古屋 Nagoya, Aichi, Japan
4 Colour CCD Images (20, 22, 24, 27 October 2005) $f/30 \otimes 28\text{cm}$ SCT with Lu075C
- HERNANDEZ, Carlos E** **カルロス・ヘルナンデス (CHr)** 佛羅里達・邁阿密 Miami, FL, USA
1 Colour Drawing (26 October 2005) 194×23cm $F/13.5$ Maksutov-Cass
- HIDALGO TORTOSA, Emilio** **エミリオ・ヒダルゴ (EHd)** 西班牙 La Carolina, Jaén, España
8 Sets of CCD Images (20, 26, 31 October 2003) $f/50 \otimes 30\text{cm}$ Dall-Kirkham, ToUcam
- HIGA, Yasunobu** **比嘉 保信 (Hg)** 沖縄・那覇 Naha, Okinawa, Japan
6 Colour CCD Images (19, 20, 22, 27, 31 October 2005)
25cm $F6.7$ spec with Sony VX2000
- HUNTER, David** **デーヴ・ハンター (DHn)** 英國・約克 York, Uk
1 CCD Image (20 October 2005) $f/45 \otimes 25\text{cm}$ spec with an ATK-1HS
- ISHIBASHI, Tsutomu** **石橋 力 (Is)** 神奈川・相模原 Sagamihara, Kanagawa, Japan
2 Colour CCD Images (20, 24 October 2005) 31cm spec with Pentax*ist DS
- IWASAKI, Tohru** **岩崎 徹 (Iw)** 小倉 KitaKyushu, Fukuoka, Japan
4 Drawings (27, 29 October 2005) 400×21cm speculum
- JUSTICE, Mark** **マーク・ジャスティス (MJs)** 墨爾本 Melbourne, Australia
2 Colour CCD Images (30, 31 October 2005) $f/40 \otimes 25\text{cm}$ D-K with ToUcam 840
- KARRER, Michael** **ミハエル・カッレル (MKr)** 奧地利 St Radegund, Österreich
4 Colour CCD Images (18, 22, 26, 27* October 2005)
 $f/44 \otimes 18\text{cm}$ Refraktor / $f/22 \otimes 44\text{cm}$ spec* with a ToUcam
- KOVACEVIC, Zlatko F** **ズラトコ・コヴァチェヴィッチ (ZKv)** 克羅地亞 Republika Hrvatska
1 R CCD Image (19 October 2005) $f/35 \otimes 20\text{cm}$ SCT with a ToUcam Pro
- KOWOLLIK, Silvia** **シルヴィア・コヴォツリク (SKw)** 德國 Ludwigsburg, Deutschland
80 Colour CCD Images (16, ~20, 22, ~24, 27, 28, 31 October 2005)
 $f/41 \otimes 15\text{cm}$ spec with a ToUcam 740
- KUMAMORI, Teruaki** **熊森 照明 (Km)** 堺 Sakai, Osaka, Japan
19 Colour CCD Images (16, 18, 22, ~24, 27*, 30, 31 October 2005)
 $f/88 \otimes 20\text{cm}$ Dall-Kirkham with a ToUcam/ $f/50 \otimes 60\text{cm}$ Cass with an ATK-2C*
*ソフィア堺 Sakai City Observatory
- LAU, Canon** **劉 佳能 (CLa)** 香港 Hong-Kong
5 Colour CCD Images (21, 24, 25 October 2005) $f/32,59 \otimes 36\text{cm}$ SCT with ToUcams
- LAWRENCE, Pete** **ピート・ローレンス (PLw)** 英國 Selsey, WS, UK
2 CCD Images (17, 31 October 2005) $f/30 \otimes 25\text{cm}$ SCT with ToUcam Pro
- LOMELI, Ed** **エド・ロメリ (ELm)** 加利福尼亞 Sacramento, CA, USA
8 Sets of CCD Images (21, 22, 23 October 2005) 23cm SCT with a ToUcam
- MASSÓ MILLEURO, Félix** **フェリックス・マツソ (FMr)** 西班牙 La Coruña, Galicia, España
1 CCD Image (23 October 2005) 21cm Dall-Kirkham with Quickcam 3000
- MEGNA, Ralph** **ラルフ・メグナ (RMg)** 加利福尼亞 Landars, CA, USA
1 CCD Image (23 October 2005) $f/20 \otimes 25\text{cm}$ SCT with a ToUcam
- MELILLO, Frank J** **フランク・メリッロ (FMI)** 紐約 Holtsville, NY, USA
11 Colour + 1 R CCD Images (16, 18, ~20, 24, 27, 30, 31 October 2005)
 $f/20 \otimes 20\text{cm}$ SCT with a ToUcam/ Xpres MX-5
- MINAMI, Masatsugu** **南 政次 (Mn)** Mt Hamilton, CA, USA→福井 Fukui, Fukui, Japan
62 Drawings (17*, 18*, 21*, ~24*, 25, 27, 29, 31 October 2005)

500, 600×91cm (→50cm) refractor*/400×20cm Goto ED refractor

* Lick Observatory, Mt Hamilton / Fukui City Observatory 福井市自然史博物館天文臺

MOBBERLEY, Martin P マーチン・モツバーレイ (MMb) 英國 Cockfield, Suffolk, UK

1 Set of CCD Images (16 October 2005) $f/50 \otimes 25\text{cm}$ $F/6.3$ speculum with Lu075M

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

5 Sets of CCD Images (27, 29, 30 October 2005) $f/37 \otimes 25\text{cm}$ speculum with ATK-1HS

MORITA, Yukio 森田 行雄 (Mo) 廿日市 Hatsuka-ichi, Hiroshima, Japan

18 Sets of RGB +20 IR Images (19, 20, 23, 25, 27 October 2005)
25cm spec with an ST-5C

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

25 Drawings (20, 24, 25, 27, 28, 31 October 2005) 320, 400×20cm $F8$ speculum

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

24 Drawings (16, 19, 25, 27, 28, 29 October 2005) 400×20cm 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

28 Drawings (17, 20, 23, ~25, 27, ~29, 31 October 2005) 400×20cm Astro ED refractor

NIKOLAI, André アンドレ・ニコライ(ANk) 德國 Remshalden, Deutschland

1 CCD Image (16 October 2005) 10cm Zeiss AS Refraktor with ToUcam Pro

ORTEGA, Jordi ホルディ・オルテガ (JOr) 西班牙 Barcelona, España

9 Colour Images (22/23 October 2005) $f/30 \otimes 25\text{cm}$ SCT with ToUcam 740

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

2 Sets of CCD Images (17, 18 October 2005) $f/60 \otimes 41\text{cm}$ $F/6$ spec with an ST9XE

PARKER, Timothy J ティム・パーカー (TPk) 加利福尼亞 LA, CA, USA

3 Colour CCD Images (30 October 2005) 20cm SCT with a Flea Firewire camera

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

21 Sets of CCD Images (16, 17, 17/18, 21, 22, 22/23, 25/26, 27 October 2005)
 $f/40 \otimes 35\text{cm}$ SCT with Lu075

PELLIER, Christophe クリストフ・ペリエ (CPl) 法國 Noisy-le-Grand, France

10 Sets of RGB + 7 R +2 B Images (17, 23, ~25, 27, 29 October 2005)
 $f/53, 65, 69 \otimes 21\text{cm}$ Mewlon with Lu075M

PHILLIPS, Jim ジム・フィリップス (JPh) 南卡羅萊納 Charleston, SC, USA

5 Colour CCD images (18, 19, 20, 30 October) 20cm TMB with an ATik Color

ROEL SCHREURS, Eric エリック・ロエル (ERl) 墨西哥 Mexico

2 CCD Images (22, 23 October 2005) 25cm TEC Mak 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 (19, 30 October 2005) 250, 340×20cm SCT

San EMETERIO SANTOS, Francisco (FEm) フランシスコ・サン・エメテリオ Sandanter, España

4 CCD Images (23/24, 25/26 October 2005) 18cm Maksutov with an ATik 1C

SÁNCHEZ PORTERO, Javier ハビエル・サンチェス (JSz) 西班牙 Tenerife, España

3 Colour Images (29 October 2005) $f/37 \otimes 20\text{cm}$ SCT with a ToUcam 840

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

10 Colour + 2 R CCD Images (16*, 18, 21, 23, 25*, 25/26 October 2005)
 $f/30,45 \otimes 28\text{cm}$ SCT/ $*f/50 \otimes 18\text{cm}$ Mak-Cass with a ToUcam/Quickcam pro 4000

SCHULZ, Robert ロベルト・シュルツ (RSz) 奧地利 Wien, Österreich

3 Sets of CCD Images (18, 29 October 2005) $f/31 \otimes 32\text{cm}$ spec with Lu075M

- SHARP, Ian** イアン・シャープ (*ISp*) 英國 West Sussex, UK
3 Colour CCD Images (22/23 October 2005) $f/48 \otimes 20\text{cm}$ spec with ATiK-1HS
- SHEEHAN, William P** ビル・シーハン (*WSh*) 明尼蘇達 Willmar, MN, USA
2 Drawings (29, 30 October 2005) 200, 270×28cm SCT
- SHERROD, P Clay** クレイ・シャロド (*CSr*) 阿肯色 Aso Sky Observatory, AR, USA
29 Colour +5 R CCD images (16, ~21, 23, 25, ~30 October 2005)
 $f/32 \otimes 40\text{cm}$ RC with a ToUcam Pro
- SIEGEL, Elisabeth** エリサベト・シーゲル (*ESg*) 丹麥 Malling, Danmark
3 Drawings (23, 29, 30 October 2005) 330×20cm $F/10$ SCT
- TATUM, Randy** ランディ・テータム (*RTm*) 維吉尼亞・里士滿 Richmond, VA, USA
3 CCD Images (19, 20, 31 October 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
4 Drawings (26, 28, 30, 30/31 October 2005) 330, 350×28cm SCT
- TYLER, David** デーヴ・タイラー (*DTy*) 英國 Flackwell Heath, Buckinghamshire, UK
7 Sets of CCD Images (16, ~18, 22, 26, ~28 October 2005)
 $f/55 \otimes 28\text{cm}$ SCT with Lu075
- UMEBAYASHI, Shinji** 梅林 信治 (*Um*) 北九州・戸畑 KitaKyushu, Japan
2 Colour CCD Images (23, 27 October 2005) 20cm Mak-Cass with TRV-70
- VALIMBERTI, Maurice** モーリス・ヴァリムベルティ (*MVl*) 墨爾本 Melbourne, Australia
10 Colour CCD Images (17, 23, ~27, 31 October 2005)
 $f/27.50 \otimes 35\text{cm}$ SCT with a ToUcam Pro
- WALKER, Sean** ショーン・ウォーカー (*SWk*) 馬塞諸薩 Methuen, Ma, USA
11 Colour CCD Images (18, ~20, 23, 31 October 2005)
 $f/50 \otimes 18\text{cm}$ Maksutov-Newtonian with a ToUcam 740
- WARELL, Johan** ヨハン・ヴァレル (*JWr*) 烏普薩拉 Uppsala, Sweden
4 Sets of CCD Images (17, 20, 24, 26 October 2005) 36cm $F15$ refractor with ToUcam
- WARREN, Joel** ジョエル・ウォーレン (*JWn*) 德克薩斯 Amarillo, TX, USA
22 Sets of CCD Images (18, ~24, 26, ~29, 31 2005) 20cm SCT with a ToUcam
- WILLIAMSON, Thomas E** トマス・ウィリアムソン (*TWs*) 新墨西哥 Albuquerque, NM, USA
1 Set of CCD Images (25 October 2005) $f/35 \otimes 20\text{cm}$ spec with a ToUcam Pro
- WIRTHS, Mike** マイク・ワースス (*MWs*) 加拿大 Perth, Ontario, Canada
2 Colour CCD Images (21, 22 October 2005) 45cm Dobsonian with Lumenera Infinity 2-2

A. Dust Events from 18 October ($\lambda=308^\circ\text{Ls}$) to 31 October ($\lambda=316^\circ\text{Ls}$):

♂.....A small rozenge light matter found on 17 Oct: GRAFTON (*EGf*) detected an interesting light matter to the south-west of Niliacus L on 17 Oct ($\lambda=308^\circ\text{Ls}$) at 6:35GMT ($\omega=072^\circ\text{W}$)~6:54GMT ($\omega=077^\circ\text{W}$): These images were dispatched at 15:12GMT, and subsequently at 17:48GMT *EGf* sent out an email under Subject: *Chryse Anomalous Feature* (see CMO#311p225) and pointed out that it had been also shot by SHERROD (*CSr*) at 6:35GMT while it could not be detectable on LAWRENCE (*PLw*)'s image at 1:56GMT ($\omega=004^\circ\text{W}$). If we refer to our CMO Gallery, we should say it cannot also be found on ARDITTI (*DAr*)'s images at $\omega=357^\circ\text{W}$ (1:27GMT) as well as on BATES (*DBt*)'s at 4:14GMT ($\omega=038^\circ\text{W}$). It is uncertain on the images taken by Don PARKER (*DPk*) at 5:02GMT ($\omega=050^\circ\text{W}$). The present writer (*Mn*) observed at 5:50GMT ($\omega=061^\circ\text{W}$), but was not aware of it. He noted that the evening terminator was whitish misty, but no light core at Xanthe was noted. *EGf*'s object proved that the small light matter had a shape of rozenge, and was considered located around ($\Omega=042^\circ\text{W}$, $\Phi=15^\circ\text{N}$), and readily

WARREN (*JWn*) communicated at 15:03CDT=20:02GMT and at 20:15GMT (CMO #311 p233) that it must have reflected the shape of a topography around Xanthe Dorsa to Simud Vallis. *JWn* seemed to regard this pie-like wedge as an evening mist over a plateau or a valley. We may say it is also possible it was a frost in the evening. We agree with the idea of *JWn*: Since we exclude an idea of the onset of dust disturbances in the evening, we employ Occam's razor to deny that it was a dust. This phenomenon is however interesting, and so we should keep in mind. To compare with the grid map on 17 Oct, the place was apart from the evening terminator by about 35° (two hours and more before the sunset), and so it is possible the MGS well shot it.

17Octのクリュセの菱形明斑現象: グラフトン (*EGf*)氏が17Oct($\lambda=308^\circ\text{Ls}$)6:35GMT($\omega=072^\circ\text{W}$)~6:54GMT($\omega=077^\circ\text{W}$)にニリアクス・ラクスの西南方に珍しい明斑を撮っている。この画像群は15:12GMTに發送されたが、その一時間半後17:48GMTにクリュセに菱形の明斑が出ていることをemailで注意した(CMO #311p225)。同時に、これはシャロッド(*CSr*)氏の6:35GMTの画像にも出ているが、1:56GMT($\omega=004^\circ\text{W}$)のピート・ローレンス(*PLw*)氏の画像には出ていないとしている。CMO-Galleryの画像でいえば、アルディッチ(*DAr*)氏の $\omega=357^\circ\text{W}$ (1:27GMT)にもベーツ(*DBt*)氏の4:14GMT($\omega=038^\circ\text{W}$)にも出ていないと思われる。唐那・派克(*DPk*)氏の5:02GMT($\omega=050^\circ\text{W}$)では不明である。少なくとも菱形のものは見えていない。筆者(*Mn*)は(丁度レム・ストーン夫妻の晩餐招待の後で少し遅れたが)5:50GMT($\omega=061^\circ\text{W}$)での観測ではこれを感じていない。この菱形の位置は($\Omega=042^\circ\text{W}$ 、 $\Phi=15^\circ\text{N}$)邊りで見られ、直ぐにウォーレン(*JWn*)氏が注意した様に(15:03CDT=20:02GMTと20:15GMT、CMO#311p233)、これはクサンテ・ドルサからシムド・ワッリス(Simud-Vallis:シュメール語の火星谷)近傍の地形を反映していると考えるのが妥当の様に思う。*JWn*氏はpie-liked-wedgeとして谷かプラトーの夕方に出る霧の如きものとしているが、霜の可能性もあるだろう。夕方に現れる黄雲などという考えは筆者は採用しないが、今後、注意すべき現象と思う。当時の経緯度圖と比較すると夕端から略35°離れているので(夕没から二時間以上前)、MGSが撮っている可能性がある。

♂.....Dust Storm at the Southern Chryse on 18 Oct: On 13/14 Oct ($\lambda=306^\circ\text{Ls}$), PELLIER (*CPl*) detected a bright dust streak near Eos rather at the morning side and it was chased by several European observers. It became however soon latent hidden in a meteorological wormhole, but on 18 Oct ($\lambda=308^\circ\text{Ls}$) it re-onset largely and provided a rare case of dust which was able to be chased from the morning to evening. One unfortunate thing was the fact that the phase angle ι was still 18°, implying that the dawn terminator was one-hour away. The morning burst was first checked by KOWOLLIK (*SKw*), Germany, and she sent an alert at 1:55GMT to CMO (*Mk* & *Mn*): Her first shot was made at 1:45GMT ($\omega=353^\circ\text{W}$), and so her detection was made visually or on the monitor. She wrote: (Date: Tue, 18 Oct 2005 03:54:25 +0200, Subject: Chryse very bright and "too roundish" ? Dear Masatsugu, dear Masami, 1:55 GMT, Seeing here is very poor (3-4/10), but I believe, there is something unusual at Chryse region. It seems to be too bright and "roundish" - it reminds me of the Hellas Basin... best wishes). Time 2h GMT implied 11h JST in Japan and *Mk* was readily aware of *SKw*'s email, and so *Mk* must have been the person in Japan first informed of the onset, though it was impossible to see Chryse on the day there. Fortunately the present writer (*Mn*) stayed at Mt Hamilton, and the time 2h GMT implies 19h PDT at the West Coast, and it was the time *Mn* began usually to work in the evening at the Lick Observatory (dinner at 18h PDT), and so soon *Mn* was able to read *SKw*'s alert. Mars is not yet observable until after 22h PDT at Mt Hamilton. The evening sky looked not preferable there since some clouds floated and it was rather windy. Subsequently, during his stay at a room near the big dome from 19h to 22h PDT, *Mn* received another email at 20:42PDT (3:42GMT) from *SKw* with a processed image. She was still observing. At 21:20PDT (4:20GMT), WARREN (*JWn*) sent out a photo set with a dust alert (his email on 17 Oct at 23:20CDT was cited in CMO #311 p233): The image was the one produced at 3:23GMT ($\omega=017^\circ\text{W}$). Since the local time was 22:23CDT, it was supposed that the planet was quite low, but *JWn*'s was good enough to confirm the dust cloud. After sending a reply to *JWn* and his list that we should be sure of the dust occurrence and at the same time forwarding *SKw*'s

preceding image at 21:58PDT (4:58GMT), the present writer entered the big dome. *Mn*'s first observation was made from 5:20GMT (22:20 GMT) to 5:40GMT (22:40PDT) at $\omega=048^\circ\text{W}$: The planet was low, and seeing was poor as expected, but the dust disturbance at the southern corner of Chryse-Xanthe was very evident; very bright, roundish. The dust cloud was also clear to the Lick astronomers Rem STONE and Tony MISCH. The present writer thought that *SKw*'s description of the area alike a bright Hellas in an early stage was correct. Later it was called V-letter like or having a heart-like shape, but to the naked eye it was fully roundish since the cloud was very bright. Really a dark segment around at Electra or Shalbatana Vallis (after an Akkad language of Mars) looked to separate the dust cloud (to V-shaped one), while the brightness of the cloud over the segment very prevailed. Furthermore to the naked eye the area to the northern-east of Orestes looked rather shadowy and surrounded the roundish cloud. *Mn* observed then, after $\omega=048^\circ\text{W}$, at $\omega=057^\circ\text{W}$, 067°W , 077°W , 087°W , and 096°W (8:50GMT). There was a white mist near the evening terminator and gradually the shadowy surrounding was covered by mist, and the bright dusty part was gradually confined to the west of Electra. Laurie HATCH observed for an hour from 9:00GMT (2:00PDT), and a made a colour drawing where the dust area was near the terminator and looked yellow-whitish. *Mn* stayed inside the big dome for about four hours, and finally returning to the waiting room, he found several important emails already reached: At 5:12GMT, *JWn* wrote a returned mail to *Mn*'s with his images made at 4:40GMT ($\omega=038^\circ\text{W}$), and *EGf* sent out at 5:15GMT a Red image. It was also found *SKw* observed until 5:04GMT. So her observation at Germany was well connected with the observations at the West Coast. Furthermore at 5:21GMT, *JWn* dispatched a third one, and at 6:09GMT resp at 8:41 GMT *CSr* resp *DPk* sent out emails: *DPk*'s contained a set of images made at 4:32GMT ($\omega=034^\circ\text{W}$). During *Mn*'s further stay in the room, he received another email from *EGf* at 9:56GMT with the final images made at 6:42GMT ($\omega=065^\circ\text{W}$), and also images of PHILLIPS (*JPh*) at 10:19GMT which was made at 7:00GMT ($\omega=070^\circ\text{W}$), and of GASKELL (*MGs*) at 11:03GMT with an image at 4:41GMT ($\omega=036^\circ\text{W}$). After the observations at Lick, *Mn* spent sometime in talking with Rem and Laurie, especially with Laurie on the colour nuances of Mars until about 4h AM PDT. Then *Mn* wrote CMO Notice #01 (cited #311 p236) and sent to *Mk* at Yokohama (to be forwarded to the CMO members). Leaving the Observatory, *Mn* got to the lodging room (attached to Astronomers Dining Hall) at 5:45PDT(=12:45GMT). *Mk* dispatched Notice #01 from cmo@ at 13:48 GMT. The following day we noticed WALKER (*SWk*)'s good image which had been produced at 3:04GMT ($\omega=012^\circ\text{W}$), earlier than *JWn*'s, reached at 15:50GMT. Otherwise we came also to notice that ADELAAR (*JAd*) in Holland had shot much earlier at 1:07GMT ($\omega=344^\circ\text{W}$) where already the dust cloud was fully shown inside near the morning limb. Noteworthy is the fact that this and those taken by *SKw* at $\omega=353^\circ\text{W}$, 358°W , 003°W , 008°W , 013°W , 017°W , 022°W , 027°W , 032°W , 037°W , 042°W (5:04GMT) as well as those taken in the US prove that the dust cloud as a whole was stable from the early morning to the late evening and did not show any drastic change: This well conforms to our hypothesis that the dust cloud is born in the early morning and rather stable in the daytime. Because of ι , a bit of area near the dawn terminator was not yet seen, while preceding to *JAd*'s work, British work by PEACH (*DPc*) at $\omega=326^\circ\text{W}$ (17 Oct GMT), by TYLER (*DTy*) at $\omega=330^\circ\text{W}$, and by *DAr* at $\omega=336^\circ\text{W}$ all show a tip of the dust cloud near the limb and so prove that the dust cloud was born within an hour from the hidden terminator. The contributed images from the US are as follows: $\omega=012^\circ\text{W}$ (*SWk*), 017°W (*JWn*), 031°W (*WDc*), 034°W (*DPk*), 038°W (*JWn*), 041°W (*CSr*), 048°W (*Mn*), 051°W (*WDc*), 053°W (*FMI*), 057°W (*Mn*), 060°W (*CSr*), 065°W (*EGf*), 067°W (*JWn*, *Mn*), 070°W (*CSr*, *JPh*), 077°W (*Mn*), where *WDc*=DICKINSON, *FMI*= MELILLO.

18Octのクリュセ南部黄雲：13/14Octにペリエ(CPI)氏によってエオスに黄塵の立つのが指摘され、ヨーロッパの多くによって追跡されたが、これは直ぐに潜在化した。然し、18Oct($\lambda=308^\circ\text{Ls}$)に大バケし、而も殆どその朝方の発生時から日没まで追跡されるという希有な例となった。ただ、未だ ι が 18° で、朝方一時間が見えなかったのは残念であった。この黄雲の発生はドイツのシルヴィア・コヴォツリク(*SKw*)さんが先ず氣附いて1:55GMTにMk氏と筆者に直接emailで知らせて来た事に始まる(彼女の最初

のccd像が1:45GMT($\omega=353^\circ\text{W}$)であるから実視かモニターかで確認して即刻である)。内容は#311 p228に記録してある様に「シーイングは3~4/10で好くないが、クリュセ地方がおかしいと思う、邊りは非常に明るくて"圓い"、まるでヘッラス盆地の様だ」というものであった。2hGMTといえば、アメリカ西海岸の当時の時刻PDTでは19hになる。リックの「天文学者の食堂」の夕食はキッカリ18hに始まり、三十分ぐらいで済ませるとしても、私は通常三十分ぐらい部屋で休んでいたの(私の部屋は食堂の建物内にあった)、天文臺へ出掛けるのは19h頃になる譯であるが、日誌によるとこの日は少し早め目に出掛けた様である。この頃は日没の頃で、未だ西空は明るく、天文臺の表側に廻ると下のサンノゼの灯りの上に金星が輝いている風景であった。この日は雲もあり風も吹いていてシーイングは好くないナという感觸であった。私が天文臺でemailを読み始めたのは19hPDT(17Oct)=2hGMT(18Oct)前後であるが、丁度SKwさんからのemailが来た頃であり、欧羅巴では彼女他が西空で火星を追っている頃になる。一方日本では11hJST(18Oct)であるから、村上(Mk)氏が通常Webを更新した後になるが、幸いSKwさんのemailをチェックしたらしく、2:50GMTに私に(私のvzvが時たま二重ログインになって不通になる爲、もう一つ簡易なアドレスを開設していたこともありCcで)SKwさんのemailをAlertとして轉送して来てくれた。私は逆にMk氏が黄雲發生で通信に関して臨戦態勢に入ったことを知って安心した。この發生を日本人で最も早く知ったのはMk氏か筆者だが、観測は日本では適わない。ただ当時火星が昇ってリックの望遠鏡が動くのは22hPDT以後で、未だ数時間あることになる。火星は大西洋を渡って、アメリカ東海岸、中央部を経て西海岸にやって来る(PDTは西海岸の夏時間である。日本の感覺では21hPSTと合う)。その内20:42PDT (3:42GMT)にはSKwさんから一應の處理畫像が届いた。ただ依然観測中であり、畫像も好くないが、黄雲は確かに出ている。今度は21:20PDT(4:20GMT)になってテキサス北部のウォーレン(JWn)氏からemailが入った(CMO#311p233の17Oct23:20CDTのemail)。この像は3:23GMT($\omega=017^\circ\text{W}$)のもので、CDTで22:23であるから、まだ相當低いと思われるが、黄雲は好く出ている。リックでは22hPDTに近づいたので、JWn氏への全返信の形で21:58PDT(4:58GMT)にSKwさんの結果を知らせ、黄雲が確實なこと、こちらはこれから、というemailを送って、ドームに入った(パソコンを置いてある控え部屋はドームの外にある)。尚、JWn氏の名簿は可成り大きなもので有力な観測者の多くはリストに入っているが、改めてCMO関係には、Mk氏がこれを7:03GMTに轉送した。實は22hPDTを過ぎて、5:12GMTにはJWn氏が更に全返信として4:40GMT($\omega=038^\circ\text{W}$)の畫像を發送し、5:15GMTにはグラフトン(EGf)氏が白黒の畫像をJWn氏のリスト宛に送っているのであるが、私はこれらを見るのは少し後のことになる。また、後で知ったことであるが、ドイツのSKwさんの最後の観測は5:04GMTになされた様であるから、西海岸の火星出まで持續された譯である。筆者の観測は5:30GMT(22:30PDT) $\omega=048^\circ\text{W}$ が最初であるが、火星は未だ低く、大氣状態もよくない。然し、クリュセ南部の黄雲は一見で明白で、この日はオペレーターのレム・ストーン氏もトニー・ミッシュ氏もいたが、どちらとも好く見えるという感想であった(シーハン氏は翌日サンタクルスでのトークの準備の爲かドームには現れなかった)。SKwさんが既に早い段階で「ヘッラスの様に圓く輝いている」と記述しているのは正鵠を得ていると思った。後にハート型とかV字型とか形容されたが、筆者の眼視では充分に圓いし、ひどく明るいのである。V字に見えるというのは、ccエレクトラ或いはシャッパタナ・ワッリス(セム系のAkkad語での火星谷)の一部が暗く浮き出て雲を二分する如くに出ている爲であるが、南中時は肉眼では黄雲の明るさが遙かに勝っている。従って雲が分岐している様には見えない。更に、オレステスから東北は稍暗く感じ、黄雲を縁取りして取り巻いているのが目立つ。筆者は $\omega=048^\circ\text{W}$ の後、 $\omega=057^\circ\text{W}$ 、 067°W 、 077°W 、 087°W 、 096°W (8:50GMT)と續けたが、夕端には白霧があり、次第に縁取りからこれに覆われる様になり、黄雲部でもエレクトラ以西が矢張りより明るく残った。その後ローリー・ハッチさん(写真家)が、9:00GMT (2:00PDT)から一時間ぐらいカラー・スケッチしたが、可成り白く描かれていた。四時間近くドーム内にいて、9:00GMT過ぎに控え室に戻ったが、先に述べた5:12GMTのJWn氏、5:14GMTのEGf氏のemailsの他、5:21GMTのJWn氏、6:09GMTのSCr氏、7:03GMTのMk氏からCMOメンバー宛の轉送(既述)、8:41GMTのDPk氏のemails

が到着していた。DPk氏のemailには4:32GMT $\omega=034^\circ\text{W}$ が添付されていた。その後、部屋に居残っている間に9:56GMTにEGf氏の6:42GMT $\omega=065^\circ\text{W}$ の完成画像、10:19GMTにはフィリップス(JPh)氏の7:00GMT $\omega=070^\circ\text{W}$ 像、11:03GMTにはガスケル(MGs)氏の4:41GMT $\omega=036^\circ\text{W}$ 等が届いている。この間、ストーン氏やハッチさんと話をしている、特にハッチさん(2003年のリックでの観測者)とは火星の色彩について朝方四時PDT頃まで話込んだ。それから獨りになってからNotice#01を書き(#311p236所載のもの)Mk氏に送った。天文臺を出て泊まり部屋に辿り着いたのは5:45PDT(=12:45GMT)であった。日本では5hPDTで21hJSTで、Noticeは13:48GMTにMk氏のcmo@からCMOメンバーにBCcで送られた。このemailも含めて以後は勿論翌日讀んだ譯であるが、他にウォーカー(SWk)氏の画像が15:50GMTに入っている。實はNYに近いSWk氏はJWn氏より早く、3:04GMT $\omega=012^\circ\text{W}$ で見事な像を得ていた。後にヨーロッパではオランダのアデラール(JAd)氏の1:07GMT $\omega=344^\circ\text{W}$ での像(黄雲は朝縁で完全である)が報告され、SKwさんの廿分毎の連続像($\omega=353^\circ\text{W}$, 358°W , 003°W , 008°W , 013°W , 017°W , 022°W , 027°W , 032°W , 037°W , 042°W (5:04GMT))とアメリカでの像を重ね合わせると、この黄雲の全體像は非常に安定して朝から夕没するまで殆ど變化無く移行していることが分かり、これは兼ねてからの黄雲は昼間には大きな發達を見せないという假説を支持する。尤もiの所爲で朝の一時間強は見えないのであるが、阿蘭陀のJAd氏に先行する英國のピーチ(DPc)氏の $\omega=326^\circ\text{W}$ (17OctGMT)、タイラー(DTy)氏の $\omega=330^\circ\text{W}$ 、DAr氏の $\omega=336^\circ\text{W}$ の像はそれぞれ既に黄雲の一部を明るく見せている。一時間以内に既に充分に發達していることも確かであって、黄雲が夜間に作られることはあるまいと考えられる以上、朝方に發生・發達するという假説と抵觸しない。尚同じ理由で、17Octの菱型明斑は夕方だけであるから黄雲ではないと言える。最終的に報告された美國側の観測は次の如くである: $\omega=012^\circ\text{W}$ (SWk)、 017°W (JWn)、 031°W (WDc)、 034°W (DPk)、 038°W (JWn)、 041°W (CSr)、 048°W (Mn)、 051°W (WDc)、 053°W (FMI)、 057°W (Mn)、 060°W (CSr)、 065°W (EGf)、 067°W (JWn, Mn)、 070°W (CSr, JPh)、 077°W (Mn)。DWc=ディッキンソン氏、MFI=メリッロ氏。

♂.....**Succeeding Dusts on 19 Oct:** The dust cloud at the early stage must dissipate if it moves to the night side, and so even if it is still potential it will never preserve the preceding position and form on the following day. If the dust is meteorologically latent at night, it is as it were confined in some of wormholes, and as the next dawn comes it will be evoked or jumped out from an unexpected wormhole. On the next 19 Oct ($\lambda=309^\circ\text{Ls}$), the previous dust at Chryse looked to have subsided, and we were going to receive images where the dust was deformed in a queer way: The present writer (Mn) read at the waiting room at Lick the first email from SKw at 3:02GMT (20:02PDT on 18 Oct) which was accompanied by an image at 1:24GMT ($\omega=339^\circ\text{W}$): This largely showed a dust at the morning limb. Atop Mt Hamilton, however, the sky turned to be poor in the evening and foggy over the San Jose City underneath, and eventually no observation was possible. On the night of 19 Oct GMT, so, Mn only saw the images by JWn, WDc, FMI, though we finally received the following images on the day: $\omega=339^\circ\text{W}$ (SKw), 004°W (DBt), 005°W (SKw), 006°W (SWk), 014°W (SKw), 017°W (JWn), 018°W (SKw), 023°W (WDc), 028°W (WDc), 029°W (JWn), 031°W (ZKv), 039°W (FMI), 042°W (CSr), 045°W (RTm), 050°W (MRs), 051°W (CSr), 054°W (AFr), 059°W (RCv), 063°W (JPh), 065°W (EGf), 094°W (MRs) where ZKv=KOVACEVICH, RTm=TATUM, MRs=ROSOLINA, and AFr=FRIEDMAN. In Europe, the sky must have been poor, while SKw was fortunately able to shoot the morning initial stage of dust at $\omega=339^\circ\text{W}$. Mars moving to the American continent, several excellent images were produced. As a representative image, we may refer to AFr's at $\omega=054^\circ\text{W}$ where the bright streaks of dust were moderately shot. The dust streak was along the valley, and its west was upto Melas Chasma and lying adjacent to the north boundary of Coprates Chasma, and its east was upto Capri Chasma and Eos Chasma. The dust air further extended to its east lower place, and its north-western extension detoured Auroræ Planum but flew to Ganges Chasma. There was also a core near Juventæ Chasma, and Juventæ Fons was so fainter. It should be noted that the dust streak along Agathodæmon was kept away from the lower inside of the valley if Agathodæmon is identical with Coprates Chasma. As to the brightness of the dust streak, see the images by RTm, RCv and EGf. The expansion

of dust existed still at Chryse, as seen from the images by *SKw*. *JWn*'s images at $\omega=029^\circ\text{W}$ also show well a general configuration of the dust on 19 Oct. Judging from the visual observation of *MRs* at $\omega=050^\circ\text{W}$, the dust must have been well bright and large.

19Octの黄塵：初期の黄塵は夕没すると沈静化する筈で、従って次の朝に出現する時は元の形を保存しない。もしポテンシャルが弱ければ消えるが、気象的な条件が揃っている場合は、似た様な處で朝方再構成される。前日發送のNoticeではジャンプすると書いたが、翌19Oct($\lambda=309^\circ\text{Ls}$)には確かに飛躍して奇妙な形の黄塵の像が入電した。*SKw*さんから1:24GMT $\omega=339^\circ\text{W}$ の朝方の畫像が入ったのが3:02GMT (20:02PDT)であるから筆者は控え室で読んでいたのあるが、この日は夕方迄はよい天気であったものの、肝心な頃は月も見えず、下のサンノゼも霧で隠れているという状態で、22hPDTには中止が決定、あとCMOの作業で残ったが、1:30PDT頃には暗い夜道を辿って部屋に戻った。従って、この夜に拝見したのは、*SKw*さんの畫像と、この日も精力的な*JWn*氏のもの、他に*WDc*氏、*FMI*氏のものであったと思う。最終的な像は次の様に拝受している： $\omega=339^\circ\text{W}(\text{SKw})$ 、 $004^\circ\text{W}(\text{DBt})$ 、 $005^\circ\text{W}(\text{SKw})$ 、 $006^\circ\text{W}(\text{SWk})$ 、 $014^\circ\text{W}(\text{SKw})$ 、 $017^\circ\text{W}(\text{JWn})$ 、 $018^\circ\text{W}(\text{SKw})$ 、 $023^\circ\text{W}(\text{WDc})$ 、 $028^\circ\text{W}(\text{WDc})$ 、 $029^\circ\text{W}(\text{JWn})$ 、 $031^\circ\text{W}(\text{ZKv})$ 、 $039^\circ\text{W}(\text{FMI})$ 、 $042^\circ\text{W}(\text{CSr})$ 、 $045^\circ\text{W}(\text{RTm})$ 、 $050^\circ\text{W}(\text{MRs})$ 、 $051^\circ\text{W}(\text{CSr})$ 、 $054^\circ\text{W}(\text{AFr})$ 、 $059^\circ\text{W}(\text{RCv})$ 、 $063^\circ\text{W}(\text{JPh})$ 、 $065^\circ\text{W}(\text{EGf})$ 、 $094^\circ\text{W}(\text{MRs})$ 。*ZKv*=コヴァチェヴィッチ、*RTm*=テータム、*MRs*=ロソリーナ、*AFr*=フリードマン。歐羅巴はこの日は天候不良であった様だが、矢張り*SKw*さんが $\omega=339^\circ\text{W}$ で初期状態を撮像できたのは幸いで、朝方の黄塵の觀察が重要であるという観点から貴重である。アメリカ側に移って全容が分かるが、明るい黄塵のスジの畫像としては*AFr*氏の畫像が穏やかで好いので参照されたい。明るい黄塵は溪谷に沿う様に擴がっていて(*MOLA*の高低圖を参照すると分かる様に)西はメラス・カスマ(*Chasma*は溪谷)迄コプラテス・カスマに沿い、その北側に横たわり、東側はカプリ・カスマとエオス・カスマを這って埋めており、更に東の低地にも張り出し、西北ではアウロラ・プラナムを避けてガンゲス・カスマにも流れている。ユウエンタエ・カスマの近くにもコアがある。尚、もしアガトダエモンが溪谷に一致するなら、黄塵のスジは溪谷を避けていることに注意する。詳細な輝度は、*RTm*氏や*RCv*氏、*EGf*氏の像に據ると好い。然し、黄塵の擴がり、*SKw*さんの初期の連続像によると分かる様にクリュセにも可成り擴がっていて、*JWn*氏の $\omega=029^\circ\text{W}$ 等は全體の擴がりを示している。眼視の*MRs*氏の $\omega=050^\circ\text{W}$ から判断しても相當大きく明るかった様である。

♂.....Dusts on 20 Oct: On 20 Oct ($\lambda=309^\circ\text{Ls}$), *HIDALGO (EHd)* in Spain caught the morning of the dust: Already popped out at $\omega=317^\circ\text{W}$ in G, the dust shows a structure in colour at $\omega=333^\circ\text{W}$. Images at $\omega=338^\circ\text{W}$ and 348°W are also precious. *SKw* also took from midnight at $\omega=330^\circ\text{W}$, 335°W , 340°W , 345°W , 350°W , 355°W , 360°W (3:24GMT, then too dewy): Her images look to be important in the sense they show the morning mist mingled with the dust. Her first report reached Lick at 5:55GMT, while it was too dewy to open the dome at Mt Hamilton, though the sky was fine and dark with shining stars. Hence no observations though we waited up until 2h PDT. In the US, the dust event attracted already the attention of all of the Mars observers, while unfortunately Hurricane Wilma stayed at the Gulf of Mexico. Even though, the following images were reported: $\omega=009^\circ\text{W}(\text{DBt})$, $023^\circ\text{W}(\text{SWk})$, $025^\circ\text{W}(\text{FMI})$, $026^\circ\text{W}(\text{DAd})$, $030^\circ\text{W}(\text{RTm})$, $032^\circ\text{W}(\text{CSr})$, $042^\circ\text{W}(\text{JWn})$, $046^\circ\text{W}(\text{JPh}, \text{KGr})$, $49^\circ\text{W}(\text{KGr})$, $050^\circ\text{W}(\text{JPh})$, $057^\circ\text{W}(\text{KGr})$, $062^\circ\text{W}(\text{EGf})$, $065^\circ\text{W}(\text{KGr}, 7:54\text{GMT})$. *DAd*=ANDERSON. The dust was yet far from Japan, and the first image was at $\omega=147^\circ\text{W}$ (13:30GMT) made by *HEFFNER (RHf)* at Nagoya, and then at $\omega=149^\circ\text{W}$ by *ISHIBASHI (Is)*, and at $\omega=153^\circ\text{W}$ by *HIGA* at Okinawa. At these times the dusty area was already at the rear side, but these together with *MORITA (Mo)*'s images at $\omega=162^\circ\text{W}$, 172°W , 181°W show well the presence of the orographic cloud at Arsia Mons. The Arsia cloud was also visually checked by *MURAKAMI (Mk)* at $\omega=147^\circ\text{W}$, 157°W . The bright parts of the dust are shown by the images by *RTm*, *KGr*, *JPh* and *EGf*, and these look to be generally from the same wormholes of the day before: The dust streak along the north border of Coprates Chasma remains, while the dust expansion to the east of Eos Chasma rather subsided. Auroræ S is darker than the

day before, and Juventæ Fons rather recovered. Generally however the airborne dust aloft looks thicker over the larger area. Especially it affected the southern hemisphere and M Erythræum became dustier than the day before. Since the eastern area welcomes the morning earlier, it should be noted that the west end of Margaritifer S, the steep rise and fall area, is dusty upto the southern high latitudes, maybe upto Argyre. *JWn's* images (especially at $\omega=042^\circ\text{W}$) well show the expansion area of the dust: Note that these also prove that the large south circumpolar region is wine-coloured implying the dust has not yet reach the very higher latitudes (his colour of the nph should be said not real however). At the northern hemisphere, the image by *JPh* shows a light spot to the south of Niliacus L and other images also suggest a similar disturbed nuance.

20Octの黄雲 : この日20Oct($\lambda=309^\circ\text{Ls}$)は西班牙のヒダルゴ(EHd)氏が黄雲部の出てくる様子を待機して撮っている。G光では $\omega=317^\circ\text{W}$ で既に顔を出しているが、カラー像では $\omega=333^\circ\text{W}$ で既に構造を示す。 $\omega=338^\circ\text{W}$ 、 348°W も貴重である。SKwさんは昼は雨にも見舞われたが、幸い夜半から霽れ、 $\omega=330^\circ\text{W}$ 、 335°W 、 340°W 、 345°W 、 350°W 、 355°W 、 360°W (3:24GMT、霧が濃くなる)と撮像でき、特に彼女の像は朝方の水蒸気混交の淡い黄雲の擴がりを表していると思われ重要である。SKwさんの最初の報告は5:55GMTだが、この日のハミルトン山は大快晴であったにも拘わらず、dewが強く、ドーム(九つある)は何處も開かなかったのである(トニーは2hPDTまで待ってくれたが、湿度は下がらなかった様である。室外は気持ちの好い空気に感じるのだが、確かに、露が手すり等に溜まっていた。この程度の湿度では福井では勿論観測するので、小回りの利かない望遠鏡を相手にするときは20cmSCTぐらいを持参すると好いだらう)。扱てこのころ美國では何處でも黄雲に注目が集まっていたと思うが、ハリケーン・ウィルマーがフロリダを窺っている時ではなかったかと思う。それでも可成り報告があった。詳細は英文の部参照(DAd=アンダーソン氏)。まだ太平洋が廣く、日本ではやっとソリス・ラクスが掛かったが、ヘフナー(RHf)氏の像は13:30GMTで $\omega=147^\circ\text{W}$ 、石橋(Is)氏 $\omega=149^\circ\text{W}$ 、比嘉(Hg)氏 $\omega=153^\circ\text{W}$ というところであった。この時刻では黄雲は沈んでいるが、これらの畫像も含めて森田(Mo)氏の $\omega=162^\circ\text{W}$ 、 172°W 、 181°W 等、アルシア・モンスの山岳雲が健在であることを示している。アルシア雲は眼視では村上(Mk)氏が $\omega=147^\circ\text{W}$ 、 157°W で確認している。黄雲の明るい部分はRTm氏やKGr氏、JPh氏、EGf氏の像で判断できるが、基本的に前日と同じで、コプラテス・カスマの北側に沿うスジは残っており、前日のエオス・カスマの東側の黄塵は薄くなっている程度。アウロラエ・シヌスも前日より比較的濃く、ユウエンタエ・フォンスも稍回復しているが、全體には黄雲が可成り高く昇って漂っている様である。特に、南のマレ・エリュトウラエウムには前日に比して可成り廣範圍に黄雲が登ってきた。朝を迎えるのは東側が早い譯だが、マルガリティフェル・シヌスの西端(高低差が際立つところ)に沿って可成り高緯度迄この黄雲の東端が出ておりアルギュレに延びているかも知れない。この日のJWn氏のccd像(特に $\omega=042^\circ\text{W}$)は(北極雲の色がおかしいが)黄雲の擴がりをよく示している。然し、南極域はワインカラーで、まだ黄雲が来ていないと思われる。尚、北の方でJPh氏の畫像はニリアクス・ラクスの南に光点を示しており、他の像にも相應の亂れがある。

♂.....Onset of a Solis L Dust Core on 21 Oct: As stated, the evolution of any dust storm is dissimilar to the movement of the terrestrial Typhoon or Hurricane: The dust at the initial critical period is to rather subside during the night and re-organises in the early morning but the places where the re-onset takes place look to be probabilistically determined. We cannot say God or Mars play never play Dice. On 21 Oct ($\lambda=310^\circ\text{Ls}$), SKw was on alert but unfortunately clouded, while JAd at Holland first showed that Eos core still existed at 2:33GMT ($\omega=338^\circ\text{W}$), and JSc detected a bright core at the morning Solis L at 5:05GMT ($\omega=015^\circ\text{W}$) and 5:19GMT ($\omega=019^\circ\text{W}$). This should imply a development from a new different wormhole. Still $\tau=16^\circ$, and hence the dawn line was away by one hour but Solis L was completely inside since $19+90=109$. In the US, observations had begun already, WIRTHS (MWs) took at $\omega=357^\circ\text{W}$ and DBt at $\omega=000^\circ\text{W}$ showing the Argyre and Eos clouds, and the US observations continued as follows: $\omega=026^\circ\text{W}$ (CSr, Mn), 031°W (KGr), 038°W (RCv, KGr), 039°W (CSr), 044°W (JWn).

045°W(RCv, EG), 052°W(AFr), 053°W(CSr), 055°W(Mn), 065°W(Mn), 074°W(ELm), 075°W(Mn), where *Elm*=LOMELI at Sacramento. This night, atop Mt Hamilton, it was also very fine and seeing was fair. The locations of the dust cores were matters of primary concern, and at $\omega=026^\circ\text{W}$, in addition to the large expansion of airborne dusts, three cores were evident to the present writer (*Mn*). One was near Eos Chasma, the second was at the area between the west Argyre and Bosporos, and the third was near the morning limb at the eastern Solis L. The one at Eos was brighter and thicker than the day before to the east of the cloud along Coprates Chasma, and the second one at Argyre was the new core that was quite bright. The ccd images taken later show that it was divided into two, but visually the core was as a whole very bright and the division is not so evident, and on the contrary the northern boundary band looked very dark (darker than the one taken by the ccd). The core on Solis L was clearer on the image of *KGr* at $\omega=031^\circ\text{W}$. At Lick, Laurie HATCH observed the core and took a colour drawing of the disk. *Mn* re-began at $\omega=055^\circ\text{W}$ when the core was very evident: Phasis was visible and its preceding dark remnant of Solis L was seen so that the scale of the dust core became clear. This core reminded *Mn* of the Solis L dust core observed in 1973 which developed later into an encircling storm. The dark band which was adjacent to the northern border of the Argyre core was still clear but gradually faded as well as the core itself, and thus at $\omega=075^\circ\text{W}$ the Solis L core was brighter near the CM. Refer to *ELm*'s image at $\omega=074^\circ\text{W}$. The general expansion of airborne dust looked quite larger on the day, and the expansion over M Erythræum looked to start from around $\Omega=000^\circ\text{W}$. Margaritifer S was still dark, and Auroræ S was rather recovered. As to the general aspect of the dust over the wide area seen from the US, refer to the images of *JWn* at $\omega=044^\circ\text{W}$, and as to a further minute light and shade as well as very nuances of colour, refer to the images by *EGf* at $\omega=045^\circ\text{W}$, and by *AFr* at $\omega=052^\circ\text{W}$. The image at $\omega=178^\circ\text{W}$ made by Canon LAU (*CLa*) at Hong Kong showed still the white cloud at Arsia Mons, and hence the westward expansion from $\Omega=100^\circ\text{W}$ must have not been so thick.

21Octのソリス・ラクス黄塵：以下黄塵は幾らか発展するのであるが、黄塵のコアが発展するという意味は、颱風が移動する如き現象とは違っている。臨界期にあるコアは基本的には夜は沈静化し、翌朝再び発生するが、初期においては何處でコアが再現するか、確率的である。火星黄塵の場合神様は博打をするのである。この日(21Oct($\lambda=310^\circ\text{Ls}$))はSKwさんの處は曇った様であるが、黄塵の正面は歐羅巴から美國大陸に移って來た。然しJAd氏の2:33GMT $\omega=338^\circ\text{W}$ はエオスの黄塵が依然存在すること、ヘスス・サンチェス(JSc)氏は(これは後に同定したのであろうが)ソリス・ラクス上に既に明るい黄塵のコアの出ていることを5:05GMT $\omega=015^\circ\text{W}$ 、5:19GMT $\omega=019^\circ\text{W}$ で示している。依然 $i=16^\circ$ であるから、夜明け後一時間は未だ向こう側だが、 $19+90=109$ であるから、ソリス・ラクスは圓盤の中に入っている譯である。畢竟新發展を意味する。美國大陸では既に觀測が始まっていて、カナダのワース(MWs)氏が $\omega=357^\circ\text{W}$ 、DBt氏が $\omega=000^\circ\text{W}$ でアルギュレとエオスの雲を撮像し、更に以下、アメリカでは次の様に續く： $\omega=026^\circ\text{W}$ (CSr, Mn)、 031°W (KGr)、 038°W (RCv, KGr)、 039°W (CSr)、 044°W (JWn)、 045°W (RCv, EGr)、 052°W (AFr)、 053°W (CSr)、 055°W (Mn)、 065°W (Mn)、 074°W (ELm)、 075°W (Mn)。ハミルトン山はこの夜は快晴、而もシーイングは初めから上々であった。先ずコアがどの様に配置されているかは重要な觀測點であるが、筆者(Mn)の $\omega=026^\circ\text{W}$ では、黄塵の擴がりの他に三つの明るいコアが既に明白であった。一つはエオス・カスマの邊りに在り、もう一つはアルギュレ西端とボススポロスに掛けて、更に朝端のソリス・ラクス東部に既に淡く見られた。エオスのものは前日迄のコプラテス・カスマに沿う黄塵の東に明るく濃化した部分であり、アルギュレ方向のものは新しいコアで、これは非常に明るかった。後のccd像で二つ玉の如くに見えるが、實際はコア全體が明るく、二つ玉は明確ではない。逆にその明るさの爲か、コアの北端はクッキリと暗い太い縁で囲われた様に見える。ソリス・ラクス上のコアはKGr氏の $\omega=031^\circ\text{W}$ で明白であるが、この頃はリックでハッチさんがこのコアをスケッチしていた。筆者は $\omega=055^\circ\text{W}$ で再開したが、この頃には勿論クッキリハッキリで、パシスとその先の暗斑が明確に残っていたから、ソリス・ラクスのまだ黄塵の被さっていない

い暗部など周囲が明確になった。このコアは $\omega=065^\circ\text{W}$ では、1973年十月大黃雲の初期状態の核を思い出させるものであった。アルギュレ方向のコアの北側の暗縁は未だ際立っていたが、 $\omega=075^\circ\text{W}$ ではコアも含めて少し緩んで来たが、ソリス・ラクスのコアは明るく南中であった。ELm氏の $\omega=074^\circ\text{W}$ 参照。尚、黄雲の擴がりは可成り大きくなり、マレ・エリュトウラエウム上の擴がりは $\Omega=000^\circ\text{W}$ から始まっている。マルガリティフェル・シヌスは未だ濃く、アウロラエ・シヌスは寧ろ回復した方である。全體の様子はJWn氏の $\omega=044^\circ\text{W}$ が好く表現しているが、微妙な細かな濃度・色の違いはEGf氏の $\omega=045^\circ\text{W}$ 、AFr氏の $\omega=052^\circ\text{W}$ が詳しい。黄雲後方については、香港のCLa氏の $\omega=178^\circ\text{W}$ にはアルシア雲が明白で、 $\Omega=100^\circ\text{W}$ 以西には黄雲が影響していない様である。

♂.....**Dust distributions on 22 Oct and 23 Oct:** On 22 Oct ($\lambda=311^\circ\text{Ls}$), we received an email from SWk near NY at 21:33PDT (4:33GMT) which showed an image taken at 2:40GMT ($\omega=331^\circ\text{W}$). This showed already a faint dust activity at Noachis, and it looked to be associated with a condensate mist. At Lick, after reading his email, the present writer started from 5:30~5:50GMT ($\omega=014^\circ\text{W}$): The seeing was fair. The east boundary of the thicker part of wide area dust was seen longitudinal at $\Omega=350^\circ\text{W}$, and the light and shade of the following dust was quite complex. The morning limb was whitish bright, while the south circumpolar area was wine coloured. The dust reservoir around Eos was still seen, and Auroræ S was isolated and showed a dark tail to the west. There was seen a variation at Argyre, and it looked the dust was much aloft to the extent that the core was spread. The northern deserts appeared however reddish, and so the airborne dust was thin. At this time Solis L was near the limb, and so the main part of dust event was said to have moved to the American continents, though DPc and DTy in England took important observations at $\omega=299^\circ\text{W}$ (00:28GMT) and at $\omega=300^\circ\text{W}$ respectively that the Noachis cloud was mingled with the condensate mist (B and G images). SKw's images in Germany at $\omega=352^\circ\text{W}$, 356°W also showed the mixed situation of the dust and water vapour. In the New Continent, MWs and DBt produced images at $\omega=354^\circ\text{W}$: MWs's is nice since it is comparable with his image at $\omega=357^\circ\text{W}$ on the day before and they show a delicate difference of the dust distribution. SWk nr NY was endowed with a good seeing condition, in addition to the image at $\omega=331^\circ\text{W}$, chased further and obtained successively images at $\omega=342^\circ\text{W}$, 348°W , 359°W , 006°W , 012°W , and 018°W . All are excellent and show the distribution of cloud from Noachis to the west. The present writer (Mn) chased him and, after $\omega=014^\circ\text{W}$, observed at $\omega=024^\circ\text{W}$, 034°W , 044°W , 053°W , and ended at $\omega=068^\circ\text{W}$. Seeing was still fair, while it became harder to determine the proportion of the unusual markings. The distribution of dust at the western part of M Erythræum was different than the day before. The core over Solis L reappeared suggesting that the core had been alive at night also, and now showing an egg-like shape it looked quite developed. However the western border of the usual Solis L was there and at $\omega=053^\circ\text{W}$ Phasis and Claritas were recognised, and so we had an impression that the core seemed not yet to expand westward. The west end of Auroræ S (Juventæ Fons being visible) was near the CM, but apparently the darker M Erythræum looked as if it expanded beyond Bosporos Planum and made a part of Thaumasia (including Nectar) darker. It was partly because of the contrast effect, but it was very possible that the sands at Thaumasia was being blown aloft and absorbed in the ascending air of the core. Now the core itself looked similar to one of the two dust cores observed on 15 October 1973. At $\omega=068^\circ\text{W}$, the core showed a brighter core inside the core, and a further fine structure was visible. At around $\omega=055^\circ\text{W}$, there obtained good images by ELm, JWn and ROEL (ERI), and especially the image of Elm at $\omega=077^\circ\text{W}$ (9:54GMT) was excellent. He showed the image differently in various processed ways. During Mn's session at $\sim\omega=068^\circ\text{W}$, he noticed a white brightish limb haze at the southern high latitudes. This might have been the same as those observed by DPc and DTy at $\omega=330^\circ\text{W}$. It is interesting to note there is a question whether it has to be accompanied by the water vapour when the dust makes a burst popped out from a wormhole in the morning. Unfortunately however the limb condensate seen around $\omega=068^\circ\text{W}$ was not accompanied by any burst judged from the following observations in Asia-Oceania. After the observations on 22 Oct, Mn sent to Mk an alert of CMO Notice #02 at around 10hrs GMT

in order to ask to chase the following region since the Solis core reminded him of the initial stage of the 1973 case. *Mk* forwarded this to the CMO colleagues at 14:13GMT. On 22 Oct, the dust core at Solis L was caught in Asia-Oceania near the evening terminator. The dust was shot by *Hg* at $\omega=120^\circ\text{W}$ (12:52GMT), by *Km* at $\omega=122^\circ\text{W}$, by *RHf* at $\omega=130^\circ\text{W}$, by BUDA (*SBd*) at $\omega=132^\circ\text{W}$, by *Hg* at $\omega=133^\circ\text{W}$, by ADCOCK (*BAd*) at $\omega=146^\circ\text{W}$. The contour of the core is clear on the image by *RHf* at Nagoya which further shows its shape remained the same as that shown by *Elm* at Sacramento at $\omega=077^\circ\text{W}$ (4 hrs apart). Much later on 22 Dec at 23:37GMT, *DPc* took images at $\omega=278^\circ\text{W}$ which already showed the high-latitude morning mist. This turns to be mingled with a spread of dust at $\omega=308^\circ\text{W}$ (already at 1:40GMT on **23 Oct** ($\lambda=311^\circ\text{Ls}$)), and it is also apparent on ORTEGA (*JOr*)'s image at $\omega=310^\circ\text{W}$. *DPc* further chased as follows $\omega=311^\circ\text{W}$, 327°W , 330°W , 335°W . SHARP (*ISp*) also produced a good image of the morning mist at $\omega=320^\circ\text{W}$. *SKw* on 23 Oct observed partially parallel to *DPc* at $\omega=327^\circ\text{W}$, 330°W , 334°W , 339°W , 344°W . The description is different, but *SKw*'s also show the mixed state of condensate and dust at the western Noachis. Visually BIVER (*NBv*) depicted a tint of dust in his colour drawing at $\omega=321^\circ\text{W}$. In the US on 23 Oct, *JWn* shot at $\omega=352^\circ\text{W}$ and complimented *SKw*. *JWn* took then at $\omega=022^\circ\text{W}$: The spread at Noachis looked, roughly speaking, similar to that on the preceding day implying that no core had been produced the day before. Before that, *ERl* took at $\omega=003^\circ\text{W}$. More important chance was caught by *CSr* at $\omega=012^\circ\text{W}$ and by *EGf* at $\omega=014^\circ\text{W}$ (6:13GMT) when the core on Solis L was near the morning limb though still $\iota=14^\circ$. The present writer on 23 Oct first observed at 22:40PDT (5:40GMT) at $\omega=006^\circ\text{W}$, and at the second session at $\omega=015^\circ\text{W}$ (6:20GMT) definitely saw the second day egg-shaped dust core on Solis L (the western dark remnant of Solis L was again outlined at 6:30GMT). The dust aspect at the preceding front of Noachis and the western part of M Erythræum were slightly different but not so. The dust reservoir around Eos was weaker. The area around the spc looked wine coloured. Chryse was reddish. *Mn* then observed at $\omega=025^\circ\text{W}$, 035°W , 045°W , and finally at $\omega=054^\circ\text{W}$ (9:00GMT=2hrsPDT). Connected with the preceding dust, the southern part of Margaritifer S became slightly fainter than the day before. The most interesting core over Solis L grew very brighter and bigger with clear contour and a complicated inner structure. The east end of the core showed the same latitude as Melas L. Ophir-Candor was also bright in another egg-shape, while the latter was distinctly more reddish and less bright than the Solis L dust core. In the US, following *CSr* and *EGf* in the above, images were made at $\omega=023^\circ\text{W}$ (*RMg*), 025°W (*CSr*), 032°W (*ELm*), 036°W (*ELm*), 039°W (*RCv*), 048°W (*ELm*), 054°W (*ELm*), 060°W (*ELm*), 061°W (*WDC*), 063°W (*WDC*) where *RMg*=MEGNA. A series of *ELm*'s are excellent and instructive. The broad dust stream via Argyre eastward curved from the Solis L core looked grossly similar to that on 22 Oct. In Japan, UMEBAYASHI (*Um*), informed from ASADA (*As*), took an image of dust stream though Mars was not yet high enough at 11:20GMT (20:20 JST; $\omega=089^\circ\text{W}$) just 2 hrs later than *WDC* at Virginia. Visually NARITA (*Nr*) at Kawasaki watched the dust at $\omega=098^\circ\text{W}$, 108°W , 118°W , and the ccd images were obtained by *MVI* in Melbourne at 108°W , *Km* at Sakai at $\omega=129^\circ\text{W}$, and *Mo* at Hiroshima at $\omega=112^\circ\text{W}$ (12:55GMT), 117°W , 125°W , 135°W , 145°W and finally at 154°W (15:50GMT). The core gradually went to the rear side. At the following area, it was like the Arsia cloud was much weaker than the case on 20 Oct. On 23 Oct, the nph behaved quite interestingly, and dark hole or segment on M Acidalium appeared very conspicuous.

22Oct, 23Octの黄雲: 22Oct($\lambda=311^\circ\text{Ls}$)には21:33PDTにSWk氏から送られて来た2:40GMT $\omega=331^\circ\text{W}$ の画像が最初ではなかったかと思う。明らかに既にノアキスの方で淡い黄雲活動が出ており、而もその朝方には白霧が混じる。控え室でこれを拝見してからの筆者の観測は5:40GMT $\omega=014^\circ\text{W}$ が最初で、ノアキスの $\Omega=350^\circ\text{W}$ 邊りに南北縦に黄雲の東端が見え、西側の黄雲部は矢張り様子が複雑である。エオス・カスマの邊りの黄雲溜りは依然として在り、アウロラエ・シヌスが分離して尻尾を東に見せている。アルギュレの方には変化があり、少し上空に昇ってコアが擴がっている様である。但し、北半球の砂漠は何處も赤っぽくて黄雲は浅いと思われた。この日のDPc氏の $\omega=299^\circ\text{W}$ (00:28GMT)、DTy氏の $\omega=300^\circ\text{W}$ はノアキス黄雲が白雲に包まれて登場して来ていることを(特にB、G像)が示している。

SKwさんは $\omega=352^\circ\text{W}$ 、 356°W で撮り、ここでも黄雲の擴がり白霧混じりであることを示している。大西洋を越えてMWs氏とDBt氏が $\omega=354^\circ\text{W}$ で撮っている。MWs氏の畫像は彼の前日の $\omega=357^\circ\text{W}$ に近いからアルギュレ黄雲の違いがよく判って好い。尚SWk氏はこの日シーイングに恵まれて、先の $\omega=331^\circ\text{W}$ を初め、 342°W 、 348°W 、 359°W 、 006°W 、 012°W 、 018°W と追跡した。どれも秀逸でノアキスから西の分布を示す。筆者はその後を追って先の $\omega=014^\circ\text{W}$ の後、 024°W 、 034°W 、 044°W 、 053°W と觀測し、 $\omega=068^\circ\text{W}$ で締め括った。シーイングは上々だが、火星が高くなるに聯れて、模様ネットワークが通常のものではないから、視野内の南北線が覗く度に狂って甚だ苦勞した(床は上下するので軀の伸び縮は楽なのであるが、椅子が回転するので狂うのであろう)。マレ・エリュトウラエウム西部は21Octと違っているが、問題はソリス・ラクス上のコアで、ここは21Octのコアが夜間にも可成り残っていたのだと思う。これは卵形に發達して現れ、明らかに強くなっているが、ソリス・ラクスの西部は未だ濃く残り、 $\omega=053^\circ\text{W}$ でパシスとクラリタスは確認できたから、西側には止まっているという印象であった。このときアウロラエ・シヌスの西端(ユウエンタエ・フォンスも見えている)がCMを通過しているから、この位置で見ると明らかにマレ・エリュトウラエウムがボスポロス・プラナムを越えて西に張り出して、タウマジアの明部の何分の一かが暗くなっているのが判る。これはコアの明るさによるコントラストもあるかも知れないが、タウマジアの砂が舞い上がってコアの上昇氣流に吸い込まれた結果の様に思えた。ソリス・ラクスのコアは1973年ソリス・ラクス黄雲の15Octの黄塵の一部によく似ていた。 $\omega=068^\circ\text{W}$ では、コアの中でも北部に更にコアがあり、内部構造も見える。 $\omega=055^\circ\text{W}$ 周りには、ELm、JWn、ロエル(ERI)各氏の良像が揃っており、ELm氏の $\omega=077^\circ\text{W}$ (9:54GMT)は美事である。ELm氏は同じ像を處理を換えて幾つか展示するので参考になる向きもあろう。尚、筆者の觀測中($\sim\omega=068^\circ\text{W}$)南半球高緯度の朝縁には明るい濃い白霧がくっついていて、これはDPc、DTy兩氏の $\omega=330^\circ\text{W}$ の畫像に出ているものと同質と考えられるが、ここに黄雲の素が在るかどうかに依って混合が起こるかどうかが決まるであろう。22Octの觀測終了後ソリス・ラクス黄塵が1973年ソリス・ラクス黄雲の初期に似ていることから、CMONotice#02を10hrsGMT頃にMk氏に送った。Mk氏はこれをCMOメンバーに轉送した。續く22Oct後半では、アジア-オセアニアでも夕方のソリス・ラクス黄塵が捉えられ、Hg氏の $\omega=120^\circ\text{W}$ (12:52GMT)、Km氏の $\omega=122^\circ\text{W}$ 、RHf氏の $\omega=130^\circ\text{W}$ 、ブダ(SBd)氏の $\omega=132^\circ\text{W}$ 、Hg氏の $\omega=133^\circ\text{W}$ 、アドコック(BAd)氏の $\omega=146^\circ\text{W}$ で捉えられている。RHf氏の像は輪郭が明確で、カリフォルニアのELm氏の像($\omega=077^\circ\text{W}$)の黄塵と變化がないことを示している(四時間差)。尚、上の南高緯度の朝縁の白霧には黄雲は混じらなかつた如くである。一方ノアキスの方は一旦沈んだ後、DPc氏によって23:37GMT $\omega=278^\circ\text{W}$ から捉えられるが、南高緯度朝霧は既に出ている。然しこれが黄雲と混じって来るのは、明けて23Oct($\lambda=311^\circ\text{Ls}$)の $\omega=308^\circ\text{W}$ (1:40GMT)頃からであつて、オルテガ(JOr)氏の $\omega=310^\circ\text{W}$ にも明瞭である。DPc氏の畫像は $\omega=311^\circ\text{W}$ 、 327°W 、 330°W 、 335°W と續く。シャープ(ISp)氏の $\omega=320^\circ\text{W}$ の朝方も綺麗である。SKwさんは $\omega=327^\circ\text{W}$ 、 330°W 、 334°W 、 339°W 、 344°W とDPc氏と重なり乍ら續け、描寫は違ふがノアキス西部の水蒸氣混交黄雲を撮す。眼視のビヴェール(NBv)氏は $\omega=321^\circ\text{W}$ で黄雲の色を出している。美國大陸ではJWn氏が $\omega=352^\circ\text{W}$ でSKw氏を補完し、次に $\omega=022^\circ\text{W}$ で撮っている。ノアキスの黄雲は大まかには前日から然程大きな變化がない形で再生されているが、多分前日この邊りに核が發生しなかつた爲であろう。ERI氏に $\omega=003^\circ\text{W}$ に續く、CSr氏の $\omega=012^\circ\text{W}$ とEGf氏の $\omega=014^\circ\text{W}$ (6:13GMT)の像はソリス・ラクスのコアを西端で捉えていて重要である。筆者は22:40PDT(5:40GMT) $\omega=006^\circ\text{W}$ が最初であるが、矢張り $\omega=015^\circ\text{W}$ (6:20GMT)で玉子型のソリス・ラクスのコアを明確に確認した(西側のソリス・ラクス残滓による輪郭は6:30GMTに確認)。ノアキス黄雲の東方前面、マレ・エリュトウラエウム西部には22Octと稍違いがあるが然程ではない。エオス邊りの低い雲はやや弱い。南極冠の周りは依然ワインカラーで、クリュセは赤い地肌である。筆者は以降 $\omega=025^\circ\text{W}$ 、 035°W 、 045°W 、 054°W (9:00GMT=2hrsPDT)と觀測した。前方の黄雲と關聯して、マルガリティフェル・シヌスの南部中心が22Octに比べて淡化して來ている。ソリス・ラクス上のコアは非常に明るく、

内部にモヤモヤがあるが稍大きくなった。同じ玉子型に見えるオピル・カントルも明るい、後者は明るさで劣り、而もこちらは地肌の赤色を見せていて、違いが際立っていた。コアの東端はメラス・ラクスと同じ経度に見える。美國ではCSr氏、EGf氏の後、 $\omega=023^{\circ}\text{W}(\text{RMg})$, $025^{\circ}\text{W}(\text{CSr})$, $032^{\circ}\text{W}(\text{ELm})$, $036^{\circ}\text{W}(\text{ELm})$, $039^{\circ}\text{W}(\text{RCv})$, $048^{\circ}\text{W}(\text{ELm})$, $054^{\circ}\text{W}(\text{ELm})$, $060^{\circ}\text{W}(\text{ELm})$, $061^{\circ}\text{W}(\text{WDC})$, $063^{\circ}\text{W}(\text{WDC})$ と續く(RMg=メグナ氏)。ELm氏の連続像は良質で詳細なども参考になる。ソリス・ラクスのコアから黄雲がカーヴして東に流れているような感じは22Octと變らないが、明るいスジがある。23Octには日本では淺田(As)氏から話を聞いた梅林(Um)氏が既に11:20GMT東の空低く $\omega=089^{\circ}\text{W}$ に黄雲を撮像した。ヴァージニアのWDC氏の朝まだきの撮影から二時間程の差である。眼視では成田氏(Nr)が $\omega=098^{\circ}\text{W}$, 108°W , 118°W で追っている。ccdではMVI氏が 108°W 、Km氏が $\omega=129^{\circ}\text{W}$ 、Mo氏が $\omega=112^{\circ}\text{W}(12:55\text{GMT})$, 117°W , 125°W , 135°W , 145°W , $154^{\circ}\text{W}(15:50\text{GMT})$ と追っている。コアは静かに沈んで行ったが、後方では20Octに比べて、アルシア雲が黄雲の影響で衰退している。尚、この日のマレ・アキダリウム上の北極雲は濃淡が際立っており、マレ・アキダリウムの北部の一部がこれ迄で最高に濃い様に思われた。

♂.....**Dust on 24 Oct:** On 24 Oct ($\lambda=312^{\circ}\text{Ls}$), SKw started from $\omega=287^{\circ}\text{W}$ and obtained 11 images every twenty minutes. The Noachis dust popped out from the morning mist at around $\omega=311^{\circ}\text{W}$, and the configuration of dust was captured on the images at $\omega=316^{\circ}\text{W}$, 321°W , 326°W , 335°W , 340°W , 345°W . DAd in South Carolina took image at $\omega=346^{\circ}\text{W}$, FMI at 348°W (5:03GMT) but the longitude was shallow. However JWn at $\omega=027^{\circ}\text{W}$ (7:45 GMT) caught the Solis L core. The present writer (Mn), final night on Mt Hamilton, could chase the area in question under a good seeing condition as follows: $\omega=354^{\circ}\text{W}$, 004°W , 014°W , 026°W , 041°W (8:40GMT). The east expansion of the dust at Noachis was weak, but it looked a lot of dust had been brought aloft and the general feature lost the contrast: Just the lower east-northern part of S Sabæus appeared quite dark (bar-like) while other parts became fainter and contrarily Deucalionis R looked shadowy. S Sabæus thus did not appear to be normal, and Tony, Laurie and Mn discussed at the ocular position about its form in comparison with the description of S Sabæus drawn by E E BARNARD in 1894 (Laurie first detected Brangæna at Aram this occasion). The southern part of Margaritifer S became further fainter. At $\omega=004^{\circ}\text{W}$, the southern morning limb showed up brighter, and at $\omega=014^{\circ}\text{W}$ the core over Solis L appeared. This was the fourth day, and the density of dust looked thinner, and it was thought the surface dust had been mostly blown upward during the four days. The northern dark part of Solis L looked to have slightly recovered. The dust around Argyre was still seen, while its southern boundary (M Oceanidum) appeared darker and broader. The westward expansion was another problem, but according to the following observations in Asia-Oceania, there was not witnessed any core. The visual observations in Japan were made as follows: $\omega=080^{\circ}\text{W}(\text{Nr})$, $090^{\circ}\text{W}(\text{Nr})$, $095^{\circ}\text{W}(\text{Mk})$, $099^{\circ}\text{W}(\text{Nr})$, $104^{\circ}\text{W}(\text{Mk})$, $109^{\circ}\text{W}(\text{Nr})$, $114^{\circ}\text{W}(\text{Mk})$, $124^{\circ}\text{W}(\text{Mk})$, $134^{\circ}\text{W}(\text{Mk})$. The ccd observations in Japan, the Philippines, Hong Kong and Australia were made at $\omega=097^{\circ}\text{W}(\text{Is})$, $101^{\circ}\text{W}(\text{Km})$, $113^{\circ}\text{W}(\text{Km}, \text{Ak})$, $117^{\circ}\text{W}(\text{CLa})$, $122^{\circ}\text{W}(\text{MVI})$, $127^{\circ}\text{W}(\text{RHf})$, $136^{\circ}\text{W}(\text{CLa})$, $139^{\circ}\text{W}(\text{CLa})$, where Ak=AKUTSU. The last image still shows the Solis L dust core. We finally note that the nph behaved interestingly, and on 24 Oct there was a bright streak along Deteronilus which extended to Niliacus L.

24Octの黄雲: この日(24Oct($\lambda=312^{\circ}\text{Ls}$))にはSKwさんが $\omega=287^{\circ}\text{W}$ から廿分毎に十一像を得、朝霧からノアキスの黄雲が出て来るのが特定できる(ほぼ $\omega=311^{\circ}\text{W}$)が、以下 $\omega=316^{\circ}\text{W}$, 321°W , 326°W , 335°W , 340°W , 345°W と撮っている。美國へ移ってDAd氏が $\omega=346^{\circ}\text{W}$ 、FMI氏が $348^{\circ}\text{W}(5:03\text{GMT})$ であるが未だ角度は浅く、JWn氏の $\omega=027^{\circ}\text{W}(7:45\text{GMT})$ になってソリス・ラクス領域の核を捉えた。筆者(Mn)はこの日がリックでの最後となったが、幸い好い天気で $\omega=354^{\circ}\text{W}$, 004°W , 014°W , 026°W , $041^{\circ}\text{W}(8:40\text{GMT})$ と観測出来た。ノアキス東への移動は軽いものである様だが、相当上空に浮遊していると思われ、全體が淡化して来ている。却ってその爲シヌス・サバエウスの西北部が矢鱈濃く見え、シヌス・サバエウスの他の部分は淡く、對照的にデウカリオニス・レギオが暗く見える。マルガリティフェル・シヌス南部も淡くなり、 $\omega=004^{\circ}\text{W}$ では南半球西端は相当明るく、 $\omega=014^{\circ}\text{W}$ ではソリス・ラクスのコ

アが現れた。発生後四日目であるが、コアは稍密度が落ちて最終段階となりこれで黄塵は相当上空へ撒き散らされたと思われる。特にソリス・ラクスの北半分が回復している様相であった。アルギユレ前後の黄雲は依然見えているが、この日は特にその南側の境界(マレ・オケアニドゥム位置?)が濃く太く見えている。黄雲の西への擴がりが氣になる處であるが、その後のアジア-オセアニアの観測に依れば、密度の濃いコアは見当たらない。アジア-オセアニアの観測は次の様になされている：眼視では $\omega=080^{\circ}\text{W}(\text{Nr}), 090^{\circ}\text{W}(\text{Nr}), 095^{\circ}\text{W}(\text{Mk}), 099^{\circ}\text{W}(\text{Nr}), 104^{\circ}\text{W}(\text{Mk}), 109^{\circ}\text{W}(\text{Nr}), 114^{\circ}\text{W}(\text{Mk}), 124^{\circ}\text{W}(\text{Mk}), 134^{\circ}\text{W}(\text{Mk})$ 。ccdでは $\omega=097^{\circ}\text{W}(\text{Is}), 101^{\circ}\text{W}(\text{Km}), 113^{\circ}\text{W}(\text{Km}, \text{Ak}), 117^{\circ}\text{W}(\text{CLa}), 122^{\circ}\text{W}(\text{MVI}), 127^{\circ}\text{W}(\text{RHf}), 136^{\circ}\text{W}(\text{CLa}), 139^{\circ}\text{W}(\text{CLa})$ 。最後の影像でもソリス・ラクスのコアは見えている。なお、リックの観測では、依然北極雲の状態は変化があつて面白く、この日にはデウテロニルスに沿って非常に明るいスジがあり、ニリアクス・ラクスマで伸びていた。

♂.....**Dust Variation on 25 Oct:** The related observations on 25 Oct ($\lambda=312^{\circ}\text{Ls}$) at the US side were given no more than by *CSr* at $\omega=003^{\circ}\text{W}, 020^{\circ}\text{W}$, and by WILLIAMSON (*TWs*) at $\omega=021^{\circ}\text{W}$ (7:55GMT), and so hard to judge, but it seems no new core were found. However there still remains a brighter dust around Argyre, and the dark markings look generally faded to some extent, and there may be found a dust float from Eos to Chryse. After crossing the vast Pacific Ocean, *MVI* made an image at $\omega=087^{\circ}\text{W}$ (12:25GMT), *Mo* at $\omega=107^{\circ}\text{W}, 116^{\circ}\text{W}, 127^{\circ}\text{W}, 137^{\circ}\text{W}$ and *CLa* at $\omega=119^{\circ}\text{W}$. The present writer (*Mn*) was still on board a plane at the usual 22h PDT (5h GMT) flying near over Hokkaido, and could not observe until 14:00 GMT at the Fukui City Observatory: There Takashi NAKAJIMA (*Nj*) already started to observe from 11:30GMT (at $\omega=073^{\circ}\text{W}$) and observed subsequently at $\omega=083^{\circ}\text{W}, 103^{\circ}\text{W}$. Then he welcomed *Mn*, and we continued to observe as follows: $\omega=110^{\circ}\text{W}(\text{Mn}), 117^{\circ}\text{W}(\text{Nj}), 124^{\circ}\text{W}(\text{Mn}), 132^{\circ}\text{W}(\text{Nj}), 137^{\circ}\text{W}(\text{Mn}), 142^{\circ}\text{W}(\text{Nj}), 152^{\circ}\text{W}(\text{Nj}), 156^{\circ}\text{W}(\text{Mn}), 161^{\circ}\text{W}(\text{Nj}), \omega=166^{\circ}\text{W}(\text{Mn}, 17:50\text{GMT})$. At the first stage we could caught the Solis L dust core. The seeing and transparency were poor, but we observed that the configuration of the Solis L area (the east-southern part made still a dust core) was similar to that on the preceding day. Tharsis was brighter near the evening terminator: It was uncertain about the Arsia white cloud, but we could not deny. *Mk* also made visually observations (after he saw off *Mn* at the Haneda Airport) at $\omega=095^{\circ}\text{W}, 105^{\circ}\text{W}$, and recorded the dust curved broad streak from Solis L to the direction of Argyre. *Nr* also observed from $\omega=071^{\circ}\text{W}$ to 100°W .

25Octの黄雲：この日($\lambda=312^{\circ}\text{Ls}$)の美國側の観測はCSr氏の $\omega=003^{\circ}\text{W}, 020^{\circ}\text{W}$ 、ウィリアムソン(TWs)氏の $\omega=021^{\circ}\text{W}$ (7:55GMT)だけであり、判断は難しいが、新しいコアは見当たらないものの、全體に淡化があり、エオスからクリュセに掛けて未だ黄雲が見られる。東方ではMVI氏が $\omega=087^{\circ}\text{W}$ (12:25GMT)、099°W、Mo氏が $\omega=107^{\circ}\text{W}, 116^{\circ}\text{W}, 127^{\circ}\text{W}, 137^{\circ}\text{W}$ と撮像、CLa氏が $\omega=119^{\circ}\text{W}$ で捉えている。筆者はPDTのお昼(24Oct)にサンノゼを發つたのであるが、いつもの観測開始の22hPDTには未だ北海道の沖を飛んでいて(ジェット機は夜明けラインに追っかけられながら逃げていて、未だ陽は高く14時JST)、成田・羽田経由(羽田ではMk氏と歓談)で小松に降り立ったのは20:45JSTであった。三國に寄っていた爲、足羽山に到着したのは22時半過ぎ、中島(Nj)氏の出迎えを受けて、私の最初の観測は14:00GMT $\omega=110^{\circ}\text{W}$ となった(Nj氏は既に11:30GMT $\omega=073^{\circ}\text{W}$ から開始、既に $\omega=083^{\circ}\text{W}, 103^{\circ}\text{W}$ と観測していた)。大方前方の黄雲は東に沈んでいたが、ソリス・ラクスのコアはまだ充分見られた。シーイングは好くないが、ソリス・ラクスの北半分が見える邊り前日と同じ様であった。透明度も悪く不定期になったが、その後 $\omega=117^{\circ}\text{W}(\text{Nj}), 124^{\circ}\text{W}(\text{Mn}), 132^{\circ}\text{W}(\text{Nj}), 137^{\circ}\text{W}(\text{Mn}), 142^{\circ}\text{W}(\text{Nj}), 152^{\circ}\text{W}(\text{Nj}), 156^{\circ}\text{W}(\text{Mn}), 161^{\circ}\text{W}(\text{Nj}), \omega=166^{\circ}\text{W}(\text{Mn}, 17:50\text{GMT})$ と追った。タルシスは夕端で明るくなり、アルシア雲は明白ではないが、否定も出来なかった。Mk氏は筆者を羽田で見送ってからの観測で $\omega=095^{\circ}\text{W}, 105^{\circ}\text{W}$ 、Nr氏は $\omega=071^{\circ}\text{W}\sim 100^{\circ}\text{W}$ 。

♂.....**Dust at Margaritifer S on 26, 27 Oct:** On 26 Oct ($\lambda=313^{\circ}\text{Ls}$), it was noticed generally two distinct variations: one was the further fading of Margaritifer S due to a dust covering, and the second was the fact that the Solis L core had been quite weakened. On 27 Oct ($\lambda=314^{\circ}\text{Ls}$), the distinction became wider, and Margaritifer

S became much fainter, and Solis L looked considerably recovered. On 26 Oct, *JWn* observed at $\omega=300^\circ\text{W}$, 312°W , 341°W , and 354°W : the latter two being precious. See the dust description of the area of Margaritifer S as well as the thick dust expansion around Argyre. Note also there has been lost a modulation around the western part of S Meridiani. Deucalionis R remains still rather shadowy. At the same angle $\omega=254^\circ\text{W}$ of *JWn*, *EGf* produced detailed images, and *CSr* also took images at $\omega=344^\circ\text{W}$, 347°W , 001°W . According to HERNANDEZ (*CHR*)'s visual observation at $\omega=304^\circ\text{W}$, the general colour of the southern dust appeared a pale yellow-mustard. The area of Solis L was observed in Asia-Oceania: *ASADA* (*As*) chased at $\omega=083^\circ\text{W}$, 093°W , 102°W , 112°W . They show that in comparison with the preceding active dusty area, the following area of Solis L and its west had been settled down. Claritas was usually light. *MVI* produced an image at $\omega=089^\circ\text{W}$, *SBd* at 104°W , *Hg* at $\omega=109^\circ\text{W}$. Solis L is not yet complete, and the east of the recovered Solis L look was not normal, and the area of nectar was still largely dark.

On 27 Oct ($\lambda=313^\circ\sim 314^\circ\text{Ls}$), *SKw* also tried at $\omega=294^\circ\text{W}$, 299°W , and in the US the following observations were made: $\omega=305^\circ\text{W}$ (*DAd*), 321°W (*DBt*), 328°W (*CSr*), 329°W (*FMI*), 330°W (*RCv*), 335°W (*CSr*), 336°W (*RCv*), 339°W (*DMr*), 340°W (*RCv*), 343°W (*RCv*), 345°W (*DMr*), 354°W (*CSr*), 019°W (*JWn*, 9:00GMT), where *DMr*=MOORE. *DMr* joined after one month absence, and made excellent images which clearly show the dust distributions; one broad stream is from Deucalionis R curved down to Margaritifer S, and the other is expanding from the high latitude area locating to the south of Noachis down to Argyre. The *nph* is also shot from the most attracting angles. The last shot by *JWn* is important because it shows the faded area of Margaritifer S near the CM. In Japan, belated by one hour, *Km* shot first at 9:56GMT ($\omega=033^\circ\text{W}$), and continued as follows: $\omega=038^\circ\text{W}$, 043°W , 062°W , 065°W , 069°W , 076°W . At Fukui, *Nj* and *Mn* started from 10:50GMT ($\omega=046^\circ\text{W}$) and chased until 19:20GMT ($\omega=170^\circ\text{W}$). At the first and second sessions, S Meridiani was caught dark near the terminator, while S Meridiani appeared mostly faded out. Visually, *Mk* also observed from $\omega=078^\circ\text{W}$ to 110°W , and checked the fading of Margaritifer S and the dust cloud near Argyre. By the ccd, *Um* took at $\omega=058^\circ\text{W}$, *Hg* at $\omega=069^\circ\text{W}$, *As* at $\omega=072^\circ\text{W}$, 081°W , 091°W , 101°W , *SBd* at $\omega=099^\circ\text{W}$, MIYAZAKI (*My*) at $\omega=100^\circ\text{W}$, *Mo* at $\omega=102^\circ\text{W}$, 109°W , 120°W , 130°W , *MVI* at $\omega=112^\circ\text{W}$, and *RHf* at $\omega=113^\circ\text{W}$. The images of *As* at $\omega=091^\circ\text{W}$, *SBd* at $\omega=099^\circ\text{W}$, and *My* at $\omega=100^\circ\text{W}$ show that Solis L has more recovered than the day before, but not yet fully and Thaumasia is also shadowy. The area of Phasis and Claritas is normal. *RHf*'s image is also excellent in showing that the region of M Sirenum and its west are also normal. Caralis Fons still dark visible. Visually also seen were Claritas, a light spot to the south of Solis L and the light area to the east-north of Phoenicis L. *My*'s image is also excellent, but he communicated his impression that the present dust affair brought out quite a low contrast to the markings.

26、27Octのマルガリティフェル・シヌス黄雲 : 26Oct($\lambda=313^\circ\text{Ls}$)には更に全體がダスティになったが、二つの大きな変化があった。一つはマルガリティフェル・シヌス中央の黄雲が強くなったこと、一方ソリス・ラクスのコアは弱くなって来たことである。27Oct($\lambda=314^\circ\text{Ls}$)にはこの格差が大きくなり、マルガリティフェル・シヌスは更に淡化し、ソリス・ラクスのコアは殆ど消失した様である。この周辺では偏東風が吹かない儘であった様である。26Octには*JWn*氏が $\omega=300^\circ\text{W}$ 、 312°W 、 341°W 、 354°W と観測をし、特に後者二点は重要である。アルギュレの邊りに黄雲の強い擴がりがあり、マルガリティフェル・シヌスの邊りの描寫にも注意。シヌス・メリディアニの邊りもその南と共にメリハリが無くなっている。南半球の印象としてヘルナンデス(*CSr*)氏の $\omega=304^\circ\text{W}$ の眼視観測では黄色い芥子色である。*JWn*氏と同じ $\omega=254^\circ\text{W}$ には*EGf*氏の良像があり、他に*CSr*氏が $\omega=344^\circ\text{W}$ 、 347°W 、 001°W の畫像がある。少し跳んでソリス・ラクス邊りは、浅田(*As*)氏が $\omega=083^\circ\text{W}$ 、 093°W 、 102°W 、 112°W と追った。先行するアルギュレ方面の明るさに比べて、ソリス・ラクスの邊りは落ち着いた。クラリタスの方は通常。この間、*VMI*氏は $\omega=089^\circ\text{W}$ 、*SBd*氏は 104°W 、*Hg*氏が $\omega=109^\circ\text{W}$ で撮っている。ソリス・ラクス暗部の東部は未だ完全でなく、ネクトルの邊りは大きく暗い。27Octには未だ*SKw*さんが $\omega=294^\circ\text{W}$ 、 299°W で撮り、また美國でも英文部の様に $\omega=305^\circ\text{W}\sim 019^\circ\text{W}$ まで観測が揃っている。久々のムーア(*DMr*)氏の $\omega=$

339°W、345°Wはたいへん良像で、ノアキスからマルガリティフェル・シヌスに掛けての描写は充分である。北極雲の角度も一番面白い處である。最も遅いJWn氏の $\omega=019^\circ\text{W}$ (9:00GMT)はマルガリティフェル・シヌスの淡化を正面で撮っており重要である。日本では、Km氏が一時間遅れの9:56GMT $\omega=033^\circ\text{W}$ で開始し、 $\omega=038^\circ\text{W}$ 、 043°W 、 062°W 、 065°W 、 069°W 、 076°W と追跡して良像を遺した。福井ではNj氏と筆者(Mn)が、10:50GMT $\omega=046^\circ\text{W}$ から開始し、19:20GMT $\omega=170^\circ\text{W}$ まで観測した。最初から、シヌス・メリディアニは夕端に見えるのに對し、マルガリティフェル・シヌスが淡化していることは明白であった。この淡化はコアによるものではなく、夜間に消えないものであろうと思う。眼視では他にMk氏が $\omega=078^\circ\text{W}$ から 110°W まで観測しており、前半でマルガリティフェル・シヌスの邊りとアルギュレ方面の黄雲を捉えている。岩崎(Iw)氏の $\omega=058^\circ\text{W}\sim 078^\circ\text{W}$ もあるが、アルギュレ方面の異常にも氣付いていない(23Oct~25Octの経験が無い所爲であろう)。ccdではUm氏が $\omega=058^\circ\text{W}$ 、Hg氏の $\omega=069^\circ\text{W}$ 、As氏が $\omega=072^\circ\text{W}$ 、 081°W 、 091°W 、 101°W 、SBd氏が $\omega=099^\circ\text{W}$ 、宮崎勲(My)氏が $\omega=100^\circ\text{W}$ 、Mo氏が $\omega=102^\circ\text{W}$ 、 109°W 、 120°W 、 130°W 、MVI氏が $\omega=112^\circ\text{W}$ 、RHf氏が $\omega=113^\circ\text{W}$ で撮像した。As氏の $\omega=091^\circ\text{W}$ 、SBd氏の $\omega=099^\circ\text{W}$ 、My氏の良像 $\omega=100^\circ\text{W}$ を見ると、ソリス・ラクスは前日より回復しているが、未だ充分ではなく、タウマジアも地としては暗く見える。但しくラリタスの明る味があることやパシスの状態など変化がない。RHf氏の良像ではマレ・シレナムの方にも異常がない。カラリス・フォンスが明確。眼視でもソリス・ラクス南の明点やクラリタス、ポエニキス・ラクスの北東等の明るい点が目につく。My氏は「黄雲の影響で、模様のコントラストが随分と落ちた感じがします」と印象を述べている。

♂.....**Dust Disturbance at Aram on 28 Oct:** On this day ($\lambda=314^\circ\text{Ls}$), there was observed an extraordinary quantum jump from Arm to the northern part of Margaritifer S. As we frequently stressed, it is important to catch and observe its initial status in the early morning, and this time JWn produced a precious image at $\omega=319^\circ\text{W}$ where the bright new burst is shot near the morning limb. The phase angle decreased to $\iota=9^\circ$. Later CSr took images at $\omega=329^\circ\text{W}$, 333°W , 350°W , 355°W . HST took and distributed an image taken on 28 Oct where the burst was clearly shown, but it was unfortunate it was not when the burst was located in the morning. This shows however the dirtiness of the southern hemisphere clearly due to the dust covering. In Japan Mk caught visually the burst at $\omega=057^\circ\text{W}$, and chased at $\omega=067^\circ\text{W}$, 076°W , and at $\omega=089^\circ\text{W}$, 098°W , 108°W he observed the area around Solis L. Including the distribution at Argyre and its neighbourhood, the configuration looked similar to that on 27 Oct. At Fukui Nj watched at $\omega=081^\circ\text{W}$, but seeing was poor. Hg took an image at $\omega=080^\circ\text{W}$ where the dusty Margaritifer S was shown near the terminator.

28Octのアラム擾乱: この日($\lambda=314^\circ\text{Ls}$)にはアラムからマルガリティフェル・シヌスの北部に掛けて黄塵の擾乱が起こり異常に明るくなった。朝方に発生する黄塵を捉えることは重要で、JWr氏の $\omega=319^\circ\text{W}$ の像では早朝のアラムに明るいバーストが寫っていて貴重である。その後、CSr氏が $\omega=329^\circ\text{W}$ 、 333°W 、 350°W 、 355°W と撮っている。この日はHSTがこの黄塵の像を撮したが、朝方でないのは残念である。ただ南半球が浮遊黄塵で汚れている様子が好く出ている。日本ではMk氏が $\omega=057^\circ\text{W}$ でバーストを捉えており、 $\omega=067^\circ\text{W}$ 、 076°W と追い、その後 $\omega=089^\circ\text{W}$ 、 098°W 、 108°W でソリス・ラクス邊りを観測している。アルギュレ黄塵も含めて前日に似ている。福井ではNj氏が $\omega=081^\circ\text{W}$ 等で観測している。Hg氏の $\omega=080^\circ\text{W}$ での像ではダスティなマルガリティフェル・シヌスが夕端である。

♂.....**29 Oct:** Since the area of S Margaritifer had been well smeared with the dust, the disturbance of the preceding day must have revived at night: Thus the core reappeared on 29 Oct, but somewhat jumped to the southward direction so that the area of Aram recovered. JWn took images at $\omega=315^\circ\text{W}$, and then followed images at $\omega=341^\circ\text{W}$ by EGf and CSr, 355°W by DMr, and 356°W (drawing) by BUNGE (RBg). Brangæna recovered, but from the area to the south of the western Deucalionis R to Margaritifer S was quite disturbed and bright. Oxia P which was under the dust the day before reappeared, but its south remained washed. The images by JWn, EGf, DMr show that the airborne dust look to have been thicker. Deucalionis R shadowy. DMr's colour composite shows a colour variation at Noachis to the south of Hellas. On the day, no ccd image at Asia-Oceania section. Just at Fukui,

Nj & *Mn* started to watch at $\omega=029^\circ\text{W}$, and recognised the status of Margaritifer S, but the air condition was so poor that they quitted observing after $\omega=062^\circ\text{W}$ (13:10GMT).

29Octの黄雲：既にマルガリティフェル・シヌス地域は黄雲まみれであるから、擾亂は夜間持續を経て再び現れたが、少しジャンプがあり、アラムの邊りは既に弱く再現した。JWn氏が矢張り早く、 $\omega=315^\circ\text{W}$ 、以後 $\omega=341^\circ\text{W}$ (EGf, CSr)、 355°W (DMr)、 356°W (RBg)と観測がある。ブランガエナは回復しているが、パンドラエ・フレトゥムの西端からマルガリティフェル・シヌスへの流れは強い。オクシア・パルスは回復しているが、その南は未だ消失している。JWn、EGf、DMr各氏の畫像ではエアボーンダストが相當濃くなっている様である。日本ではccd観測は無く、福井(Nj&Mn)でも $\omega=029^\circ\text{W}$ から開始し、マルガリティフェル・シヌスが消え去っている(シヌス・メリディアニは見える)ことは確認出来たが、雲が出て $\omega=062^\circ\text{W}$ (13:10GMT)迄であった。(Iw氏の観測には著しい誤謬がある)

♂.....**Rare Phenomena on 30 Oct:** On this day ($\lambda=315^\circ\text{Ls}$) there observed two interesting phenomena: One is, as is already shown on *DBt*'s image at $\omega=307^\circ\text{W}$, that S Meridiani appeared to be covered by dust in a queer way. Such a strange case of Meridiani S was once recorded, as far as we know, on 29 and 30 Oct 1956 (in South Africa during the 1956 great dust storm). This time the following observers obtained images of this rare case at $\omega=316^\circ\text{W}$ (CSr), 320°W (CSr), 324°W (JPh, FMI), 335°W (TPk), 338°W (TPk), 339°W (FMI), 340°W (RBe), 349°W (TPk, MRs), 359°W (FMI), 007°W (DMr, WSh), 018°W (DMr), 023°W (DMr), where TPk=Tim PARKER, RBe=Ron B and WSh=Bill SHEEHAN (WSh detected visually). Another interesting phenomenon was the one first noticed by *DMr*: On his images there appeared a local irregular patch at Noachis having a different tinge than the usual dusty colour. The place was nearly located around ($\Omega=340^\circ\text{W}$, $\Phi=30^\circ\text{S}$) maybe from the area of Scylla Scopulus and Chaybdis Scopulus to their south, and the tinge is of the wine-colour. The precursor was seen also on *DMr*'s images on the day before. This indefinite patch differently coloured was also shot by *TPk*. The area is dark in B, and so we can consider that both of the water vapour and the dust are rather absent. As to the faded Margaritifer S, *Km*'s images at $\omega=040^\circ\text{W}$, 049°W as well as *JUSTICE* (*MJs*)'s image at $\omega=063^\circ\text{W}$ could prove.

30Octの黄雲現象：この日($\lambda=315^\circ\text{Ls}$)には珍しい現象が二つ検出されている。一つはDBt氏の $\omega=307^\circ\text{W}$ の畫像に既に起こっているが、シヌス・メリディアニ自身が黄雲にまみれた。シヌス・メリディアニがこのような様相を示すのは筆者の知る限り1956年の29、30Oct以來で、形もソックリである。美國では $\omega=316^\circ\text{W}\sim 023^\circ\text{W}$ の観測がある(英文部参照)。もう一點はDMr氏が最初に注意したが、ノアキスの $\Omega=340^\circ\text{W}$ 邊り、スキュッラ・スコプルス・カリュブディス・スコプルス(スコプルスは急傾斜、ラテン名はオデュッセウスに出てくる磐)の邊りから南に掛けて、色違い(ワインカラー)の切片が寫っていることである。TPk氏の $\omega=338^\circ\text{W}$ 、 349°W とDMr氏の $\omega=007^\circ\text{W}$ 、 023°W に明確である。B光では暗く寫っているので、水蒸氣もダストも抜けているのであろう。マルガリティフェル・シヌスは依然淡化している。これは東洋に移ってKm氏の $\omega=040^\circ\text{W}$ 、 049°W 、ジャスティス(MJs)氏の $\omega=063^\circ\text{W}$ に明白である。

♂.....**Dust on 31 Oct ($\lambda=316^\circ\text{Ls}$):** Images by *KGr* at $\omega=302^\circ\text{W}$, 309°W suggest that S Meridiani a bit recovered. *FMI*'s image at $\omega=007^\circ\text{W}$ shows somewhat darkened S Meridiani and the still faded Margaritifer S. *Km*'s images at $\omega=032^\circ\text{W}$, 061°W , *MVl*'s series of images at $\omega=041^\circ\text{W}$, 050°W , 053°W , 059°W , *BAd*'s at $\omega=053^\circ\text{W}$, and *MJs*'s at $\omega=066^\circ\text{W}$ all show the dusty aspect of Margaritifer S. Oxia P is however quite present as well as S Meridiani on the first images of *Km* and *MVl*. At Fukui, *Mn* observed from $\omega=013^\circ\text{W}$ to $\omega=115^\circ\text{W}$: Meridiani S was seen but weaker than S Sabæus, and Margaritifer S looked quite faded and rather light. Oxia P was visible, and Niliacus L was darker than the area of Auroræ S. Agathodæmon was clearly seen. Ophir was bright, but no dust core around Solis L. Phœnicis L and Phasis were usual. *Nr* observed at $\omega=018^\circ\text{W}\sim 037^\circ\text{W}$, *Mk* at $\omega=021^\circ\text{W}\sim 060^\circ\text{W}$. As to the general expansion of the airborne dust, refer to the moderately processed image of *AFr* at $\omega=278^\circ\text{W}$.

31Oct($\lambda=316^\circ\text{Ls}$)の黄雲：KGr氏の $\omega=302^\circ\text{W}$ 、 309°W ではシヌス・メリディアニが回復している様に見える。FMI氏の $\omega=007^\circ\text{W}$ 、Km氏の $\omega=032^\circ\text{W}$ 、 061°W 、VMl氏の $\omega=041^\circ\text{W}$ 、 050°W 、 053°W 、 059°W 、BAd

氏の $\omega=053^\circ\text{W}$ 、MJs氏の $\omega=066^\circ\text{W}$ ではマルガリティフェル・シヌス上に未だ強い黄雲が存在する。オクシア・パルスは明確、MVI氏の良像ではシヌス・メリディアニは復活している。福井ではMnが $\omega=013^\circ\text{W}$ から $\omega=115^\circ\text{W}$ まで追跡した。シヌス・メリディアニは回復しているがシヌス・サバエウスより淡く、またマルガリティフェル・シヌス一帯は明らかに黄雲を被っている。ニリアクス・ラクスはアウロラエ・シヌス近邊より濃い。アガトダエモンは明確、オピルなどは明るい、ソリス・ラクス部位にはコアは見当たらない。ポエニキス・ラクスやパシスなどは普通であった。眼視では他にNr氏が $\omega=018^\circ\text{W}\sim037^\circ\text{W}$ 、Mk氏が $\omega=021^\circ\text{W}\sim060^\circ\text{W}$ と観測した。尚、浮遊黄塵がこの時期最後にどの様な状態に擴がっているかは、この日のAFr氏の $\omega=278^\circ\text{W}$ の畫像がモデレートで好く示していると思う。

♂.....**Trend of the Present Dust Cloud**: Caralis F has shown up quite dark this apparition (apparent in Aug-Sept), and in mid-Oct Mn also watched the spot together with an arc series of dots along Simois clearly by the use of the Lick grand refractor. During this fortnight period, this darkened Caralis F has been clearly shot on any image if the angle is inclusive, and so we should say the present dust has not been moved so much by the easterly despite the dust activity started from 21 Oct ($\lambda=310^\circ\text{Ls}$) at the Solis L area. We shall discuss in off-season the reason why the Solis L dust this time did not behave to the west contrary to the case in 1973 ($\lambda=300^\circ\text{Ls}$ ~).

今回の黄雲の東西への動向について: マレ・シレヌムの南のカラリス・フォンスは今年は濃い斑点となっており、早くから(八、九月頃から)好く見えていて、筆者も十月半ばにリックでこのフォンスから南へ弧を描く様に延びる連鎖も見たところであったが、今回の黄雲はこの邊り迄は然程の影響は齎さなかった様で、黄雲が出てからもこの時期一杯どの畫像にも濃く出ている。21Oct($\lambda=310^\circ\text{Ls}$)以降のソリス・ラクス領域の黄塵活動にも拘わらず、1973年の時($\lambda=300^\circ\text{Ls}$)の様に西へ大きく擴がらなかった要因についてはシーズンオフに別項で考察する。

B. Miscellaneous

♂.....**The NPH at the M Acidalium Area**: The region of M Acidalium is appropriate to watch the variation of the north polar hood (nph). Visually if the angles are chosen pertinently day by day, it is possible to chase the variation of the thickness referred to the darkness of M Acidalium. In the case of the ccd observations, we however need to pay much attention to the image processing of the white cloud in B. We don't here describe actual cases, but just point out the following a) and b) are interesting if compared: a) the set of images on 16 Oct ($\lambda=307^\circ\text{Ls}$) made by SKw at $\omega=008^\circ\text{W}$, by DTy at $\omega=009^\circ\text{W}$, by DPc at $\omega=010^\circ\text{W}$, by JAd at $\omega=024^\circ\text{W}$, b) the set of images on 23 Oct ($\lambda=310^\circ\text{Ls}$) made by CSr at $\omega=012^\circ\text{W}$, by EGf at $\omega=014^\circ\text{W}$, by RCv at $\omega=039^\circ\text{W}$. As a further west case, we may pick out KGr's on 20 Oct ($\lambda=309^\circ\text{Ls}$) at $\omega=046^\circ\text{W}$, 49°W , 057°W , 065°W . As a case of one-day difference, MWs's images on 21 Oct ($\lambda=310^\circ\text{Ls}$) at $\omega=357^\circ\text{W}$ and 22 Oct at $\omega=354^\circ\text{W}$ will give a good example.

マレ・アキダリウム域の北極雲: マレ・アキダリウムの邊りは北極雲の動きを見るのに面白い處だが、濃度はccdでは処理によって違うから注意する。肉眼では明らかに今日は弱いという様なことが判る。一般には不定形だが、パターンとして何處が明るく見え、何處が暗くなるかという點でほぼ回復もありそうである。例えば、16Oct($\lambda=307^\circ\text{Ls}$)のSKsさん $\omega=008^\circ\text{W}$ 、DTy氏 $\omega=009^\circ\text{W}$ 、DPc氏 $\omega=010^\circ\text{W}$ 、JAd氏 $\omega=024^\circ\text{W}$ のセットと23Oct($\lambda=310^\circ\text{Ls}$)のCSr氏 $\omega=012^\circ\text{W}$ 、EGf氏 $\omega=014^\circ\text{W}$ 、RCv氏 $\omega=039^\circ\text{W}$ のセットを比べると異同が面白い。更に西の様子はKGr氏の20Oct($\lambda=309^\circ\text{Ls}$) $\omega=046^\circ\text{W}\sim065^\circ\text{W}$ で鮮明である。一日の違いの例としてはMWs氏の21Oct($\lambda=310^\circ\text{Ls}$) $\omega=357^\circ\text{W}$ と22Oct $\omega=354^\circ\text{W}$ を比べると好い。

♂.....**The NPH at Utopia**: For example, compare with the set of images on 23 Oct ($\lambda=311^\circ\text{Ls}$) by CPI at $\omega=229^\circ\text{W}$, or by JSc at $\omega=263^\circ\text{W}$ with the set of images on 25 Oct ($\lambda=313^\circ\text{Ls}$) by CPI at $\omega=227^\circ\text{W}$, by JSc at $\omega=246^\circ\text{W}$, or by DPc at $\omega=255^\circ\text{W}$. DTy's nph on 25 Oct ($\lambda=313^\circ\text{Ls}$) at $\omega=240^\circ\text{W}$ looks different from his on 27 Oct ($\lambda=313^\circ\text{Ls}$) at $\omega=260^\circ\text{W}$, while the latter is also different than JAr's $\omega=259^\circ\text{W}$, and so B-image processing should be made more reliable before comparison.

ウトピア域の北極雲: 23Oct($\lambda=311^\circ\text{Ls}$)CPI氏の $\omega=229^\circ\text{W}$ 、JSc氏の $\omega=263^\circ\text{W}$ のセットと25Oct($\lambda=313^\circ\text{Ls}$)

CPI氏の $\omega=227^\circ\text{W}$ 、JSc氏の $\omega=246^\circ\text{W}$ 、DPc氏の $\omega=255^\circ\text{W}$ を代表的なものとして挙げる。DTy氏の25Oct($\lambda=313^\circ\text{Ls}$) $\omega=240^\circ\text{W}$ と27Oct($\lambda=313^\circ\text{Ls}$) $\omega=260^\circ\text{W}$ では極端に濃度が違って現れているが、後者はJAR氏の $\omega=259^\circ\text{W}$ とも違っているので、処理を揃えるようにしなければならない。

♂.....**M Serpentis**: The widened and darkened M Serpentis since the July 2003 dust disturbance has already changed its shape in 2005 (not to say reducing); We should say the M Serpentis images made on 17/18 Oct ($\lambda=307^\circ\text{Ls}$) by DPc at $\omega=323^\circ\text{W}$, on 18 Oct by DTy at $\omega=330^\circ\text{W}$, or on 22/23 Oct by DPc at $\omega=327^\circ\text{W}$ show the 2005 shape. However when the dust affected the Noachis region, M Serpentis showed a slightly different aspect as seen for instance if we refer to JPh's image on 30 Oct ($\lambda=315^\circ\text{Ls}$) at $\omega=324^\circ\text{W}$; the fact implying that the dust invaded further eastward, though we have not alluded to the further eastward extension in the above. It is interesting to judge whether it has been caused because of the airborne or of the fallout.

マレ・セルペンティス : 2003年七月黄雲で著しく變形濃化したマレ・セルペンティスは既に變化を見せているが、17/18Oct($\lambda=307^\circ\text{Ls}$)のDPc氏の $\omega=323^\circ\text{W}$ の像や18OctのDTy氏の $\omega=330^\circ\text{W}$ 、22/23OctのDPc氏の $\omega=327^\circ\text{W}$ での姿は今年のマレ・セルペンティスである。然し黄雲がノアキスに入ってから、上に述べていない領域でも黄雲の活動がある事はJPh氏の30Oct($\lambda=315^\circ\text{Ls}$) $\omega=324^\circ\text{W}$ の像に見られる様に、この領域の濃淡が違っていることで判る。浮遊黄塵に據るかfalloutに依るかは今後の解析になる。

♂.....**Evening Condensates**: The evening cloud at Libya preceding Syrtis Mj is well known, and this time it was caught by CPI near Paris on 17 Oct ($\lambda=308^\circ\text{Ls}$) at $\omega=352^\circ\text{W}$. Noteworthy is the B images at $\omega=005^\circ\text{W}$, 016°W where the condensates were shot quite inside the disk maybe near the area from the north of Edom to the south of the western part of Deucalionis R. PLw's ToUcam colour image made at Selsey on the day at $\omega=004^\circ\text{W}$ also shows the fact quite inside. About three hrs later on the day the area of Edom, coming to near the terminator, was whitish bright as seen on the US images by DBt at $\omega=038^\circ\text{W}$ and by DPk at $\omega=050^\circ\text{W}$. On 18 Oct ($\lambda=308^\circ\text{Ls}$), the Libya cloud was caught by DTy at $\omega=330^\circ\text{W}$, by DAr at $\omega=336^\circ\text{W}$, by JAd at $\omega=344^\circ\text{W}$, while it became the Edom white cloud on the images of DPk at $\omega=034^\circ\text{W}$. FMI's image on 19 Oct ($\lambda=309^\circ\text{Ls}$) at $\omega=039^\circ\text{W}$ also features it. On 20 Oct ($\lambda=309^\circ\text{Ls}$) it was shot more widely expanded along the terminator on the images of JWn at $\omega=042^\circ\text{W}$ and of KGr at $\omega=046^\circ\text{W}$ and others. We should say it is almost unseen on the image of Km at $\omega=033^\circ\text{W}$ on 27 Oct ($\lambda=314^\circ\text{Ls}$) when the dust was more active.

夕雲 : 季節によってリビュアの夕霧はよく知られていて、今回も17Oct($\lambda=308^\circ\text{Ls}$)のCPI氏の $\omega=352^\circ\text{W}$ にはよく捉えられている。特に注目するのは $\omega=005^\circ\text{W}$ 、 016°W のB像でこの雲が可成り中に入って、エドムの北からデウカリオニス・レギオ西端の南の方まで来ているらしいことが分かる。PLw氏の日 $\omega=004^\circ\text{W}$ のToUcamカラー像にもこれは窺える。実際、この日三時間程してDBt氏の $\omega=038^\circ\text{W}$ やDPk氏の $\omega=050^\circ\text{W}$ には夕端に来たエドム邊りに強く白く残っている。18Oct($\lambda=308^\circ\text{Ls}$)にはリビュア雲はDTy氏の $\omega=330^\circ\text{W}$ やDAr氏の $\omega=336^\circ\text{W}$ 、JAd氏の $\omega=344^\circ\text{W}$ には出ており、暫くしてのDPk氏の $\omega=034^\circ\text{W}$ には夕端のエドムで白くなっている。19Oct($\lambda=309^\circ\text{Ls}$)のFMI氏の $\omega=039^\circ\text{W}$ では鮮やかである。20Oct($\lambda=309^\circ\text{Ls}$)にはエドム中心に南北に擴がっていることがJWn氏の $\omega=042^\circ\text{W}$ やKGr氏の $\omega=046^\circ\text{W}$ 以下四像に好く示されている。黄雲との関係は分からないが、黄雲の擴がった27Oct($\lambda=314^\circ\text{Ls}$)のKm氏の $\omega=033^\circ\text{W}$ では殆ど見えていない。

♂.....**Arsia Cloud and Olympus Mons**: The Arsia evening cloud should exist during this season if the surface is normal. Before the expansion of the present dust, it was clearly shot for example on 19 Oct ($\lambda=309^\circ\text{Ls}$) by Mo at $\omega=171^\circ\text{W}$, by As at $\omega=175^\circ\text{W}$, by Hg at $\omega=179^\circ\text{W}$ and so on. Even after the onset, the cloud was evident on 21 Oct as seen from CLa's image. These cases were alluded in the above. It was considered that, as the high altitude dust increased, the Arsia cloud should have been reduced. However there was a lack of data to be obtained at Eurasia, and even on 29 Oct ($\lambda=315^\circ\text{Ls}$) CPI image still shows the west of $\omega=195^\circ\text{W}$. Just this image however, if compared with Sbd's image on 17 Oct ($\lambda=308^\circ\text{Ls}$) at $\omega=199^\circ\text{W}$, seems to prove the weakness of the con-

densate. On the other hand, **Olympus Mons** should originally be free from the orographic cloud in this season. This is so, but as the phase angle decreases, it will receive the opposition effect to shine reflecting the sunshine. The image by AMADORI (VAm) made on 29 Oct ($\lambda=315^\circ\text{Ls}$, $\tau=08^\circ$) at $\omega=188^\circ\text{W}$ proves first its shining though quite near the terminator. It was also evident on EHD's images on 31 Oct ($\lambda=316^\circ\text{Ls}$, $\tau=07^\circ$) at $\omega=187^\circ\text{W}\sim 194^\circ\text{W}$.

アルシア雲とオリュムプス・モンズ : アルシア・モンズの山岳雲は正常ならこの時期も存在し、実際、黄雲の擴がる以前は例えば19Oct($\lambda=309^\circ\text{Ls}$)のMo氏の $\omega=171^\circ\text{W}$ 、As氏の $\omega=175^\circ\text{W}$ 、Hg氏の $\omega=179^\circ\text{W}$ 等で鮮明である。黄雲の擴がって後の様子については、上でそれぞれ述べ、21OctのCLa氏の像まで明白であった。然し以後は弱くなっている様に思われる。ただ、歐羅巴で把握されたのは29Oct($\lambda=315^\circ\text{Ls}$)のCPI氏像でも $\omega=195^\circ\text{W}$ 以西である。ただこの像とSBd氏の17Oct($\lambda=308^\circ\text{Ls}$) $\omega=199^\circ\text{W}$ と比較すると、矢張り後半浮遊黄塵の影響で白雲は弱くなったのではないかと思われる。一方、オリュムプス・モンズはこの時期ロール雲には覆われない。然し位相角が一桁になって、衝効果が現れてくる頃で、先ずアマドリ(VAm)氏の29Oct($\lambda=315^\circ\text{Ls}$, $\tau=08^\circ$) $\omega=188^\circ\text{W}$ の夕没近くに輝きが見えている。31Oct($\lambda=316^\circ\text{Ls}$, $\tau=07^\circ$)のEHD氏の $\omega=187^\circ\text{W}\sim 194^\circ\text{W}$ にも明白である。角度にさへ恵まれれば朝から晩まで見える筈である。

♂.....In the next issue we shall review the observations made during the fortnight period from 1 November ($\lambda=316^\circ\text{Ls}$, $\delta=20.2''$) to 15 November 2005 ($\lambda=325^\circ\text{Ls}$, $\delta=19.2''$). Mars is at opposition on 7 Nov 2005 at 7:51 TDT.

便り Letters to the Editor

●.....Date: Tue, 25 Oct 2005 01:00:39 +1000
Subject: Mars 24th October UT

Here is an image of Mars taken about 45min ago... Slightly better seeing than yesterday's poor effort. Dust seems a little less obvious today, or this might just be because of the different seeing.. Best wishes

○.....Date: Wed, 26 Oct 2005 00:44:30 +1000
Subject: Mars 25th October UT

Attached is a composite of two Mars images taken earlier this evening in poor seeing conditions. Best wishes

○.....Date: Sat, 05 Nov 2005 14:08:45 +1100
Subject: Mars 4th November UT

Here is an image of Mars taken on the 4th November UT in fair seeing, but with some high cloud present.

○.....Date: Sun, 06 Nov 2005 14:19:31 +1100
Subject: Mars 5th November UT

Here is an image of Mars taken on November 5th with fair seeing which deteriorated soon after this image was taken. Best wishes

○.....Date: Sun, 06 Nov 2005 17:20:15 +1100
Subject: Mars 5th November UT

Seems that most people are enhancing albedo contrast significantly in images. This is the same image that was sent earlier with more contrast enhancement by gamma and level adjustment. To me it does not resemble the telescopic view. Any comments on this would be appreciated.

Maurice VALIMBERTI

(モリス・ヴァリムベールティ Mebourne 澳)

●.....Date: Mon, 24 Oct 2005 11:22:22 -0400
Subject: Re: dust images

A little late, but here are the color images of 10/19 and 10/21. Look forward to seeing the developments in this area from Japan observers - best regards,

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

●.....Date: Mon, 24 Oct 2005 11:52:24 -0500
Subject: 48 hour dust storm evolution

Hello everyone, Here is a pretty good comparison of the dust storm over a 48 hour period. It appears, to me anyway, to be growing in intensity and size. In the 10-24-05 image, if you notice, the bow shaped arcing band of dust over Solis L is a different color than the dense cloud over M Erythraeum and Argyre I. I know here on earth with a severe storm, when you get a bow shape like that over Solis L, it is a sign of strengthening and very high, power winds. **This is all pure speculation on my part**. And lastly, as I pointed out last night, notice the NPH in the 10-24 image. I haven't ever seen a NPH quite like that. Looks like a ring within a ring. All comments appreciated and anyone is welcome to use this image, just let me know if you do please.

<http://marswatch.amaonline.com/10-22-24-0548hourcomp.jpg>

○.....Date: Wed, 26 Oct 2005 02:38:30 -0500
Subject: DUST/Hellas Basin....Hello everyone

Just finished these images. Note the 2 dust bands stretching from the M Australe/Argyre I region to the border of the Hellas Basin. Based on these images, I believe activity -might- actually be starting in the basin. I'll let others smarter than myself comment. In my earlier images from this evening, I don't believe seeing/quality was good enough to see this, but these 2 images show good detail.

<http://marswatch.amaonline.com/10-26-050045.jpg>

<http://marswatch.amaonline.com/10-26-050140.jpg>

○.....Date: Thu, 27 Oct 2005 13:36:51 -0500
Subject: Re: Mars, Minor Dust in Chryse, Oct. 27

To be minor dust, it sure is moving quickly and obscuring dark albedo features. Not the transparent haze from a week ago that covered M Erythraeum and moved south towards Solis Lacus. Could fade out by tonight, or perhaps not. Members of the ALPO I have corresponded with believe it is a second storm/cloud, not associated with the first. I'd be interested in hearing Mr. Richard McKim's take on it.

○.....Date: Fri, 28 Oct 2005 10:01:45 -0500
Subject: Re: Mars Outbreak, Oct 27 and 28

I'm glad someone else was able to image that. Very remarkable. Based on the shape, it looks like its moving south

to north and those "extensions" are bizarre. I guess the thing is so bright, and because it was on the limb, my camera picked it up as white. I know its the brightest thing I have ever imaged on Mars. The forecast tonight here isn't looking good, but you never know. Anyone have an explanation for those extensions? Regards,

○·····Date: Fri, 28 Oct 2005 11:24:46 -0500

Subject: Re: Mars Oct 28, Large outbreak near Margaritifer Sinus

A bit more re-processing to my original image. If you look closely at the Blue channel you can see one, and likely a second, "extension" that Clay captured so well. I would of given my right arm for another hour of cloud free skies. Linked and attached.

<http://marswatch.amaonline.com/10-28-050030.jpg>

○·····Date: Fri, 28 Oct 2005 12:40:50 -0500

Subject: High Contrast Enlargement/Outline details Hello list,

I did a 400x enlargement and high contrast of the cloud and I realized that the shape of the cloud follows the outline of Sinus Meridiani, and then checked it against Clay's and Paul's now posted image (great one btw). Is Aram, where this cloud originates, a valley/depression? If so that would suggest its low to the surface I assume.

<http://marswatch.amaonline.com/10-28-050030.jpg>

○·····Date: Fri, 28 Oct 2005 12:48:20 -0500

Subject: Re: High Contrast Enlargement/Outline details

Just checked my reference material. There is indeed a gorge and gullies in Aram, with numerous fractures. Pretty interesting.

○·····Date: Fri, 28 Oct 2005 12:52:54 -0500

Subject: Re: High Contrast Enlargement/Outline details

Looking at the MGS image of this gorge, its very "dramatic" with dunes on the floor of it. Regards,

○·····Date: Fri, 28 Oct 2005 13:07:02 -0500

Subject: Origin of Cloud

Hello everyone, Based upon looking at several maps, I believe the point of origin of this cloud is Iau Chaos. It then spread north, following the floors and cliffs of the Ares Vallis and Simud Vallis, fitting their outline, making its way into Chryse and Cydonia Mensae. Regards,

○·····Date: Fri, 28 Oct 2005 13:57:30 -0500

Subject: Re: Origin of Cloud

Here is a link to a map, pdf file, that shows the area where the dust storm formed quite well, and the shape it took matches the topography quite well.

<http://ralphaeschliman.com/mars/mltmsm.pdf>

○·····Date: Sat, 29 Oct 2005 17:22:09 -0500

Subject: Re: [marsobservers] Mars October 29th

That is an amazing image Ed. Has to be one of the best earth based shots of a dust storm. The fine detail makes it look like a solar filament, or a flame. I wonder if that line of dust closest to Hellas is the front boundary of the winds pushing, or pulling, the dust. Regards,

○·····Date: Sun, 30 Oct 2005 22:05:50 -0600

Subject: Re: from CMO/OAA

Thank you for your e-mail and kind words Mr. Minami. I will certainly check my LCMs. Thank you for pointing that out to me. I have been clouded over the past 2 nights, including tonight, so hopefully in the next day or two I will have good seeing conditions and no clouds. Once again, thank you. Best wishes,

○·····Date: Sat, 5 Nov 2005 16:39:10 -0600

Subject: Re: Mars, november 4th

I have an image from August 24th, 2003 that shows Olympus Mons, or Nix Olympica if you will, as a white spot in all color channels. Regards,

Joel WARREN (ジョエル・ウォーレン TX 美)

●·····Date: Mon, 24 Oct 2005 20:23:29 +0200

Subject: Mars with dust clouds in the morning

bizzy weekend so here a late 21 oktober image, look particalarly the dust clouds on the morning side, this was the first direct sighting of a dustcloud for me, at first glance seeing looked fine outside back in a warm room rather fair at most best Jan

<http://home.tiscali.nl/planetadelaar/mars051021.jpg>

○·····Date: Wed, 26 Oct 2005 14:24:37 +0200

Subject: mars 16 okt dust in Nilokeras

Hi, Here a reprocessed Mars of the 16th of Mars, didn't had time the past week to look over, note the bright streak in blue, prob. the development of the Nilokeras dust Chris mentioned, regretly I haven't a later capture that night. best

○·····Date: Sun, 30 Oct 2005 21:18:28 +0100

Subject: Mars 05 10 27

Here an observation of the 27th october, nothing special on this side, conditions were fluctuating from fair to good in 1 hour time also transparency was suffering sometime with high clouds/mist best to all Jan suffering also from some Mars-lag lately

<http://home.tiscali.nl/planetadelaar/mars051027.jpg>

○·····Date: Thu, 3 Nov 2005 15:59:15 +0100

Subject: Mars 05 11 02

Hi all, Here a capture of novembre 2 the dull side of Mars, transparency was very poor though seeing with some moments good, The SPC is almost totally gone from this side. A slight haze still exist on the limb and the SPC, this might be a last image for a while, ToUcam fell quiet after firmware reprogram

<http://home.tiscali.nl/planetadelaar/mars051102.jpg>

Jan ADELAAR (ヤン・アデアール Arnhem 荷蘭)

●·····Date: Mon, 24 Oct 2005 21:29:30 +0200

Subject: Mars images 2005

Dear Richard, Dan, Masatsugu and Masami, Hope you are all well. Sending you the address to the web page where I place my Mars images from the current apparition. Please let me know if you would download any interesting images this way or if you would like them received by e-mail.

<http://www.astro.uu.se/~johwar/Mars2005/index.html>

Most images have been obtained with the 36 cm f/15 OG at the old observatory in Uppsala, which has an achromatic objective and unfortunately gives a somewhat unnatural color tinge with the ToUcam. ····All the best,

Johan WARELL (ヨハン・ガアレツル Uppsala 瑞典)

●·····Date: Wed, 26 Oct 2005 17:30:58 +0900

Subject: Re: 10月24日

お疲れ様でした。リックはいかがでしたか？

>いま、頭がぼやけていて考えられないのですが、次の点を考えて教えてください

>い。2003年Decの黄雲は西から東へ発展したのですが、1973年のソリス・ラクス

>黄雲は西へ延びたように思います。これは前者が低空、後者は高空へ昇った為

>ではないかと考えるのですが、如何でしょうか。この時期($\lambda=300^\circ\text{Ls}$)の風向

>きを低空と高空に分けて考えてみてくれませんか。コリオリ力も入れて。

300°Lsで夏型の夏極-冬極の大循環が起きているとします。南極では上昇気流北極では下降気流です。南極の高空では気圧が高くなりますので、気圧傾度力につりあうコリオリ力をもった風は西に向かって吹きます。低空では気圧傾度が逆になりますので、東向きです。南さんのおっしゃる通りです。

春秋型の赤道-極の大循環の場合は逆転します。

300°Lsではどちらの大循環でしょうか？

S&T誌の11月号のシーハン氏の記事を読みました。

どこが問題になったのですか？

○·····Date: Wed, 26 Oct 2005 19:41:54 +0900

Subject: [Fwd: Re: 昨夜の火星です。]

戸畑商業の梅林さんから以下のようなメールをもらいましたので転送いたします。

Subject: Re: 昨夜の火星です。

Date: Wed, 26 Oct 2005 18:07:22 +0900

浅田先生 こんにちは。確実にサイズ修正を入れたファイルを再送します。これで大丈夫だと思います。梅林@戸畑商業高校

○.....**Date: Sat, 29 Oct 2005 23:35:03 +0900**

Subject: 10月26日、27日の画像

十月26日と27日の画像をお送りいたします。両日も翌日の予定のため、前夜半のみの撮像です。撮影時刻は、26日が12時45分から14時45分、27日が12時35分から14時35分です。

○.....**Date: Tue, 08 Nov 2005 09:00:39 +0900**

Subject: LU075のインストール

ようやくLU075のインストールが終了し、撮影できるようになりました。自分の記憶を整理する意味で、インストールの過程を文書に見ました。ご笑覧いただければ幸いです。

浅田 正 (T ASADA 宗像 Fukuoka)

●.....**Date: Tue, 25 Oct 2005 11:13:39 +0900 (JST)**

Subject: dust storm of mars 24 Oct. 2005

セブからもやっと黄雲画像が得られました。知り合いの東側の部屋に一時移動しました。ソリスラクスの南に明るく見えています。2001年の黄雲は沖縄で見た事を思う出されます。

○.....**Date: Sun, 30 Oct 2005 08:25:05 +0900**

Subject: 帰国しました。

おはようございます。10月28日、一時帰国し、烏山に戻っています。日本はもう少し寒いかなど思っていました。寒さはさほど感じられません。天候が悪く、未だ此方では火星が見られませんが、今夜から見えるかなと期待をしています。11月6日にはセブに戻ります。烏山町は10月1日から隣町と合併し、「栃木県那須烏山市中央2-1-6 郵便番号は321-0621」が新しい住所になりました。

○.....**Date: Wed, 2 Nov 2005 13:55:27 +0900**

Subject: 火星画像 A KM051101

昨日の火星画像を添付します。気流が悪く、2時以降は霧が出てしまい、撮像が出来ませんでした。セブに比べ確かに気流は悪いですね。火星が踊った状態での撮像は久々に冷却CCDを使用しました。流星に情報量が多い。ノアキスの付近の棍棒状の明部は新しい黄雲でしょうか？

○.....**Date: Sat, 5 Nov 2005 17:37:49 +0900**

Subject: Re: 黄雲

こんばんわ。今夜は日本での最後の観測となります。十一月1日以降の画像が画像処理が終わっていません。セブで処理します。

○.....**Date: Wed, 9 Nov 2005 16:38:56 +0900 (JST)**

Subject: Mars 051108

11月6日にセブ島に戻ってきました。日本には九日間いて、その間火星を32cm反射(自宅)で見えていました。気流が安定せず黄雲もおぼろげ状態での撮像でした。セブ島では日本とは違い良い条件で火星の観測が出来ます。

阿久津 富夫 (Tomio AKUTSU セブ The Philippines)

●.....**Date: Tue, 25 Oct 2005 06:49:05 +0200**

Subject: mars from 24.10.05

here my Marspictures from 24.10.05. It was a good night with average. Seeing and good Transparency. Tonight it was cloudy, so I could not take any picture...best wishes

○.....**Date: Mon, 31 Oct 2005 16:22:52 +0100**

Subject: Mars from 31.10.05

I am back from the 5th CCD-Workshop at Carl-Zeiss Planetarium in Stuttgart (27/28/29.10.05). I was busy with organizing the Workshop and 2 own reports...

Now I can observe Mars again from my "balcony observatory". Seeing was poor (Storm "Wilma" is coming), I could not see any detail/clouds over Olympus Mons. And I also did not see the South Pole Icecap...

Here are my pictures... Pictures from 27.10.05 and 28.10.05 will follow soon... Best wishes

○.....**Date: Tue, 01 Nov 2005 05:25:50 +0100**

Subject: Mars from 27.10.05

here my marspictures from 27 October 2005, nothing unusual. Morning Limb was not bright, the south icecap was very small, hardly to see and NPH was not very blue...

○.....**Date: Tue, 01 Nov 2005 08:11:52 +0100**

Subject: Re: Mars from 27.10.05

Dear Masatsugu, I try my best, but I cannot observe through clouds... I can observe Mars in south and west direction, eastern direction is not possible.

At the end of this week, Tharsis is reachable for me...

○.....**Date: Tue, 01 Nov 2005 21:49:28 +0100**

Subject: mars from 28.10.2005

here my marspictures from 28 October 2005. Sorry for the delay, I was busy last week and found today the time to process them. They show normal activity between LCM 246 and 281 degrees, morning- and eveninglimb are normally illuminated, the southpole icecap is too small to see and the blue NPH is smaller than weeks before...best wishes

○.....**Date: Sun, 06 Nov 2005 21:19:14 +0100**

Subject: mars from 6. November 2005

here my marspictures from tonight. It was the first night without rain, the Seeing was under average and I had to take these pictures between clouds or through cirrusclouds. So they are not really sharp and show less details. But I saw a bright area over Tharsis and westwards of Olympus Mons.

○.....**Date: Mon, 07 Nov 2005 16:45:47 +0100**

Subject: Mars from 6./7. November 2005

here my Mars from tonight. It was excellent Seeing, good Transparency and so I took a lot of pictures between 22:00 and 01:00 GMT. It was the first time, that I saw all 3 huge volcanos at Tharsis and the bright Olympus Mons. I believe, these are my best pictures, I ever took. I cannot imagine, to see more with 6". best wishes

○.....**Date: Wed, 09 Nov 2005 06:03:08 +0100**

Subject: Mars from 7/8. November 2005

here my Marspictures from 7/8. Nov. Icy Temperature (0° Celsius), but great Seeing! For 5 hours I saw Olympus Mons moving over Marssurface, a very small Ice cap over south pole and a thin NPH. Both limbs are bright. Best

Silvia KOWOLLIK (シルヴィア・カワリク Ludwigsburg 徳)

●.....**Date: Tue, 25 Oct 2005 19:52:28 +0900**

Subject: Mars observation - 2005/10/24 14:32 UT

CMOさま、24日のダストストームの画像を送らせていただきます。宜しく願いいたします。

○.....**Date: Wed, 9 Nov 2005 21:11:12 +0900**

Subject: Poor jet stream image...Mars observation - 2005/11/07 14:57 UT

Dear CMO, A very poor image, taken in the jet stream: Very strong jet stream pattern and poor seeing continues here.... Seeing=2/10, Transparency=3-4/6. Clouds on the morning limb and into southern hemisphere. Best regards,

ロバート・ヘフナー (Rob HEFFNER 名古屋 Aichi)

●.....**Date: Tue, 25 Oct 2005 11:21:35 -0500**

Subject: Two Regions of Mars Dust

The yellow dust on Mars become less localized and there appear to be two major areas of dust activity as seen from the "north America" side of the planet. Images were obtained in horribly turbulent rapidly cooling air, but the bright areas of dust were very scintillating visually and thus deemed worthy of at least capturing these two shots, slightly more than one hour apart.

○·····Date: Sat, 29 Oct 2005 04:54:47 -0500
Subject: Mars Dust Outbreak Dispersing, Oct. 29

Showing a somewhat weakening yellow dust disturbance that was prominent between S Meridiani and Margaritifer S. High contrast inset image (lower right) demonstrates the true nature of the bright core cloud. Image in moments of very good seeing. Note the very bright blue clouds within the northern polar regions as well as the odd diagonal darkening wave that persists.

○·····Date: Sat, 29 Oct 2005 05:11:13 -0500
Subject: 3-day Comparison of Dust Event, Oct 27, 28, 29

Composite of three dates centered at near Martian Longitude 350°, demonstrating the pre-, maximum-, and current distribution and outbreak of the remarkable dust event of Oct 28. Dates are Oct. 27, 28, and 29; from the latter image note that the intensity and concentration of this feature has subsided and distribution of the dust appears to be commencing, leading it seems to less density and concentration than during the Oct. 28 sudden intensification of this area.

○·····Date: Sun, 30 Oct 2005 09:29:57 -0600
Subject: ASO Mars, Oct. 30

Clouds rolled in before "the view" rotated into good position this morning, but some evidence of the Sinus Meridiani event is evident on the limb. Poor and variable pre-frontal seeing conditions persisted;

○·····Date: Thu, 3 Nov 2005 09:55:23 -0600
Subject: Mars and "Hot Spot" in Aeria?

Note the "Hot Spot" in Aeria, this being seen visually as well....comments welcome. This was a very intense illumination that actually created much difficulty in obtaining a reasonably-balanced image (very poor seeing); however we watched this for about a 3-hour period.

○·····Date: Thu, 3 Nov 2005 20:04:22 -0600
Subject: Dust Storm Compared to Hubble.

Attached is an image compilation that you will find interesting; it is our (ASO) image from Oct. 28 posed with that of HST taken at the same time....remarkable.

○·····Date: Tue, 8 Nov 2005 16:49:59 -0600
Subject: Re: Mars 6/7th Nov 05

Outstanding images David... I am still very interested in the nature of the brightening of Olympus Mons; this is not opposition affect brightening and appears way too symmetrical to be attributed to clouds, too large to attribute to frost. I am wondering, based on the images you have provided in the individual bandwidths if this might be the result of dust deposits.... (??)

Clay SHERROD (クレイ・シェットロ ASO, AK 美)

●·····Date: Tue, 25 Oct 2005 12:27:31 -0400
Subject: Images for the 21st and 22nd

Hi, here are 2 images one for the 21st in 5/10 seeing. I used a True Tech filter set for both images. The image for the 21st was taken 3:51 UT (358.6) and the one for the 22nd was taken 4:18 UT (CM 356.4). best regards

Mike WIRTHS (マイク・ワース Ontario 加)

●·····Date: Tue, 25 Oct 2005 21:59:37 +0100
Subject: Mars 23 October

A series of images of the "bat clinging to the ball" view of Mars. The bright cloud at the S following limb seems to stay stationary as the planet rotates, so would appear to be a

localised version of the dawn haze.

○·····Date: Wed, 26 Oct 2005 21:45:10 +0100
Subject: Mars 25 October comparing Toucam and ATK

Windy and unstable conditions last night prompted me to reduce the f ratio to 30 and to experiment with comparing the response under these conditions of the Toucam Pro and the ATK IHS II using exactly the same filters and processing method. The result, maybe surprisingly, is that the Toucam produced a composite LRGB image as sharp, or sharper, than the ATK, though a bit less smooth. Of course, one cannot guarantee that seeing conditions hadn't changed between the two.

Sadly, we are not seeing any dust storms on the side of Mars we are seeing from Europe in the evenings currently, but observers on the other side of the world are seeing major activity. As Christophe Pellier mentioned, the dawn haze seems to have faded away as well.

○·····Date: Thu, 27 Oct 2005 23:00:03 +0100
Subject: Mars 26-27 Oct

Here is Mars from London about 00:00 UT October 27.

These were taken with the 3-filtered Toucam under poor seeing conditions. I include them both as a JPG and a GIF animation. Best,

○·····Date: Fri, 28 Oct 2005 15:00:41 +0100
Subject: Re: Mars 27 October (Richard Bosman)

Very nice, one of the best I have seen this apparition. Your image picks up fine topographic detail through shadows near the terminator in the S hemisphere, definitely Elysium Montes and Albor Tholus (in line with the 2 "prongs" of Gomer) and maybe other detail.

○·····Date: Fri, 4 Nov 2005 18:32:38 -0000
Subject: Mars Nov 04

The first clear night for at least a week in London left me contending with very 'flexible' seeing and high winds.

The result seems to be this bright ringing effect on the inner periphery which I believe to be artifactual - I wonder if others have had similar experiences? It's a bit different to the usual bright-dark-bright edge ringing.

No evidence at all of S polar cap and N polar hood very diminished from 2 weeks ago. Taken with the colour-filtered Toucam in black and white mode.

○·····Date: Sat, 5 Nov 2005 20:08:56 -0000
Subject: Mars Evening of Nov 24

Here are some images taken in very poor seeing from London. I blame fireworks in large part for the conditions.

They are presented both as a JPEG and an animated GIF.

The most interesting features are the bright clouds present over the Olympus Mons, Arsia Mons and Ascraeus Mons volcanoes as they approach Martian evening. They are almost equally bright in red, green and blue. The N polar hood on the other hand (at bottom) is intensely blue.

I am sending these to a few more people than usual in order to publicise "The Sky at Night" programme on BBC1 TV this Sunday (tomorrow) at 11.50 pm, which will be about Mars and feature some of my images, along with some by other observers on this list, and an interview with Richard McKim, director of the BAA Mars section.

Please avoid 'reply all' in order to avoid creating a list not entirely consisting of Mars fanatics. Yours,

○·····Date: Wed, 9 Nov 2005 00:07:43 -0000
Subject: Mars Nov 7

Here is a set from Nov 07, a night of fairly good seeing in London. It is clear why the old telescopic name of Olympus Mons was Nix Olympica, the "Snows of Olympus". All observers have noted this extraordinary brightness. In addition to this cloud, apparent even in the raw videos,

there are white clouds evident over the Tharsis volcanoes (retreating over the preceeding limb) and over Elysiun Mons (coming into view from the following limb in the N hemisphere). Yours,

David ARDITTI (テウァイト・アーティ Edgware 英)

●.....Date: Wed, 26 Oct 2005 11:22:53 +0100
Subject: Mars 22nd Oct

Hi Guys, Here is a set of Mars from the 22nd
Taken under arduous portable conditions with nasty dew en stuff and a buffeting breeze, with wicked temperatures in the low teens (C). C11 EQ5 F60 Lumenera 075 RGB (in the foreground). Location Sir Patrick Moore's Grounds.

The outdoor pic shows Damian (sitting) and Bruce Kingsley on our pitch. Best wishes

○.....Date: Thu, 27 Oct 2005 19:07:42 +0100
Subject: Mars 26Oct

Hi Guys, Here is a set of Mars from the 26th.
I have adjusted my monitor settings, any comments on the brightness received would be helpful.

C11f55 Lumenera 075.. Filters RED IR742 Astronomik, also used as L. Blue Trutek type 2, Green Trutek type 2.
Seeing jittery but of stable form, very Registackable.

○.....Date: Fri, 28 Oct 2005 14:39:37 +0100
Subject: Mars on the 28th

Hi Guys, Here is a set from the 28th Oct. The north polar hood is looking a little sad in this one. Quite unlike its spectacular appearance from here on the 16th. Maybe we will have a rust storm to report sometime, if we're lucky.

○.....Date: Fri, 28 Oct 2005 23:12:22 +0100
Subject: Mars 28th Oct UK

Here is a set from this morning the 28th Oct. The blue is showing a bit more activity than yesterday. Seeing was the usual jet stream jitter but quite workable. Best wishes

○.....Date: Tue, 1 Nov 2005 08:05:28 -0000
Subject: Re: Happy Halloween

Hi Don (PARKER), Thanks for even more inspiration, that's the spirit. We had a good Halloween thanks but the British sized pumpkin is somewhat deflated now as the candle cooked it from within. I expect you know about cooking on candles too Don.

Good luck with the recovery program. Best wishes

○.....Date: Sat, 5 Nov 2005 23:06:30 -0000
Subject: Mars 4th Nov

Here is a Mars set from yesterday am. A vestigial south polar cap is just visible. Seeing was very poor up until just before transit, when it improved to just poor. Best wishes

○.....Date: Tue, 8 Nov 2005 22:38:59 -0000
Subject: Mars 6/7th Nov 05

Hi Guys, Here are three sets of images from the 6/7th Nov
Seeing was jittery but of good form with Mars high around Meridian. Plenty of interesting cloud detail along with what I would guess to be opposition albedo phenomena.

Dave TYLER (テウァイト・タイラー Bkh 英)

●.....Date: Wed, 26 Oct 2005 23:38:24 +0900
Subject: 火星画像 24 Oct. 石橋

十月24日の画像です。カラーは、21h30m(JST)、12h30m(UT)、B光は22h01m(JST)、13h01m(UT)頃です。かなりいい加減な画像処理なので、見にくいかと思いますが、ご了承ください。

石橋 力 (Tsutomu ISHIBASHI 相模原 Kanagawa)

●.....Date: Wed, 26 Oct 2005 20:19:14 +0200
Subject: Mars drawings

Dear mr. Murakami, dear Masatsugu, Recently I have tried to send you some Mars drawings a couple of times, but it

seems like the mail gets too big - it bounces back every time. So now I'll try to send the drawings (6 in all) one by one, in separate mails. Here is, I hope, the first one.

○.....Date: Sun, 30 Oct 2005 11:56:57 +0100

Subject: RE: RE:Mars drawings

Dear Masatsugu, Thank you very much for your response.
..... I never imagined that anything more than the top left drawing would appear in the Gallery. The rest could just be for your own files, to print out or whatever, when a closer study of the data was needed. I don't want to present you with difficulties that could be avoided. It was just that we bought this new printer which is also able to scan things, and then I assumed it might be easier for you to receive my stuff this way. It felt kind of silly to send just the drawings electronically and then have to send the whole thing by normal mail in paper form too. But I assure you that I have no particular wish to see my primitive little drawings next to all these fantastic almost Hubble-like images that more and more people seem to be able to produce these days. It is quite intimidating for an old dinosaur like me. I see what you mean, concerning the notes, but again, there hasn't been much to write notes about yet, as I have my usual luck with the dust: when I'm observing, the dust is ALWAYS on the opposite side of Mars! - Of course, there has to be a date and time on the drawings, and CM, and telescope data, but no more than that. As I am a complete idiot with computers, I'm not sure I can figure out how to put this on the drawing before sending it! Given this, please just tell me, Masatsugu, if it would be better/easier for you to just receive my drawings by mail in the old paper version as before. My drawings really aren't worth wasting sparse kilobytes on; I just wasn't aware of the fact that they were sparse. Lastly, I do hope that you are well, and that you had a pleasant time in the U.S. Here, everything is pretty much the same: my back is killing me. Wayne is VERY busy in his job as a professor of electronic music (so busy in fact, that I hate to have to ask for his help in scanning my Mars drawings!). Mira, 11 years now, started taking singing lessons in addition to piano and swimming lessons (she has a wonderful voice). And Gabriel got his bachelor's degree in computer science this summer (with top grades), but he is of course continuing his studies. All the best wishes,

○.....Date: Thu, 03 Nov 2005 09:05:38 +0100
Emne: Drawings in the mail

Dear Masatsugu, Just a short note to inform you that my observation drawings from October 29 and 30 are on their way to your address in Mikuni by ordinary mail. I still am not sure about your e-mail address: right now I'm writing to vzv03210@nifty.com. But there seems to be another one, slightly different: VZV03210@nifty.ne.jp, which is the one that is registered as the sender when I receive mails from you. I am writing to nifty.com right now, but what is it about the other one? Best regards,

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

●.....Date: Wed, 26 Oct 2005 13:24:23 -0500 (CDT)
Subject: Mars October 26th

Here are images of Mars taken October 26th 2005.

<http://www.ghg.net/egrafton/mo-26-05.jpg>

C14 at f/39,taken with a ST402 CCD. Seeing 7/10, Transp. 8/10, Temp 53.6F,Relative Humidity 63%.

○.....Date: Sat, 29 Oct 2005 13:18:30 -0500 (CDT)
Subject: Mars October 29th

Here are images of Mars taken October 29th 2005

<http://www.ghg.net/egrafton/mo-29-05.jpg>

C14 at f/39,taken with a ST402 CCD. Seeing 4/10, Transp.

8/10, Temp 53.8F, Relative Humidity 63%.

○·····Date: Wed, 2 Nov 2005 10:46:10 -0600 (CST)
Subject: Mars November 2nd

Here are images of Mars taken November 2nd 2005

<http://www.ghg.net/egrafton/mn-02-05.jpg>

C14 at f/39, taken with a ST402 CCD. Seeing 6/10, Transp. 8/10, Temp 53.0F, Relative Humidity 62%.

Ed GRAFTON (エド・グラフトン Houston TX 美)

●·····Date: Wed, 26 Oct 2005 21:28:31 +0200

Subject: Mars, october 23-24th

Hi all, here are my latest images, with a Lumenera that works much better with the latest StreamPix update.

<http://www.astrosurf.org/pellier/M051023-CPE>

<http://www.astrosurf.org/pellier/M051024-CPE>

The images look overcontrasted to me and I'd better try a lighter processing (although it varies greatly with the screen). This hemisphere was free of dust at the time (except that the storm is visible at the limb of the last images). It looks white clouds are much less visible than one month ago, above all I don't see the evening mist anymore. The NPH looks normal. Images shot at 15 fps in IR, R, G and 7,5 fps in B and violet. Best wishes

○·····Date: Fri, 28 Oct 2005 19:51:45 +0200

Subject: Mars, october 25th

Hi all, more images taken under fair conditions. Still no dust in that hemisphere. As Paolo told me back in 2003, "dust loves the U.S." and this looks true again !

<http://www.astrosurf.org/pellier/M051025-CPE>

I made further tests yesterday evening with my F/69 setting and I confirm that with the latest StreamPix update the Lumenera looks to give raws twice more brighter than before..

By the way the new dust outbreak near s.m. is superb !... now that the region is out of view from Europe... I propose a new Murphy law: *if a martian region is not visible from Europe, then it will get dusty.*

○·····Date: Sun, 30 Oct 2005 02:22:02 +0200

Subject: Mars, october 27th

Very poor seeing, no dust. The Lumenera worked at 30 fps thanks to the short focal length.

<http://www.astrosurf.org/pellier/M051027-CPE>

○·····Date: Sun, 30 Oct 2005 23:01:44 +0100

Subject: Mars, october 29th

seeing was still poor yesterday but the images turned out to be much better than expected (although still fair).

<http://www.astrosurf.org/pellier/M051029-CPE>

I wonder if the yellow/green hue of the limb is due to airborn dust or just a kind of artefact... more data needed.

○·····Date: Tue, 01 Nov 2005 15:37:48 +0100

Subject: Re: Mars, october 29th (R Bosman)

Hi Richard, ok for the bright white clouds on the morning side of my image, but what about the yellow limb around the whole disk, not only the morning limb ?? I'm not saying that it's true but, the dust activity has been so important recently that there must be an obscuration going on (like in 2003). But it's going to be difficult to reproduce with CCD

○·····Date: Sat, 05 Nov 2005 20:43:41 +0100

Subject: Mars, november 4th

Hi all, finally some fair seeing last night -

<http://www.astrosurf.org/pellier/M051104a-CPE>
(visible wavelenghts)

<http://www.astrosurf.org/pellier/M051104b-CPE>
(IR and violet images)

I'm still wondering wether the color images show a dusty haze near terminator/limb or not. But the most interesting question I think is, is there a cloud over Olympus or not ? Damian's latest images disagree with the idea it seems,

while mine pretend the contrary... Olympus is bright in blue and violet, and in RGB is white, not only "bright". Let's wait for more data. Another remark is about visibility of surface markings in blue : the reddish area such as Vahalla are no longer dark in B. Several weeks from opposition, they were very dark, while the usual grey marias were almost or totally unseen. The albedo of surface markings in blue light has a strange behavior which doesn't only depend on atmospheric transparency but also on geometry, as seen from Earth. Quite interesting and curious... Best wishes

○·····Date: Sat, 05 Nov 2005 22:06:57 +0100

Subject: Re: Mars, november 4th (D PEACH)

By the way, from a seasonal point of view, the Olympus cloud isn't supposed to shine again before ~Ls 345 if I believe professional data... Now it's 318°Ls and it could be too early. I'll try to get an UV image tonight to bring further info... Best

○·····Date: Wed, 09 Nov 2005 07:58:51 +0100

Subject: Mars, november 5-6th

Some results under good seeing which are interesting -

<http://www.astrosurf.org/pellier/M051105-CPE>

<http://www.astrosurf.org/pellier/M051106-CPE>

First I bring your attention on the nov. 6th RGB image which might prove the existence of a yellow dust haze over the whole preceding (west) hemisphere (it can be difficult to see on a laptop screen). Also the SPR looks yellowish.

Now about Olympus: the Mons is bright in every wavelength and even in violet and UV. It could therefore be a cloud, until Andrea's idea of frost is right, as frost is also bright in the shorter wavelenghts. The problem of the cloud is that it's not supposed to appear before 340°Ls (more than one month and a half later than now), and the diffusion of dust looks to have minimize white clouds elsewhere on the planet... It must be either cloud or frost, it looks too bright to be the natural albedo of the volcano. During the opposition period of 2003, Olympus was light in R and G, but not at all in B.

By the way I've changed again my way of processing color images, by adding more green and blue. My previous colors were not satisfying (too contrasted with some overexposed areas) due to a too great importance given to red wavelenghts - however the planet looks more orange visually, to me. As time goes by I find that getting a good reproduction of colors and contrasts is by far the most difficult part of processing. Processing details is very quick and easy, but I spend a lot of time with colors. The UV image is 300x2 sec. Best wishes,

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

●·····Date: Wed, 26 Oct 2005 18:46:16 -0400

Subject: South Floirda in rough shape

Well, hurricane Wilma did more damages to south Florida than I thought at first. Don Parker has a fair amount of damage to the house and can't get gas anywhere, due to down power, so they are taking gas from their cars to run their generator. They do have phone and city water, probably food.

Tippy D'Auria has more damage to his house and the power lines ripped away, roof and general hurricane damages. He has no generator and couldn't get gas anyway he says. He has old Coleman stove, like any smart Florida resident has. Food, water and ice lines are very long, supplies running low, etc. so our friends in south Florida are having a rough go of it. Not as bad a Andrew but nearly so.

Wilma came across between Naples and Everglades City

then took off north east towards the south end of Lake Okeechobee but took a jog directly east for about 40 miles then returned the northeast track that missed us by 70 miles.

The forward speed of the storm increased to 56 MPH and added to the 115MPH winds and gusts for the southern side and of course reduced out wind to 74 MPH and gusts. We had no damages, power up and all is back to normal here. So they got hit bad.

I may take off down there in a few days with supplies and some gas. My Saturn gets 42 MPG so I can take a little food, 15-20 gallons of gas, plus some for me to get back, but not enough to make any difference but will go anyway.

That is if I can get through the several destroyed towns on the way to Miami and if Tippy's neighbors do not shoot and rob me! We'll see. Our daughter is having surgery Friday so we are bringing her back here to stay and then I can get away for a private rescue work.

○·····Date: Tue, 1 Nov 2005 10:43:22 -0500
Subject: Mars drawing

I forgot how to upload images to the OAA. I will attach them herein. Please instruct me how to --getting old you know.

○·····Date: Fri, 4 Nov 2005 09:19:40 -0500
Subject: Re: RE:Jim Bell to the Rescue

Masatsugu, thanks for the concern. We did not have damages to our home here because hurricane Wilma turned directly east for 30-40 miles and took the strongest winds away from us and took them south to Don's house. So, my ancestors are looking over and protecting us: The weather is very nice again and I will do some observing for awhile.

My knees prevent me from climbing a ladder, like one needs to do while observing, but maybe I can finish the observing platform soon and can sit on a stool to observe.

Nice Hubble image and Jim Bell wrote me that he has additional time on HST at opposition on November 7.

Jeff BEISH (ジエフ・ビッシュ FL 美)

●·····Date: Thu, 27 Oct 2005 10:55:51 -0700
Subject: Mars - October 27, 2005

Greetings all: I have been out of imaging for a couple of weeks. I had several weeks of 12 hour days at work, I hurt my back, and weather problems. At any rate I have a few nights worth of images, but have not been able to process them. Here is a set I took last night almost midnight my time. I have been watching the dust clouds develop with much interest through many of your images. On mine this morning I note the notable dust band in the South visible in all wavelengths suggesting the dust has reached the upper atmosphere. It does not appear to have yet reached Hellas in my opinion, based on the fact that the band in blue does not go that far. I do note some disturbances in Oxia Palus, Margeritfer S, M Erythraum and perhaps Chryse. There are hints of obscuration in the green and red image, but not blue. Mostly however, I note a haze over the entire region, notable on the RGB image resulting in reduced contrasts.

I will continue processing my earlier images and get them out soon. Thanks

○·····Date: Sat, 29 Oct 2005 10:45:47 -0700
Subject: Mars - October 29, 2005

All: Here is my preliminary images from this morning. I have three other sets to process, but are from an earlier time. This set shows the dust disturbance best as it is the last set taken for the morning. I wanted to keep going, but the ole body said 20 hours was enough! The dust is strong in green light and is showing on the RGB with a slight greenish tinge to it. I doubt this is normal, but a result of

processing. It does show up easily though because of this.

Dust activity has quieted down from the day before, but still strongly visible and appears to be terrain following. The activity is barely or not visible at all in blue, indicating the dust did not make it into the upper atmosphere.

The dust remnant from last week's activity is still visible to the South, but is breaking up and dissipating. It is still visible in blue so may take a while to totally disappear.

○·····Date: Sun, 30 Oct 2005 03:40:16 -0700
Subject: DUST ALERT ON MARS (AGAIN)

All, There is another outburst on Mars. It has encroached onto Sinus Meridiani. Here is a Red image hot off the press along with a comparison image from the 29th of October.

○·····Date: Sun, 30 Oct 2005 09:21:14 -0700
Subject: Mars - October 30, 2005 OR Mars we hardly knew ya!

Greetings again: Well folks this is one of the hardest emails I have had to write. I almost did not send it, but decided what the heck I'm only an amateur astronomer anyhow. So what if I ruin my reputation! I really was doubting what I was seeing for a while on my images. The colors are kind of weird. Thank God I imaged more than one set of images. Well here goes. As soon as I focused the camera this morning, I literally dropped my jaw when I saw the red image on my screen. Seeing was steady though the resulting images are not as good as I hoped.

It would appear we have a major outbreak of dust on ole Mars. The images are hard for me to interpret as it is hard to tell what is dust, cloud, albedo, etc.

S Meridiani and S Sabaeus are partially obscured by dust and it appears to have headed on Southward and Westward of the original area on the 28th. South of this area, is a strong blue clearing, so to speak, of a small dark streak also dark in green. It is normal in Red. The result in the RGB image is a dull reddish mark or blotch. I don't know how to interpret this mark. Could be the actual dust disturbance in shadow or could be a shadow of its own from a dust cloud or a combination of both. Could be, I just don't know!

At any rate I'll let you interpret these images for your selves. I apologize for the colors, but it seems the dust is throwing off what otherwise would be normal colors.

It is possible that despite my feelings that this was not going global, it may at least encircle the Southern Hemisphere soon. Mars we hardly knew ya! Thanks

○·····Date: Sun, 30 Oct 2005 15:31:38 -0700
Subject: Martian Atmospheric Changes -

Here is an image set showing changes in the atmosphere for October 29-30, 2005. What will tonight bring? Thanks

Dave MOORE (デーヴ・ムーア AZ 美)

●·····Date: Thu, 27 Oct 2005 17:03:09 -0400
Subject: Mars Observation (October 26, 2005)

I made an observation of Mars the day after South Florida was pummeled by Hurricane Wilma. We suffered significant damage (homes, trees and other objects) as we were subjected to winds over 130 miles per hour (>208 km/h) for several hours. My observation was made using my older Celestron 8-inch SCT as I had no power for nearly five days (no tracking of the planet possible). I am in the process of cleaning up and will have to make my notes brief.

○·····Date: Thu, 3 Nov 2005 12:48:37 -0500
Subject: Mars Observation (November 3, 2005)

I made a pair of Mars observations on November 3, 2005 (04:45 and 05:45U.T). The following (morning) limb appears to contain dust (a dull beige color noted) as well as portions of the southern hemisphere (especially over Eridania-Ausonia). Hesperia may have contained some

dust as well. I welcome any comments on my observations.

○.....Date: **Mon, 7 Nov 2005 02:17:30 -0500**
Subject: Mars Observation (November 7, 2005)

I made a pair of Mars observations on November 7, 2005 (02:15 and 02:50 U.T.) under average seeing conditions (5/10, the atmosphere did steady for brief moments to 6-7/10). Electris and Eridania appeared bright and both exhibiting a mildly yellow-mustard color (dust?). "Valhalla" was diffusely visible following the CM. I welcome any comments on my observations. Regards,

○.....Date: **Tue, 8 Nov 2005 20:50:35 -0500**
Subject: Mars Observation (November 8, 2005)

I made a pair of Mars observations on November 8, 2005 (00:50 and 01:15 U.T.) under average to good seeing conditions (6-7/10). Much detail was noted over the southern hemisphere from Solis Lacus to Mare Cimmerium. Olympus Mons (orographic cloud) was noted as well. I welcome any comments that you may have on my observations.

Carlos HERNANDEZ (カールロス・ヘルナンデス Miami, FL美)

●.....Date: **Fri, 28 Oct 2005 17:12:38 +0100**
Subject: Solis Lacus recent changes.

Hi all, I noticed a change in Solis Lacus has occurred after the recent storm. A southward darkening has occurred SE into Thaumasia. A faint streak of dust also remains over Solis Lacus in the 10/27 image.

http://homepage.ntlworld.com/damian.peach/solislacus_changes2005.jpg

○.....Date: **Fri, 28 Oct 2005 19:22:42 +0100**
Subject: Mars images (October 21-22nd, 2005.)

Hi all, Here are some Mars images from October 21-22nd. The first of two nights at Sir Patrick's Moore's home on the south coast of the UK. The first set with Syrtis Major central is from the C9.25 hand focused. Seeing was fair.

The second set is quite a special one, being taken with Patrick's historic 15" F/5.9 Fullerscopes newtonian. This telescope is famous among anyone who has ever read his books, with him often being picture alongside it (photo attached.) He made many observations of Mars, and the other Planets with this telescope and it though having observed before through this telescope, it was a special moment to obtain some images of Mars with this historic telescope. Ian Sharp and Myself combined efforts for the second set of images from the newtonian under poorer seeing.

http://homepage.ntlworld.com/damian.peach/2005_10_21rgb_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_10_21rgb_moore.jpg

○.....Date: **Sat, 29 Oct 2005 18:37:08 +0100**
Subject: Mars images (October 22-23rd, 2005.)

Hi all, Here is a long sequence from the second night at Patrick's Moore's home. The dust was seen near the end of the session over Argyre. Also some dust over Mare Erythraeum. Nice activity in Blue light with a brilliant NPH.

http://homepage.ntlworld.com/damian.peach/2005_10_22-23rgb_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_10_22-23red_DAP.jpg

http://homepage.ntlworld.com/damian.peach/2005_10_22-23blue_DAP.jpg

○.....Date: **Sat, 29 Oct 2005 21:03:00 +0100**
Subject: Mars images (October 25-26th, 2005.)

Hi all, Back home for these images. Seeing poor (like it has been almost every night this month.) The Elysium hemisphere is presented here at the moment, and no dust activity is present anywhere on this side of the Planet. The SPC shows some interesting detail in red, with a possible rift.

http://homepage.ntlworld.com/damian.peach/2005_10_25-26rgb_DAP.jpg

○.....Date: **Sun, 30 Oct 2005 14:11:20 -0000**
Subject: Mars images (October 27th, 2005.)

Hi all, Here are some images from the 27th. Very poor seeing. The blue syrtis cloud seems to be present in this set

of images though i didnt verify it at the eyepiece.

http://homepage.ntlworld.com/damian.peach/2005_10_27rgb_DAP.jpg

○.....Date: **Sat, 5 Nov 2005 15:13:46 -0000**
Subject: Mars images (November 3rd, 2005.)

Hi all, Here are some images from Nov 3rd. Poor-fair seeing after many days of poor weather and rain.

Some interesting detail present on this hemisphere. Notably Olympus Mons is shining brightly in Red (easy to see visually.) Also fairly bright in Blue. Some interesting reddish spots across Electris/Phaethontis. Some reddish streaks across Mare Chronium also. The Arsia Mons cloud is very weak in blue. The SPC remnant can just be seen in Red.

http://homepage.ntlworld.com/damian.peach/2005_11_03rgb_DAP

It was also clear last night but too poor to do anything. On the whole its been a disappointing opposition period due to such poor weather. Best Wishes

○.....Date: **Sat, 5 Nov 2005 20:59:59 -0000**
Subject: Re: Mars, november 4th

Hi Christophe/Richard, Looking at all the images, Olympus is brighter in IR and Red than any other filter. I think perhaps there is a weak orographic cloud there, but much of the brightness i think is on the surface (perhaps some dust on the slopes has been suggested.) There must be some cloud over it as the violet image shows it clearly, but it is really shining brightly in R and IR. Best Wishes

Damian PEACH (テミアン・ピーチ Bkh 英)

●.....Date: **Sat, 29 Oct 2005 08:02:31 +0900**
Subject: Mars-2005-10-27-KUMAMORI

60cmでやっとな撮影できました。

○.....Date: **Mon, 31 Oct 2005 11:00:41 +0900**
Subject: Mars-2005-10-30-KUMAMORI

最接近の日でしたが、夕方から一時的な雨が降り、慌てて望遠鏡にカバーをし、後、雲間からの撮影でした。シーイングは最悪でした。

○.....Date: **Tue, 01 Nov 2005 22:22:58 +0900**
Subject: Mars-2005-10-31-KUMAMORI

なかなかシーイングは良くなりませんが、黄雲は広がりそうになっています。

○.....Date: **Fri, 04 Nov 2005 10:44:03 +0900**
Subject: Mars-2005-11-03-KUMAMORI

天気予報が外れて晴れましたが、無風状態に近い割に、シーイングは良くなりませんでした。眼視では南半球全体が黄色くて模様が霞んでいます。

○.....Date: **Sat, 05 Nov 2005 01:05:24 +0900**
Subject: Mars-2005-11-04-KUMAMORI

穏やかに晴れてシーイングは良さそうに見えたのですが、伸び悩みと言いましょか、ベランダの間隙からでは限界なのかも知れません。

○.....Date: **Tue, 08 Nov 2005 20:22:54 +0900**
Subject: Mars-2005-11-07-KUMAMORI

黄雲は静かになってきたと思います。火星色？は少し濃いめに表現しています。

○.....Date: **Wed, 09 Nov 2005 01:08:22 +0900**
Subject: Mars-2005-11-08-KUMAMORI

晴れが続いていますが、Seeingは悪化しています。
熊森 照明 (Teruaki KUMAMORI 堺 Osaka)

●.....Date: **Sun, 30 Oct 2005 16:56:55 +0000**
Subject: Mars Oct 29, 2005

Dr. Mr. Minami and Mr. Murakami, here are some modest images at day 29. Hope any of them would be included in the CMO/OAA Gallery. Best wishes.

Javier SANCHEZ (ハビエル・サンチェス Tenerife 西)

●.....Date: **Sun, 30 Oct 2005 09:34:27 -0800**

Subject: Re: Mars - October 30, 2005 OR Mars we hardly knew ya!

David (MOORE): Great images! Just so you don't feel like you're "losing it", I imaged the same thing last night. I'm still processing my videos, and will send the images along when I'm done, but that "brick red" spot got my attention as well. I'm wondering if what we're seeing, in addition to a local blue clearing perhaps, is a local removal of bright dust over darker red soil ahead of the dust storm front? I worked on the Mars Pathfinder and MER rover missions, and found that just underneath the bright reddish surface, the soil had that brick reddish color when disturbed. This is just a mental exercise, of course, as the scales are vastly different!

○.....Date: Sun, 30 Oct 2005 10:45:56 -0800
Subject: Mars Obs, October 30th

All: Attached are my observations from last night/this morning. My images show the same "brick reddish" patch southeast of the advancing dust storm that David Moore reported. planetarily,

Tim PARKER (ティモシー・パーカー JPL CIT CA 美)

●.....Date: Sun, 30 Oct 2005 20:21:55 -0800
Subject: My dust storm coverage from 10/29 and 10/30

Well, this is the first time I worked up the nerve to send my images to this list of distinguished observers J. I was able to capture the dust storm on 10/29 with my 5-inch refractor. In some forums at the time, I also included a joke about "seeing the rover" over S Meridiani and how the storm has missed it (see OpportunityRover.jpg) J. Well, early this morning, it appeared the storm has moved into the area of the rover (captured with my 4-inch refractor on 10/30). This apparition has been full of fun so far (when weather cooperates) and in many ways different from the 2003 apparition. Respectfully yours,

Ron B[ee] (ロン・ビー CA 美)

●.....Date: Tue, 01 Nov 2005 03:33:04 +0000
Subject: Happy Halloween

Hi All, No electricity. no telescope. no Mars ... but Happy Halloween anyway! Best,

Don PARKER (唐那・派克 Miami FL 美)



●.....Date: Sun, 6 Nov 2005 10:46:58 +0100 (CET)
Subject: Re: Mars, november 4th

Dear all, Last night (Nov. 5, 22-24h UT), the seeing was at some times not too bad (but got worse later) and the area of Olympus mons was clearly visible in the 40.7-cm ×461 and ×700 -- visually with no filter. Not really whitish, rather orange-yellow as the rest but brighter and surrounded by darker patches. Drawings will follow later. Phobos and especially Deimos were also visible around 23-23:30 (for Phobos - Deimos all night on the other side).

○.....Date: Mon, 7 Nov 2005 10:38:24 +0100 (CET)
Subject: Mars Observation (4-5 November 2005)

Dear all, Following the e-mail I sent yesterday, here are drawings made in the nights of Friday/Saturday and Saturday/Sunday 5/6 November in the 40.7cm reflector. Seeing was not very good, maybe slightly better at some point on Saturday evening around 23 UT, when a hint of the SPC was seen: extremely small, maybe 1"x0.3" at best on the limb. Phobos (a bit in the glare of Mars) and Deimos (easy) were also seen (second drawing).

Clear and Steady skies,

Nicolas BIVER (ニコラ・ビヴァール Versaille 法)

●.....Date: Thu, 3 Nov 2005 09:47:32 EST
Subject: MARS and The Sky At Night, BBC TV

Dear BAA Mars observers: For the UK members amongst you it may amuse you to know that I will be appearing in 'The Sky At Night' programme on BBC1 this Sunday at 11.50pm. During the making of the programme I talked about the planet Mars with Sir Patrick Moore, and was filmed observing with one of his telescopes. All good fun, but who knows how they will have edited it?

With best wishes,

Richard McKIM (理查・麥肯 BAA Mars 英)

●.....Date: Mon, 31 Oct 2005 21:08:03 +0100
Subject: Re: Mars, october 29th

Chris, I think it was morning mist to, I observe this morning and the same dust on the limb, but halve hour later is disappear. It was very good to see in blue and green light.

○.....Date: Sat, 5 Nov 2005 21:25:34 +0100
Subject: Re: Mars, november 4th

Hi Christophe, nice to hear and see your images with a fair seeing. All images from this day(2005/11/5) have the same clouds over Olympus. So Damian images too and my images have the same clouds. The seeing here in Holland was not the best, poor seeing. High clouds and windy, so it was difficult to get a decent RGB image.

Richard BOSMAN (リチャルト・ボスマン Enschede 蘭)

●.....Date: Sat, 5 Nov 2005 22:53:46 -0600
Subject: Bates images at close approach

Dear Friends: Travel and other distractions have prevented me from processing several Mars images taken at or near close approach for 2005. My image from 10/29/2005 shows much detail as Syrtus Major faced toward Texas. Mars is fading away, but the memories remain fresh. I hope everyone was able to enjoy many happy nights gazing at Mars.

○.....Date: Sun, 6 Nov 2005 23:12:49 -0600
Subject: Another Mars image from close approach

Dear Colleagues: Image taken when planet was 20.17 a.s. A wonderful site in the eyepiece! Mars did not disappoint.

Donald R BATES (ドナルド・ベーツ Houston, TX, USA)

●.....Date: Sun, 06 Nov 2005 22:44:44 +0900
Subject: 火星の画像

帰国後、如何お過ごしでしょうか。沖縄地方はここ数日、今の季節には珍しく良シーイングに恵まれ

ました。未処理の画像がたまっているのですが、とりあえず画像処理の終わったものを別添のとおり送信します。黄雲の影響で、模様のコントラストがずいぶん落ちた感じがします。

宮崎 勲 (Isao MIYAZAKI うるま Okinawa)

●.....Date: Mon, 07 Nov 2005 19:59:24 +0900
Subject: 火星画像 (11月4日) 報告

東京の岡野です。多忙で時間が取れず、天候不順やら、最接近中は海外出張と、障害ばかりでなかなか撮れませんでした。やっと最接近後の火星が撮れましたので報告いたします。

11月ともなると東京はシーングが不良で期待したほどは写りませんでした。

撮像時、ちょうどフォボスが火星面を通過しているはずですが、まったく見えないようです。ひょっとすると黒く見えるかと思いましたが。

岡野 邦彦 (Kunihiko OKANO 世田谷Tokyo)

●.....Date: Wed, 9 Nov 2005 00:32:31 +0900
Subject: Mo07Nov_05

浅田氏からのメールを送っていただき有難うございました。さっそくインストールしてみます。

07Novをお送りします。この時間は良かったのですが、このあとは風が出て急に悪くなりました。

今日は余り良くありませんが、撮っていますので後日送ります。

森田 行雄 (Yukio MORITA 廿日市 Hiroshima)

●.....Date: Tue, 1 Nov 2005 08:04:23 -0000
Subject: Re: Mars 10-31

シー・エム・オー・フクイ

中島 孝 Nj

★前号報告以降、宮崎 勲様(370)、藪 保 男様(371)、熊森 照明様(372)よりカンパを頂戴しました。有難うございました。不一

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

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