

MARS

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OBSERVATIONS

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THIS report deals with the Mars Observations made during the one-month period from **16 July 2005** to **15 August 2005**. The Martian season proceeded from $\lambda=250^\circ\text{Ls}$ to 270°Ls , and the apparent diameter δ increased from 10.2" to 12.5". The central latitude ϕ and the phase angle ι went down from 21°S to 16°S and from 47° to 46° respectively. The apparent declination was from $+6^\circ18'$ to $+12^\circ10'$, and as the planet appears in the eastern sky it rapidly rises high up. The western quadrature occurred on 12 July at 23hrs GMT, and so Mars shines at meridian at dawn. At Fukui, the planet showed as it reached the meridian a good seeing on 7 Aug ($\lambda=265^\circ\text{Ls}$) at 5:20JST (20:20GMT ($\omega=215^\circ\text{W}$)), and we could catch the final Novus Mons coming from the morning limb at the SH as well as the detailed Ætheria dark patch on the NS together with an off-white light matter near the nph. However in general the seeing condition has been poor this summer even at dawn since the Pacific High Pressure Atmosphere has been weaker and our district has suffered from a lot of thunderheads coming up from the mountain side.

♂……………今回は2005年七月16日GMTから八月15日GMT迄の一ヶ月の火星観測を扱う。この間、火星の季節は $\lambda=250^\circ\text{Ls}$ から 270°Ls に進捗した。視直径 δ は10.2秒角から12.5"へと伸びた。 ϕ は 21°S から 16°S へ降りてきている。位相角 ι は 47° からほんの少し 46° となった。視赤緯は $+6^\circ18'$ から $+12^\circ10'$ に昇って、東の空に現れると急激に高くなる。西矩が13July8hrsJSTであったから、夜明けには天頂近くで南中となり、屈折では往生する。ただ、反射と比べて像が正立するのが有り難い。福井では7Aug($\lambda=265^\circ\text{Ls}$) 20:20GMT($\omega=215^\circ\text{W}$)には薄明の中火星はグッとシーイングが好くなって、南極冠の右、朝方に入ってくる最終段階のノウウス・モンスや北半球では北邊のアエテリアの暗斑のギザギザが見えた。北極雲に沿う邊りにoff-whiteの明斑がエリュシウムの方に走る。然し、今夏は太平洋高気圧の張り出しが弱いのと、入道雲がよく湧いて一般にシーイングは好くなく、南中時でもガッカリすることが多い。

♂……………Several new comers are welcomed from Europe and the US. However, in our land we miss the activities of AKUTSU and KUMAMORI. The former is now at the Philippines to work, and KUMAMORI's veranda does not allow him to catch the high-upped Mars. We have only to expect him to work hard after opposition at the Sofia Sakai Observatory.

♂……………火星が北半球に移った所爲か、北アメリカ、ヨーロッパの観測者が急増している。日本は阿久津(Ak)氏が不調なのと、熊森(Km)氏のヴェランダ観測が不可能になって衝後まで待たなくてはならないのは残念である。中島(Nj)氏は夏の課外授業から解放されたようで、相当頑張った。

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

2 CCD Images (3, 13 August 2005) $f/33 \otimes 35\text{cm}$ SCT with ToUcam pro

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

11 CCD Images (18, 26, 27 July; 3, 4, 11, 12, 14 August 2005)

$f/40,55 \otimes 33\text{cm}$ spec/ $f/45,47,48,57 \otimes 40\text{cm}$ spec with a ToUcam 740

- BARNETT, John H ジョン・バーネット (JBn)** 維吉尼亞 Richmond, VA, USA
2 Drawings (21 July; 13 August 2005) 270, 360, 540×18cm refractor[§],
[§] Richmond Astronomical Society Ragland Observatory
- BATES, Donald R ドン・ベーツ (DBt)** 德克薩斯 Houston, TX, USA
2 CCD Images (28 July; 13 August 2005) $f/27 \otimes 25$ cm spec with a ToUcam
- BIVER, Nicolas ニコラ・ビヴェール (NBv)** 凡爾賽 Versailles, Yvelines, France
1 Colour Drawing (16 July 2005) 700×41cm speculum
- BOSMAN, Richard リシャルト・ボズマン(RBs)** 荷蘭 Enshed, Nederland
1 CCD Image (18 July 2005) 28cm SCT with ATK-2HS
- BUDA, Stefan ステイーファン・ブダ (SBd)** 墨爾本 Melbourne, Australia
1 CCD Image (4 August 2005) $f/16 \otimes 40$ cm Dall-Kirkham with a ToUcam
- BUNGE, Robert ボブ・バンジ (RBg)** 馬里蘭 Bowie, MD, USA
2 Drawings (3, 14 August 2005) 210×11cm $F/7.8$ spec/260, 480×43cm spec
- CHAVEZ, Rolando ロランド・チャヴェス (RCv)** Powder Springs, GA, USA
12 CCD Images (24, 26 July; 3, 13, 15 August 2005)
 $f/50 \otimes 25$ cm $F/12.5$ Maksutov with a ToUcam
- DICKINSON, William H ビル・ディキンソン (WDe)** Glen Allen, VA, USA
9 CCD Images (26 July; 2, 3, 5, 11,~13 August 2005)
 $f/25 \otimes 20$ cm SCT with a ToUcam Pro II
- FUMEGA UCHA, Camilo カミーロ・フメガ (CFm)** 西班牙 Ourense, España
3 CCD Images (22, 31 July; 14 August 2005) 31cm spec with a ToUcam
- GRAFTON, Edward A エド・グラフトン (EGf)** 德克薩斯 Houston, TX, USA
12 Sets of CCD Images (17, 19, 22, 25, 26, 29 July; 1, 2, 3, 7, 8 August 2005)
 $f/27 \otimes 35$ cm SCT with an ST402
- HEFFNER, Robert ロバート・ヘフナー (RHf)** 名古屋 Nagoya, Aichi, Japan
18 CCD Images (18, 20, 21, 24, 27, 30 July; 4, 5, 10 August 2005)
 $f/30 \otimes 28$ cm SCT with Lu075M (Lumenera)
- HIDALGO TORTOSA, Emilio エミリオ・ヒダルゴ (EHd)** 西班牙 La Carolina, Jaén, España
1 Set of CCD Images (12 August 2003) $f/50 \otimes 30$ cm Dall-Kirkham, ToUcam ICX424
- KARRER, Michael ミハエル・カッレル (MKr)** 奧地利 St Radegund, Österreich
1 CCD Image (13 August 2005) 18cm Meade Refraktor 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 Red Image (13 August) $f/20 \otimes 20$ cm SCT with a ToUcam Pro
- KOWOLLIK, Silvia シルヴィ・コヴォリク(SKw)** 薩斯圖加特 Stuttgart, Deutschland
1 CCD Image (10 August 2005) 18cm Starfire Refraktor with ToUcam 740
- MATSUMOTO, Naoya 松本 直弥 (Mt)** 佐世保 Sasebo, Nagasaki, Japan
11 CCD Images (20 July; 3 August 2005) 40cm spec with ToUcam
- MELILLO, Frank J フランク・メリッロ (FMI)** 紐約 Holtsville, NY, USA
3 Red CCD Images (21, 24 July; 4 August 2005) 20cm SCT with a Starlight Xpress MX5
- MINAMI, Masatsugu 南 政次 (Mn)** 福井 Fukui, Fukui, Japan
68 Drawings (17, 19, 20, 24, 27, 28, 31 July; 3, 5, 6, 7 August 2005)
400, 480, 600×20cm GOTO ED refractor*

* Fukui City Observatory 福井市自然史博物館屋上天文臺

- MIYAZAKI, Isao 宮崎 勳 (My)** 沖縄・うるま Uruma, Okinawa, Japan
2 CCD Images (13 August 2005) $f/50 \otimes 40\text{cm}$ speculum with ToUcam Pro
- MOORE, David M デヴィッド・ムーア (DMr)** 亞利桑那 Phoenix, AZ, USA
11 Sets of CCD Images (20, 22, 26, 28, 30 July; 4, 11 August 2005)
 $f/37 \otimes 25\text{cm}$ speculum with ATK-IHS
- MORITA, Yukio 森田 行雄 (Mo)** 廿日市 Hatsuka-ichi, Hiroshima, Japan
14 Sets of RGB Images + 2 IR Images (22 July; 3, 5, 7 August 2005)
25cm spec with an ST-5C
- MURAKAMI, Masami 村上 昌己 (Mk)** 藤澤 Fujisawa, Kanagawa, Japan
14 Drawings (17, 27, 30 July; 4, 6 August 2005) 320, 400×20cm speculum
- NAKAJIMA, Takashi 中島 孝 (Nj)** 福井 Fukui, Fukui, Japan
65 Drawings (16, 17, 20, 21, 24, 27, 28, 31 July; 1, 3, 5, 7, 8, 10 August 2005)
400, 480, 600×20cm GOTO ED refractor*
* Fukui City Observatory 福井市自然史博物館屋上天文臺
- NARITA, Hiroshi 成田 廣 (Nr)** 川崎 Kawasaki, Kanagawa, Japan
9 Drawings (17, 31 July; 1, 7, 10, 13 August 2005) 400×20cm refractor
- PARKER, Donald C ドン・パーカー (DPk)** 佛羅里達 Miami, FL, USA
15 Sets of RGB Images (22, 24, 29 July; 2, 4, 6 August 2005)
 $f/55 \otimes 41\text{cm}$ F/6 spec equipped with an ST9XE
- PEACH, Damian A デミアン・ピーチ (DPc)** 英國 Loudwater, Buckinghamshire, UK
33 Sets of CCD Images (16, 17, 18, 21, 22, 30 July; 2, 7, ~13, 15 August 2005)
 $f/40 \otimes 35\text{cm}$ SCT with Lu075 (Lumenera)
- PELLIER, Christophe クリストフ・ペリエ (CPl)** 法國 nr Paris, France
10 Sets of CCD RGB Images (16*, 17* July; 2, 9, 11 August 2005)
 $f/46 \otimes 21\text{cm}$ Mewlon with ATK-IHS*/ToUcam
- PUJIC, Zac ザック・プジッチ (ZPj)** ブリスベン Brisbane, Australia
1 CCD Image (8 August 2005) $f/29 \otimes 31\text{cm}$ spec with ToUcam II
- ROSOLINA, Michael マイケル・ロゾリーナ (MRs)** 西維吉尼亞 Friars, WV, USA
5 Colour Drawings (26, 27 July; 2, 4, 12 August 2005) 250, 340, 420×20cm SCT
- SHERROD, P Clay クレイ・シャロド (CSr)** 阿肯色 Aso Sky Observatory, AR, USA
4 CCD images (25 July; 8, 12, 13 August 2005) $f/24 \otimes 40\text{cm}$ RC with a ToUcam Pro
- TATUM, Randy ランディ・テータム (RTm)** 維吉尼亞 Richmond, VA, USA
12 CCD Images (23, 27 July; 1, ~5, 12, 13, 15 August 2005)
25 cm spec with a ToUcam
- TEICHERT, Gérard ジェラルド・タイシエルト (GTc)** 法國 Hattstatt, France
3 Drawings (5, 10, 13 August 2005) 330, 350×28cm SCT
- TYLER, David デーヴ・タイラー (DTy)** 英國 Flackwell Heath, Buckinghamshire, UK
18 Sets of CCD Images (16, 18, 22, 30* July; 2*, 4, 6, ~12, 13~15* August 2005)
 $f/44,46,47,50,51 \otimes 28\text{cm}$ SCT with ATK-IHS/ToUcam 840*
- VALIMBERTI, Maurice モーリス・ヴァリムベルティ (MVI)** 墨爾本 Melbourne, Australia
2 CCD Images (31 July; 4 August 2005) $f/40 \otimes 35\text{cm}$ SCT with a ToUcam
- VANDEBERGH, Ralf ラルフ・ファンデルベルフ (RVb)** 荷蘭 Nederland
7 CCD Images (16, 18* July; 2, 3*, 4*, 13 August 2005)
25cm spc with ATK-IHS/ToUcam 740*

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

5 CCD Images (21, 29 July; 3, 4 August 2005)

18cm Maksutov-Newtonian with a ToUcam/Canon Powershot A-85

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

5 CCD Images (3, 21, 22, 30, 31 July 2005) 20cm SCT with a ToUcam

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

1 Set of CCD Images (31 July 2005) $f/50 \otimes 20\text{cm}$ spec with a ToUcam

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

31 Sets of CCD RGB Images (17, 27, 28, 31 July; 1, 6, ~8, 11, 13 August 2005)

20cm spec with ATK-1HS II& a ToUcam

♂.....**The SPC, Novus Mons, Thyles Mons, Rima Angusta:** The south polar cap (spc) was well thawing, and the present period was pertinent to seeing the detachment and the melting away of Novus Mons (in 2003 we judged it detached around at $\lambda=250^\circ\text{Ls}$, and disappeared at $\lambda=269^\circ\text{Ls}$ - see CMO #280 Report #15). The result turned out not so different as expected. On GRAFTON (*EGf*)'s image made on 17 July ($\lambda=251^\circ\text{Ls}$) at $\omega=281^\circ\text{W}$, Novus Mons is located this side, but not so resolvable since $\delta=10.5''$. From Japan, we were able to catch it around from 19 July: The present writer (*Mn*) observed Novus Mons which was detached and disappearing to the rear side on 19 July ($\lambda=252^\circ\text{Ls}$) at $\omega=000^\circ\text{W}$, 010°W , 019°W , 029°W , 039°W , and on 20 July ($\lambda=253^\circ\text{Ls}$) at $\omega=350^\circ\text{W}$, 000°W , 010°W , 019°W . MATSUMOTO (*Mt*) shot the images which showed the outgoing Novus Mons on 20 July ($\lambda=253^\circ\text{Ls}$) at $\omega=357^\circ\text{W}\sim 021^\circ\text{W}$. Novus Mons faced to us on 27 July, 28 July ($\lambda=258^\circ\text{Ls}$): HEFFNER (*RHf*) produced good images of Novus Mons showing up on this side on 27 July ($\lambda=258^\circ\text{Ls}$) at $\omega=296^\circ\text{W}$, 311°W . The morning Novus Mons was caught by *EGf* on 22 July ($\lambda=254^\circ\text{Ls}$) at $\omega=234^\circ\text{W}$. The writer (*Mn*) last saw a tip of the morning Novus Mons on 7 Aug ($\lambda=265^\circ\text{Ls}$) at $\omega=215^\circ\text{W}$, while he chased it on 6 Aug ($\lambda=264^\circ\text{Ls}$) at $\omega=195^\circ\text{W}$, 205°W , 215°W , 225°W , 234°W . Turning to Europe, PEACH (*DPc*) and TYLER (*DTy*) shot it continuously from 4 Aug: On 2 Aug ($\lambda=261^\circ\text{Ls}$) at $\omega=020^\circ\text{W}$, *DTy*'s image showed it as if its west end was quite elongated further though the west end of Novus Mons. Novus Mons should be less than the line $\Omega=333^\circ\text{W}$ however. In 2003 at the same season, there was certainly observed a light streak beyond the west of Novus Mons as seen on images of KUMAMORI and OKANO on 18 Sept ($\lambda=263^\circ\text{Ls}$) 2003 at $\omega=332^\circ\text{W}$ and $\omega=333^\circ\text{W}$ respectively, but the difference was very distinct. The westward elongated tail is already apparent on *RHf*'s image on 21 July ($\lambda=254^\circ\text{Ls}$) at $\omega=011^\circ\text{W}$, and a small dust streak might have risen counterclockwise from the end of Novus Mons. PELLIER (*CPl*)'s B image on 9 Aug ($\lambda=265^\circ\text{Ls}$) at $\omega=320^\circ\text{W}$ does not show the tail, and hence it might not have been water-condensate. Finally the images on 10 Aug ($\lambda=266^\circ\text{Ls}$) of *DTy* at $\omega=307^\circ\text{W}$, and of *DPc* at $\omega=310^\circ\text{W}$ seemed to discriminate Novus Mons from the tail. ANDERSON (*DAd*)'s image on 12 Aug ($\lambda=267^\circ\text{Ls}$) at $\omega=007^\circ\text{W}$, 014°W , and DICKINSON (*Wdc*)'s one on 13 Aug ($\lambda=268^\circ\text{Ls}$) at $\omega=204^\circ\text{W}$ show the evening Novus Mons. CHAVEZ (*RCv*)'s image made on 15 Aug ($\lambda=269^\circ\text{Ls}$) at $\omega=356^\circ\text{W}$ shows the final state of Novus Mons.

Thyles Mons was quite apparent in 2003 after the start of the deviation of the centre of the spc around from $\lambda=235^\circ\text{Ls}$ up until $\lambda=254^\circ\text{Ls}$, while this apparition we have not received such an explicit image that we had in 2003. In 2003, as reported in CMO #289 Report #14, the final state of Thyles Mons was shot severally from the Asia-Oceania hemisphere on 1 Sept ($\lambda=252^\circ\text{Ls}$) 2003, and on 2 Sept ($\lambda=253^\circ\text{Ls}$) 2003 including the decay projection from Thyles Mons. This time, a chance of detecting the decay was shared by the European observers: The candidates are on those images taken on 16 July ($\lambda=250^\circ\text{Ls}$) by *DPc* at $\omega=178^\circ\text{W}$, 183°W , and those by *CPl* at $\omega=174^\circ\text{W}$, 185°W etc, though Thyles Mons is not explicit on these images. The final stage should have been conveyed on the image by *DTy* on 18 July ($\lambda=251^\circ\text{Ls}$) at $\omega=157^\circ\text{W}$, as well as on *DPc*'s image on 21 July ($\lambda=253^\circ\text{Ls}$)

at $\omega=132^\circ\text{W}$. The latter may suggest the decay, though the seeing was not favourable. Turning to America, *DPk* produced nice images on 29 July ($\lambda=259^\circ\text{Ls}$) at $\omega=138^\circ\text{W}$, but show no trace of Thyles Mons any longer.

Rima Angusta is the rift that separates the residual part of Hypernotius Mons and the fast thawing part of Argenteus Mons, and this apparition it was successfully shot by *RHf* on 18 July ($\lambda=252^\circ\text{Ls}$) at $\omega=030^\circ\text{W}$, 044°W . Turning to Europe, it was shown by *DPc* on 30 July ($\lambda=259^\circ\text{Ls}$) at $\omega=041^\circ\text{W}$, and on 2 Aug ($\lambda=261^\circ\text{Ls}$) at $\omega=017^\circ\text{W}$. Further turning to America, the rift was shown by *DPk* on 4 Aug ($\lambda=263^\circ\text{Ls}$) at $\omega=068^\circ\text{W}$, 081°W , 085°W , by TATUM (*RTm*) at $\omega=070^\circ\text{W}$, 076°W , by WALKER (*SWk*) at $\omega=072^\circ\text{W}$. In 2003, we have few good images of the complex indentation. A clear description was once given by the present writer in "*Sky Watcher's Handbook, The Expert Reference Source for the Amateur Astronomer*" (Ed. J MUIRDEN, W H Freeman Spektrum, 1993) at page 73 (cf a drawing made on 25 Aug 1988 ($\lambda=259^\circ\text{Ls}$) at $\omega=065^\circ\text{W}$). *EGf*'s image on 3 Aug ($\lambda=262^\circ\text{Ls}$) at $\omega=120^\circ\text{W}$ shows how the preceding part including Argenteus Mons became less bright.

Higher Latitude Dusts: It is well known that near the edge of the thawing polar cap there tend to be given rise to dust disturbances because of the critical change of the atmospheric conditions. In 2003, BUDA (*Sbd*) clearly showed at $\lambda=244^\circ\text{Ls}$ (19 August 2003) a rise of a couple of dusts at the area where the polar ice rapidly melted away, and it was pursued until around $\lambda=252^\circ\text{Ls}$ (see CMO #278 report #13). This time it seems for a similar dust to have sprung up at the same area if we look at the images made by *DPk* on 22 July ($\lambda=254^\circ\text{Ls}$) at $\omega=212^\circ\text{W}$, 220°W . This disturbance is also proven on the images of *EGf* on 25 July ($\lambda=256^\circ\text{Ls}$) at $\omega=207^\circ\text{W}$, and on 26 July ($\lambda=257^\circ\text{Ls}$) at $\omega=195^\circ\text{W}$. The area came into sight from Japan around from 31 July, and we saw that the remnant or yellow haze at the evening side was strong: On 3 Aug ($\lambda=262^\circ\text{Ls}$) *Nj* and *Mn* recorded that the south circumpolar band was considerably light (*Mn*: at $\omega=195^\circ\text{W}$, 205°W , 214°W , 224°W and *Nj* intervened): However the spc was clear and bright, and we considered the dust devils arose latitudewise. At $\omega=253^\circ\text{W}$ this area went away and showed that it was not yet linked with Novus Mons. Images on 4 Aug ($\lambda=263^\circ\text{Ls}$) at $\omega=204^\circ\text{W}$ by *RHf*, at $\omega=226^\circ$ by VALIMBERTI (*MVI*) and at $\omega=243^\circ\text{W}$ by *Sbd* show clearly the dusty necklace along the circumpolar region. MORITA (*Mo*)'s images on 5 Aug ($\lambda=263^\circ\text{Ls}$) were made successively at $\omega=200^\circ\text{W}$, 204°W , 209°W , 218°W , 228°W , and 231°W , so that we can judge the range of the circumpolar dust belt. YUNOKI (*Yn*)'s images on 6 Aug ($\lambda=264^\circ\text{Ls}$) at $\omega=193^\circ\text{W}$, 200°W , 206°W , 211°W look to show an elongated core (maybe depending the processing). Turning to Europe, KARRER (*MKr*) showed a clear bit at the evening side on 13 Aug ($\lambda=268^\circ\text{Ls}$) at $\omega=260^\circ\text{W}$, and images on 15 Aug ($\lambda=269^\circ\text{Ls}$) at $\omega=250^\circ\text{W}$ by *DPc*, and at $\omega=252^\circ\text{W}$ by *DTy* show it considerably inside.

It was expected that some dust disturbance was onset northward after the decay of Thyles Mons as in 1971, 1988 and 2003 (as detected by De VAUCOULERS and MIYAZAKI). However since the projection and decay have not been pinned down, it is hard to clarify. Just the image made by *DTy* on 18 July ($\lambda=251^\circ\text{Ls}$) at $\omega=157^\circ\text{W}$ looks suggestive. The aftermath may be seen on the images by *DPk* on 29 July ($\lambda=259^\circ\text{Ls}$) at $\omega=138^\circ\text{W}$, and by *EGf* on 2 Aug ($\lambda=261^\circ\text{Ls}$) at $\omega=122^\circ\text{W}$. It is likely that no particular development was seen.

On the other hand, the disturbance which occurred from edge of the spc northward at the high latitude area to the south of Solis L was rather prominent. Early evidence of the projection from the spc may be seen on the images by *RHf* on 18 July ($\lambda=254^\circ\text{Ls}$) at $\omega=030^\circ\text{W}$, 041°W (*Yn*'s image on 17 July at $\omega=048^\circ\text{W}$ shows a light area near Dia, but no projection explicitly). It was also seen on *RHf*'s image on 21 July ($\lambda=0254^\circ\text{Ls}$) at $\omega=011^\circ\text{W}$, and if this is not any ghost, they are the same phenomenon. On 30 July ($\lambda=259^\circ\text{Ls}$), *DTy*'s image at $\omega=038^\circ\text{W}$ showed a dust-like matter, and the image of *DPc* at $\omega=041^\circ\text{W}$ shows it in a different way. On 2 Aug ($\lambda=261^\circ\text{Ls}$), a lot of shots were made: the morning images were obtained by *DPc* at $\omega=017^\circ\text{W}$, *DTy* at $\omega=020^\circ\text{W}$, and *CPl* at $\omega=021^\circ\text{W}$, and the images near the CM were by *DPk* at $\omega=084^\circ\text{W}$, 094°W , and finally the evening image by *EGf* at $\omega=122^\circ\text{W}$. We may say the area on *DPk*'s images do not particularly show any change near the CM, but anyway these may show a diurnal variation. The images on 3 Aug ($\lambda=262^\circ\text{Ls}$) by *SWk* at $\omega=075^\circ\text{W}$, 080°W , by *WDC* at $\omega=093^\circ\text{W}$, by *RCv* at

$\omega=097^\circ\text{W}$, by *DAd* at $\omega=098^\circ\text{W}$ may be also suggestive. On 4 Aug ($\lambda=263^\circ\text{Ls}$), *DPk* obtained images at $\omega=068^\circ\text{W}$, 081°W , 085°W , *RTm* at $\omega=070^\circ\text{W}$, 076°W , *SWk* at $\omega=072^\circ\text{W}$, *DAd* at $\omega=091^\circ\text{W}$, MELILLO (*FMI*) at $\omega=096^\circ\text{W}$, and finally MOORE (*DMr*) at $\omega=119^\circ\text{W}$, 128°W . *DMr*'s images are always interesting since *DMr* is located westwards and catches the later angles. His shows here a misty configuration over the area. This disturbance was also seen later: on 6 Aug ($\lambda=264^\circ\text{Ls}$) *DPk* recorded at $\omega=056^\circ\text{W}$, 059°W , 066°W , 069°W , on 7 Aug ($\lambda=264^\circ\text{Ls}$) *EGf* at $\omega=070^\circ\text{W}$, on 8 Aug ($\lambda=265^\circ\text{Ls}$) *EGf* at $\omega=071^\circ\text{W}$, on 11 Aug ($\lambda=267^\circ\text{Ls}$) *DMr* at $\omega=051^\circ\text{W}$, 059°W , on 12 Aug ($\lambda=267^\circ\text{Ls}$) *DAd* at $\omega=007^\circ\text{W}$, 014°W , on 13 Aug ($\lambda=268^\circ\text{Ls}$) *RCv* at $\omega=025^\circ\text{W}$. Processing and description are all diverse, and so further discussion is needed.

Noachis from Argyre: The region of Noachis to Argyre looked featureless at the time of the 2003 opposition, but the area was later baptised by the December 2003 dust storm (CMO#285). MORITA (*Mo*)'s images on 22 July ($\lambda=254^\circ\text{Ls}$) at $\omega=344^\circ\text{W}$, 354°W , 003°W show that the broad band from Argyre to Noachis has become less shadowy due to a fallout. *DTy*'s on 6 Aug ($\lambda=263^\circ\text{Ls}$) at $\omega=348^\circ\text{W}$ further shows its whole aspect. This broad route was the place through which the 1956 great dust storm extended to the south polar region (as seen on W S FINSEN and E C SLIPHER's photos at South Africa in 1956).

Arsia Cloud: The activity of the orographic cloud associated with Arsia Mons was decreasing from around $\lambda=200^\circ\text{Ls}$, but once it decreased to a minimal state and then revives to a second peak at $\lambda=290^\circ\text{Ls}\sim 320^\circ\text{Ls}$. On 22 July ($\lambda=254^\circ\text{Ls}$), *DPc* shot it at $\omega=117^\circ\text{W}$ weakly in B, and on 29 July ($\lambda=259^\circ\text{Ls}$) *DPk* confirmed it at $\omega=138^\circ\text{W}$, 144°W (B: at $\omega=137^\circ\text{W}$, 142°W). Furthermore *DMr* also clearly depicted it on 4 Aug ($\lambda=262^\circ\text{Ls}$) at $\omega=120^\circ\text{W}$, 127°W in B. Just *EGf*'s B image on 1 Aug ($\lambda=261^\circ\text{Ls}$) at $\omega=139^\circ\text{W}$ does not show it. The activity of the Arsia cloud is subject to a fluctuation, but statistically we may say the activity has revived. *DMr*'s case was obtained when $\iota=47^\circ$, and so Arsia Mons ($\Omega=120^\circ\text{W}$) was located by 47° from the terminator: That is, it implies it was about 2 hours 45 minutes ($47/15=2:45$) before sunset.

BARNARD's Observation in 1894: Another topic related with Arsia Mons at this season is the problems of Edward E BARNARD's drawing of dark spots made on 26 August 1894 (cited in CMO #264 - 25 Sept 2002 issue-p3436, sent courteously by Tom DOBBINS). This drawing clearly shows Olympus Mons as a dark elliptical spot. Furthermore it clearly conveys another spot to the south of Olympus Mons, and several questions are derived from this spot: 1) is it Arsia Mons' shadow? 2) if so, is there any record of the orographic cloud? 3) If not so, did he use a Red filter to lessen the brightness? 4) Or in Int, was there really no roll cloud around Arsia Mons? 5) In that case, is there no possibility of a thin dust cloud around there? 6) Or is it not Arsia but Phoenicis L suggesting another less shadowy spot that follows the dark spot as Arsia? We know the summit or some side of surroundings of Mons appears as dark spot when 1) the Martian surface is bright covered by the yellow cloud or 2) the phase angle ι is quite large to make explicit the shadow of Mons on the surface to us. If ι is small, even when there is no cloud associated, the Mons aureole shines bright by an opposition effect as in 1990 at the same season. Unfortunately we have no Ephemeris at hand applicable to 1894, while we suppose the Martian season of BARNARD's observation was $\lambda=267^\circ\text{Ls}\sim 270^\circ\text{Ls}$. This is conceived because P LOWELL explicitly writes in his book the southern summer solstice occurred on 31 August 1894 (or 1 September), and the 79 years recurrence in 1973 implies $\lambda=270^\circ\text{Ls}$ on 26 August 1973. This year the period $\lambda=267^\circ\text{Ls}\sim 270^\circ\text{Ls}$ visited on 11 August to 17 August, and fortunately the area of Arsia Mons faced to us (Orientals). Already *Nj* and *Mn* detected Olympus Mons as a dark spot by the use of the 20 cm refractor at Fukui on 7 Aug ($\lambda=265^\circ\text{Ls}$) at $\omega=147^\circ\text{W}$ (*Mn*) at $\omega=152^\circ\text{W}$ (*Nj*), 156°W (*Mn*), 8 Aug at $\omega=142^\circ\text{W}$ (*Nj*), 10 Aug at $\omega=133^\circ\text{W}$, 142°W (both by *Nj*), and so we conjectured we could clear the problems soon. However the weather turned poor here in mid-August. So we asked Isao MIYAZAKI (*My*) at Okinawa to observe the area and take pictures of the area: In Okinawa they have enjoyed fine skies this summer also. *My* then produced two images on 13 Aug ($\lambda=268^\circ\text{Ls}$) at $\omega=146^\circ\text{W}$ and $\omega=155^\circ\text{W}$ by ToUcam as posted in the CMO-Gallery (he could not

afford to watch visually). Since $\iota = 46^\circ$, Arsia was away from the terminator by $90 - (146 - 120) - 46 = 18$ degrees, or it was before sunset by about one hour. On the other hand, in BARNARD's case we don't know its LCM nor the phase angle; However we may adopt $\omega = 145^\circ\text{W}$ (from the drawing) and $\iota = 40^\circ$ (if we follow the case in 1973), and then Arsia Mons is located away from the terminator by 25° , and so *My* might have been late by half an hour. But if we decompose *My*'s images into channel, its B gradients look to show clouds around there. Meantime, YUNOKI (*Yn*) reported a series of images made on 11 Aug ($\lambda = 267^\circ\text{Ls}$) at $\omega = 120^\circ\text{W}$, 132°W , 137°W , 143°W , 147°W , and 155°W . B images at $\omega = 133^\circ\text{W}$, 138°W , 143°W clearly show the cloud near Arsia Mons. R images look to show Arsia Mons as a dark spot as well as Phoenicis L.

We finally note the chance of watching the case at this season rarely visits. In 1990, $\delta = 9.1''$ when $\lambda = 270^\circ\text{Ls}$ (ι and ϕ were the same): From Japan the area was seen, but the present writer scarcely watched the dark spot of Olympus Mons except at $\lambda = 272^\circ\text{Ls}$ (by a 20cm spec).

Hellas: There was a rumour that Hellas showed a dust storm inside since on 21 July ($\lambda = 254^\circ\text{Ls}$) there were produced images which showed a bright Hellas by WARREN (*JWn*) at $\omega = 227^\circ\text{W}$ and *FMI* at $\omega = 230^\circ\text{W}$ and so on. However our *enfant terrible* Christophe PELLIER (*CPl*) immediately denied it (cf CMO #307 p0132) without watching really the surface. His words "*each time Hellas seemed to have only trapped dust without knowing any storm inside*" were impressive to us. It has been really a wrong-told myth to connect Hellas with the dust storm. We would strongly suggest the readers take a look at the CMO-Gallery at the pages of Mars images from May 2003 where ι was maximal. In short the Hellas basin is deep and has a wide wall which shows an opposition effect when ι is large. In 2003, the maximum was $\iota = 43^\circ$ in May, slightly shallow, while even then the mildly processed image of *MVL* on 5 May 2003 ($\lambda = 180^\circ\text{Ls}$, $\iota = 43^\circ$) at $\omega = 234^\circ\text{W}$ well shows a bright Hellas near the limb. In 1990, the phase angle went to $\iota = 47^\circ$ as this year, and the bright Hellas was always watched from Japan in mid-July ($\delta = 8.5''$, $\phi = 18^\circ\text{S}$) and at the later half of August (δ was about $10.4''$, $\phi = 10^\circ\text{S}$, $\iota = 46^\circ$). It is also misleading to consider that the airborne dust inside Hellas causes any time the brightness at the limb. The well-known piece of excellent Kodachrome photo made by R B LEIGHTON at Mt Wilson on 24 August 1956 ($\lambda = 249^\circ\text{Ls}$) shows Hellas near the limb but it is not so brilliant in spite of the fact that it was taken just after the onset of the 1956 great dust storm at Noachis on 20 Aug ($\lambda = 246^\circ\text{Ls}$) and it is supposed the airborne dust was already over the preceding Hellas regions. Note that at that time, the phase angle was just $\iota = 16^\circ$. Theoretically, the possible value of the phase angle must be known when the airborne dust causes the brightest limb side, but as we remember it differs from 47° or 16° . The morning Hellas continues to be bright not because of the dust cloud, but because ι is slow to decrease. It was not known to the American hemisphere if the Noachis region was dusty or not at that time, but from Japan we were attentive to Noachis since it was the season when the 1956 great dust storm was entrained. From 19 through 22 July, there was observed no dust activity at the area following Hellas as observed by *Nj*, *Mn* and *Mo* (as described on the Façade of the CMO-Web). Hellas near the terminator was rather condensate misty as in 1990, while dull near the CM. As August turned in, Hellas showed a tint of cream; less bright than the spc and nph in O56, as light as nph in R60 (*Mn*: 3 Aug ($\lambda = 262^\circ\text{Ls}$) at $\omega = 224^\circ\text{W}$ et al).

Bright area in Eridania-Ausonia: A part of Eridania-Ausonia looks to show a rise of dust on the images processed by *DPk* on 22 July ($\lambda = 254^\circ\text{Ls}$) at $\omega = 212^\circ\text{W}$, and on 24 July ($\lambda = 255^\circ\text{Ls}$) at $\omega = 192^\circ\text{W}$. The brightness is checked also on the image by *FMI* on 24 July ($\lambda = 255^\circ\text{Ls}$) at $\omega = 203^\circ\text{W}$ and so on. *DMr*'s images on 28 July ($\lambda = 258^\circ\text{Ls}$) at $\omega = 187^\circ\text{W}$ still prove. Furthermore it is seen on *Mo*'s images on 5 Aug ($\lambda = 263^\circ\text{Ls}$) at $\omega = 200^\circ\text{W}$, 204°W ; Thus no movement. On the contrary the earlier one by *EGf* on 25 July ($\lambda = 256^\circ\text{Ls}$) at $\omega = 201^\circ\text{W}$ shows also the bright part but it looks just ground lit. The area appeared constantly well bright also in 2003 throughout before opposition through after opposition including the period of June/July dust event (see the 2003 Gallery).

Remark: We incidentally remark that the phase angle ι is a parameter more physically important than the geo-

metrical phase itself. It not only gives the indication of the position of the noon line, but also plays a role of index to show how the markings appear differently because the surface is never flat. In fact the some dark finer markings show up differently before opposition and after opposition when ι is large. This is one of the reasons why any usual simulation fails to produce the real surface. The MGS map is also not realistic since the original swaths give the markings seen only when $\iota=30^\circ$.

♁…………南極冠、ノウウス・モンズ、テュレス・モンズ、リマ・アングスタ：南極冠は順調に縮小しているが、今期はキッカリ、ノウウス・モンズの盛衰に関わった。2003年の場合、分離は $\lambda=250^\circ\text{Ls}$ ころから、消失は $\lambda=269^\circ\text{Ls}$ と判断しているから(CMO#280 Repoer#15)、今回の観測期間に入る。結果的にも似た様な結果であった。グラフトン(EGf)氏の17July($\lambda=251^\circ\text{Ls}$) $\omega=281^\circ\text{W}$ がノウウス・モンズの手前にある姿を示すが、視直径 $\delta=10.5''$ で分離が好くない。今回は分離の好い像は得られていない。日本からは19July邊りから視野に入ってきた。筆者(Mn)は19July($\lambda=252^\circ\text{Ls}$) $\omega=000^\circ\text{W}$ 、 010°W 、 019°W 、 029°W 、 039°W 、翌日20July($\lambda=253^\circ\text{Ls}$) $\omega=350^\circ\text{W}$ 、 000°W 、 010°W 、 019°W で隠れ行くノウウス・モンズを見ているが、松本直弥(Mt)氏が同じ20July($\lambda=253^\circ\text{Ls}$)に $\omega=357^\circ\text{W}\sim 021^\circ\text{W}$ でccd撮像をしている。正面からは27July、28July($\lambda=258^\circ\text{Ls}$)ころ見えた。ヘフナー(RHf)氏は27July($\lambda=258^\circ\text{Ls}$) $\omega=296^\circ\text{W}$ 、 311°W で手前の姿を遺した。西側に消えるノウウス・モンズはEGf氏の22July($\lambda=254^\circ\text{Ls}$) $\omega=234^\circ\text{W}$ 等に見られるが、筆者は7Aug($\lambda=265^\circ\text{Ls}$) $\omega=215^\circ\text{W}$ が最後であった。前日6Aug($\lambda=264^\circ\text{Ls}$)には $\omega=195^\circ\text{W}$ 、 205°W 、 215°W 、 225°W 、 234°W で朝方のノウウス・モンズを見ている。ヨーロッパに移って、英國のタイラー(DTy)氏とピーチ(DPc)氏が4Aug以降連続して撮っているが、2Aug($\lambda=261^\circ\text{Ls}$) $\omega=020^\circ\text{W}$ のDTy氏の像では、ノウウス・モンズの西端が伸びた形になっていて、明部があるようだが、暫く、色彩の分離が悪く、何處までノウウス・モンズかは明確でない。ノウウス・モンズの先端は $\Omega=333^\circ\text{W}$ を越えない筈である。2003年の同時期18Sept($\lambda=263^\circ\text{Ls}$)2003の熊森(Km)氏の $\omega=332^\circ\text{W}$ 、岡野(Ok)氏の $\omega=333^\circ\text{W}$ をみると、ノウウス・モンズの先に似た明部があるようだが、本體との差は歴然である。RHf氏の21July($\lambda=254^\circ\text{Ls}$) $\omega=011^\circ\text{W}$ を診ると、既にノウウス・モンズに發する黄塵が先端から反時計回りに少し立っていたということかも知れない。9Aug($\lambda=265^\circ\text{Ls}$) $\omega=320^\circ\text{W}$ のペリエ(CPI)氏像によると、Bには全く出ていないので、水蒸気ではあるまいと思う。10Aug($\lambda=266^\circ\text{Ls}$)のDTy氏の $\omega=307^\circ\text{W}$ 、DPc氏の $\omega=310^\circ\text{W}$ では漸く分離しているかと思う。アンダーソン(DAd)氏の12Aug($\lambda=267^\circ\text{Ls}$) $\omega=007^\circ\text{W}$ 、 014°W 、ディッキンソン(WDc)氏の13Aug($\lambda=268^\circ\text{Ls}$) $\omega=204^\circ\text{W}$ には夕方の姿が出ている。チャヴェス(RCv)氏の15Aug($\lambda=269^\circ\text{Ls}$) $\omega=356^\circ\text{W}$ 邊りが最後かと思う。

テュレス・モンズは2003年時には南極冠が $\lambda=235^\circ\text{Ls}$ 邊りから偏芯し始めて以降、 $\lambda=254^\circ\text{Ls}$ 邊り迄明白に確認できたのだが、今回はccdでも明確なものは出ていない。2003年の最終段階の様子はCMO #289 Report #14で傳えた通り、1Sept($\lambda=252^\circ\text{Ls}$)2003、2Sept($\lambda=253^\circ\text{Ls}$)2003のアジア・オセアニアの影像には「吹き出し」も含めて幾つも出ている。今回はヨーロッパ側にあり、16July($\lambda=250^\circ\text{Ls}$)のDPc氏の $\omega=178^\circ\text{W}$ 、 183°W 、CPI氏の $\omega=174^\circ\text{W}$ 、 185°W などが相當するが、明確ではない。DTy氏の18July($\lambda=251^\circ\text{Ls}$) $\omega=157^\circ\text{W}$ も含めて、最終段階はDPc氏の21July($\lambda=253^\circ\text{Ls}$) $\omega=132^\circ\text{W}$ 等が相當し、幾らか出ているかと思うが、像が悪くてどうしようもない。アメリカのDPk氏の29July($\lambda=259^\circ\text{Ls}$) $\omega=138^\circ\text{W}$ は良像だが、時期が遅い。

リマ・アングスタは残留するヒュペルノティウス・モンズと早めに消えるアルゲンテウス・モンズを裂く南極冠内の暗帯だが、RHf氏の18July($\lambda=252^\circ\text{Ls}$) $\omega=030^\circ\text{W}$ 、 044°W に検出された。ヨーロッパに移って、DPc氏の30July($\lambda=259^\circ\text{Ls}$) $\omega=041^\circ\text{W}$ 、2Aug($\lambda=261^\circ\text{Ls}$) $\omega=017^\circ\text{W}$ 、美國に移って、4Aug($\lambda=263^\circ\text{Ls}$)には唐那・派克(DPk)氏の $\omega=068^\circ\text{W}$ 、 081°W 、 085°W 、テータム(RTm)氏の $\omega=070^\circ\text{W}$ 、 076°W 、ウォーカー(SWk)氏の $\omega=072^\circ\text{W}$ などに出ている。この風景は2003年にも好いccd像が無いのだが、同時期のものとしては1988年の筆者の描寫(25Aug1988($\lambda=259^\circ\text{Ls}$) $\omega=065^\circ\text{W}$)が"*Sky Watchers Handbook, The Expert Reference Source for the Amateur Astronomer*" (Ed. J MUIRDEN, W H Freeman, 1993)に出ているので参照されたい。アルゲンテウス・モンズの方向が輝きを失って来る様子はEGf氏の3Aug($\lambda=262^\circ\text{Ls}$) $\omega=120^\circ\text{W}$ が好く示す。

南半球高緯度黄塵：極冠の溶解に伴いクリティカルな極冠の周りで小黄塵が立つことは好く知られ

ている。2003年には南極冠の速く消え去った部分に $\lambda=244^\circ\text{Ls}$ (19Aug2003)に黄塵が立っているのをブダ(SBd)氏が撮像し、 $\lambda=252^\circ\text{Ls}$ 頃まで追跡されたが、今回も似たような黄塵がDPk氏の22July($\lambda=254^\circ\text{Ls}$) $\omega=212^\circ\text{W}$ 、 220°W に立っているように見える。これはEGf氏の25July($\lambda=256^\circ\text{Ls}$) $\omega=207^\circ\text{W}$ 、26July($\lambda=257^\circ\text{Ls}$) $\omega=195^\circ\text{W}$ にも出ている。日本からは31July邊りからこの邊りが見え始め、高緯度夕方の残留物か黄塵が強いと観察したが、3Aug($\lambda=000^\circ\text{Ls}$)には筆者の場合 $\omega=195^\circ\text{W}$ 、 205°W 、 214°W 、 224°W など(中島(Nj)氏の場合その中間値)で南極冠の周りの相当明るい様子を、特記している。但し、南極冠は明確で、黄塵は動きがあっても東西方向に限られているかも知れない。 $\omega=253^\circ\text{W}$ ではこの部分は西に去って、ノウス・モンスとは聯結していない。4Aug($\lambda=263^\circ\text{Ls}$)には $\omega=204^\circ\text{W}$ でRHf氏、 $\omega=226^\circ$ でヴァリンベルティ(MVI)氏、 $\omega=243^\circ\text{W}$ でSBd氏が撮像したが、これらの像でもこの黄塵は東西に伸びているように見える。森田(Mo)氏が5Aug($\lambda=263^\circ\text{Ls}$) $\omega=200^\circ\text{W}$ 、 204°W 、 209°W 、 218°W 、 228°W 、 231°W で撮っているのが範囲が分かる。柚木(Yn)氏の6Aug($\lambda=264^\circ\text{Ls}$) $\omega=193^\circ\text{W}$ 、 200°W 、 206°W 、 211°W では処理方法にも因ろうが、強く出ている。これはヨーロッパに移って、カッレル(MKr)氏の13Aug($\lambda=268^\circ\text{Ls}$) $\omega=260^\circ\text{W}$ には夕方に片鱗が見えているが、15Aug($\lambda=269^\circ\text{Ls}$)のDPc氏の $\omega=250^\circ\text{W}$ 、DTy氏の $\omega=252^\circ\text{W}$ では可成り見えるようになっている。

テュレス・モンスの崩壊後にもその北側で黄塵の立つことが期待された、崩壊の様子は捉えられなかったから、難しいがDTy氏の18July($\lambda=251^\circ\text{Ls}$) $\omega=157^\circ\text{W}$ は興味深い。DPk氏の29July($\lambda=259^\circ\text{Ls}$) $\omega=138^\circ\text{W}$ 、EGf氏の2Aug($\lambda=261^\circ\text{Ls}$) $\omega=122^\circ\text{W}$ はその後の様子を傳えている。さほどの発展は無いようである。

一方、南極冠からソリス・ラクスの方向に掛けて立った擾亂は今回は稍複雑である。南極冠からの吹き出しの走りはRHf氏の18July($\lambda=252^\circ\text{Ls}$) $\omega=030^\circ\text{W}$ 、 041°W に出ていると思う。(筆者は17Julyの観測には $\omega=027^\circ\text{W}$ で縁にヘーズを見ているが、最後の $\omega=046^\circ\text{W}$ では記録がない。17JulyのYn氏の $\omega=048^\circ\text{W}$ でもディア邊りが明るい、飛び出しの記録はない。19Julyは $\omega=019^\circ\text{W}$ まで観測して、縁に明部を見ているが、區別は附かない。20JulyのNj氏は雲を透かして $\omega=005^\circ\text{W}$ 迄)。RHf氏の21July($\lambda=254^\circ\text{Ls}$) $\omega=011^\circ\text{W}$ にも見られ、ゴーストでなければ同じものである。30July($\lambda=259^\circ\text{Ls}$)になって、DTy氏の $\omega=038^\circ\text{W}$ に黄塵らしい像が出て、同じくDPc氏の $\omega=041^\circ\text{W}$ には稍違った形だが、何か出ている。2Aug($\lambda=261^\circ\text{Ls}$)には多くの像が得られ、DPc氏の $\omega=017^\circ\text{W}$ 、DTy氏の $\omega=020^\circ\text{W}$ 、CPI氏の $\omega=021^\circ\text{W}$ は朝方の影像、DPk氏の $\omega=084^\circ\text{W}$ 、 094°W は正面での影像、EGf氏の $\omega=122^\circ\text{W}$ は夕方の影像を與えている。正面影像に依る様子は特別に変わった事もないとも言えるが、日變化をしているであろうからこの日の記録は貴重である。3Aug($\lambda=262^\circ\text{Ls}$)にはSWk氏の $\omega=075^\circ\text{W}$ 、 080°W 、WDc氏の $\omega=093^\circ\text{W}$ 、RCv氏の $\omega=097^\circ\text{W}$ 、DAd氏の $\omega=098^\circ\text{W}$ にそれなりの描寫があり、4Aug($\lambda=263^\circ\text{Ls}$)にはDPk氏の $\omega=068^\circ\text{W}$ 、 081°W 、 085°W 、RTm氏の $\omega=070^\circ\text{W}$ 、 076°W 、SWk氏の $\omega=072^\circ\text{W}$ 、DAd氏の $\omega=091^\circ\text{W}$ 、メリッロ(FMI)氏の $\omega=096^\circ\text{W}$ 、それにムーア(DMr)氏の $\omega=119^\circ\text{W}$ 、 128°W がある。特にDMr氏は西部にあって、最後を捉えるので重要だが、これには夕方の水蒸氣が浮いているようである。この擾亂はその後も見られ、6Aug($\lambda=264^\circ\text{Ls}$)にはDPk氏の $\omega=056^\circ\text{W}$ 、 059°W 、 066°W 、 069°W 、7Aug($\lambda=264^\circ\text{Ls}$)にはEGf氏の $\omega=070^\circ\text{W}$ 、8Aug($\lambda=265^\circ\text{Ls}$)には同じくEGf氏の $\omega=071^\circ\text{W}$ 、11Aug($\lambda=267^\circ\text{Ls}$)にはDMr氏の $\omega=051^\circ\text{W}$ 、 059°W 、12Aug($\lambda=267^\circ\text{Ls}$)にはDAd氏の $\omega=007^\circ\text{W}$ 、 014°W 、13Aug($\lambda=268^\circ\text{Ls}$)にはRCv氏の $\omega=025^\circ\text{W}$ などに記録されている。描寫、描寫力、処理方法はそれぞれ違い、擾亂についてはもう少し調べなければならない。

アルギュレからノアキス：ノアキスからアルギュレに掛けては2003年の最接近時には特徴のない圖柄であったが、2003年の十二月黄雲(CMO#285)で一度洗禮を受けている。今回、Mo氏の22July($\lambda=254^\circ\text{Ls}$) $\omega=344^\circ\text{W}$ 、 354°W 、 003°W の圖柄を見るとアルギュレからノアキスに向けて明部がfalloutで強くなっているようで、更にDTy氏の6Aug($\lambda=263^\circ\text{Ls}$) $\omega=348^\circ\text{W}$ はその全貌を見せている。このルートは1956年の大黃雲がノアキスからアルギュレ、そして南極地方に伸びた道である(30Aug1956の南アフリカでのフィンセンやスライファーなどの写真)。

アルシア雲：アルシアの山岳雲は $\lambda=200^\circ\text{Ls}$ 以降衰える傾向があるが、一旦極小に来て、そろそろ第

二のピークに向けて活動的になっているかも知れない。22July($\lambda=254^\circ\text{Ls}$) $\omega=117^\circ\text{W}$ でDPc氏がB光で検出し、DPk氏が29July($\lambda=259^\circ\text{Ls}$) $\omega=138^\circ\text{W}$ 、 144°W (B像は $\omega=137^\circ\text{W}$ 、 142°W)で確認している。更に、DMr氏の4Aug($\lambda=262^\circ\text{Ls}$) $\omega=120^\circ\text{W}$ 、 127°W (B像)に明白である。但し、EGf氏の1Aug($\lambda=261^\circ\text{Ls}$) $\omega=139^\circ\text{W}$ のBでは顕れていない。技術的な違いの他に、アルシア白雲の増幅減衰はオリュムプス・モンスの白雲に比べて大きいという問題がある。尚、DMr氏の場合、 $i=47^\circ$ であるから、 $\omega=120^\circ\text{W}$ の場合はアルシア・モンスは南中だが、夕縁から 47° つまり、日没からほぼ2時間45分前($47/15=2:45$)ということになる。

バーナードの観測：もう一点、アルシア・モンスに附随する話題として1894年のバーナード(Edward E BARNARD)の26Augustのスケッチ(既にCMO#264-25Sept2002號p3436に掲載)に関するものがある。いまから111年前このスケッチでバーナードはオリュムプス・モンスを暗点として明確に描がいた。その他にその南にもう一つ暗点があるが、1)これはアルシア・モンスか、2)もしそうなら、時期的に山岳雲は観察されているか、3)もし雲がないのなら、(光量削減のため)長波長のフィルターを使った可能性があるか、4)そうではなく、実際には白雲は存在しなかったか、5)では、白雲をキャンセルするような淡い黄雲が漂っていた可能性は無いのか、6)或いはこの暗斑はアルシアではなく、ポエニクス・ラクスであって、アルシアはその右に描かれている淡い暗斑に相当するか、といったような問題が派生する。モンスが暗点に見えるのは、a)表面が黄雲に覆われてモンスがその上に顔を出すとき、あるいは今回のようにb)位相角 i が大きく蔭が出る時である。 i が小さい場合は、白雲が無くても、衝効果で明るく輝く。1990年の場合がこれであった。扱て、寡聞にして十九世紀の火星暦は持たないが、26Aug 1894の季節は $\lambda=267^\circ\text{Ls}\sim 270^\circ\text{Ls}$ と考えてよい。ローエルが南半球の夏至を31Aug(或いは1Septとしている、時計に因ろう)としているのと、よく似た1973年の場合を参照すると26Augは $\lambda=270^\circ\text{Ls}$ なのである。 $\lambda=267^\circ\text{Ls}\sim 270^\circ\text{Ls}$ は今年の場合、11Augから17Augの範囲に入り、而も日本からアルシアの領域が視界に入るのである。既に中島(Nj)氏や筆者は、7Aug($\lambda=265^\circ\text{Ls}$) $\omega=147^\circ\text{W}$ (Mn)、 $\omega=152^\circ\text{W}$ (Nj)、 156°W (Mn)、8Aug $\omega=142^\circ\text{W}$ (Nj)、10Aug $\omega=133^\circ\text{W}$ 、 142°W (どちらもともNj氏)などでオリュムプス・モンスを20cmで暗点として捉えているので、問題の時機の精査観測を可能と考えたが、然し、本土の方は天候に問題があった。ご承知の如く盆前後は宜しくなかったのである。そこで沖縄の宮崎勲(My)氏に観測を依頼し、ToUcamで撮って貰ったのが13Aug($\lambda=268^\circ\text{Ls}$) $\omega=146^\circ\text{W}$ と $\omega=155^\circ\text{W}$ の像である(Galleryを見られたい)。 $i=46^\circ$ であるから、ターミネータから $90-(146-120)-46=18^\circ$ 程、一時間強である。一方バーナードの場合は、 ω も分からないが、矢張り見掛けから $\omega=145^\circ\text{W}$ を採り、 i は1973年の例に倣うと 40° であるから(ローエルに依ると、位相角は1894年は六月に最大 47° になったとあるから、今年と一致する。その他、1973年に倣うと八月末は ϕ は 16°S でこれも今年と一致する)、夕縁から 25° となり、My氏の ω は半時間ほど遅かったかといったところである。しかし、チャンネルに分解してみるとB成分にアルシアには稍雲が顕れている他、山頂は暗点の様である。実は、依頼と前後して、Yn氏から11Aug($\lambda=267^\circ\text{Ls}$)の観測として $\omega=120^\circ\text{W}$ 、 132°W 、 137°W 、 143°W 、 147°W 、 155°W の影像が届いた。B光の $\omega=133^\circ\text{W}$ 、 138°W 、 143°W には明確にアルシア雲が出ている。そして、アルシア・モンスそのものも暗点としてポエニクス・ラクスと共にRでは見えている。詳しくは追ってNoteで纏めるが、こうした機会は滅多に訪れない。1990年の場合は、 $\lambda=270^\circ\text{Ls}$ は $\delta=9.1''$ であった(i 、 ϕ は今年と同じ)。日本からこの領域は見えていたが、筆者にオリュムプス・モンス斑点が見えたのは $\lambda=272^\circ\text{Ls}$ の僅かの場合であった(20cm反射)。

ヘッラス：21July($\lambda=254^\circ\text{Ls}$)にウォーレン(JWn)氏の $\omega=227^\circ\text{W}$ やFMI氏の $\omega=230^\circ\text{W}$ で朝端のヘッラスが明るく出たために、黄雲だという噂が立ったのであるが、即座にペリエ(CPI)氏が、そんな筈はあるまいと、ヨーロッパは未だヘッラスに遠かったのであるが明解に否定した(22July-CMO#207p0132)。筆者は彼の"each time Hellas seemed to have only trapped dust without knowing any storm inside"というのには感心してしまった。ヘッラスから黄雲が出てくるなどというのは筆者も見ることがない。ヘッラスと黄雲とを結びつけるのは美國神話に過ぎないのである。尤もCPI氏のご託宣の後もなかなか新人は納得出来ない様であるが、実は2003年の例えばCMO-Galleryで i の大きいMay2003等を見れば、ヘッラスが

明るく出ている事が読みとれるのであって、要するにヘッラスは盆地であるから、 i が大きいと却って壁面が衝効果の如き働きで明るくなるに過ぎない。ただ、2003年には i は五月に最大になり、然し 43° 迄しか行かなかつたから、今回より浅いのであるが、マイルドな処理をするVMI氏の5May2003($\lambda=180^\circ\text{Ls}$, $i=43^\circ$) $\omega=234^\circ\text{W}$ でさえ出ている。1990年には今回と同じく $i=47^\circ$ 迄行ったから、七月の中旬($\delta=8.5''$, $\phi=18^\circ\text{S}$)や八月の後半(δ は $10.4''$ 程度、 ϕ は 10°S , $i=46^\circ$ に落ちていた)には朝端の明るいヘッラスは日本から終始見えていた。また浮遊黄塵があるから明るいのだというのも間違っている。何度も引用するレイトンの24Aug1956($\lambda=249^\circ\text{Ls}$)のヘッラス西端の見事なコダクローム写真にはヘッラスは然程明るくは写っていない。既に20Aug($\lambda=246^\circ\text{Ls}$)發現のノアキス大黃雲が残留黄塵となり、當然ヘッラスの方に浮遊黄塵が来ているにも拘わらずである。この時点での i は 16° であって、角度が今回と違うことが大きいのである。實は浮遊黄塵は i のナンゴの時に縁で輝くか、理論値があるのであるが、失念した。 47° でも 16° でもなくその中間邊りだったと思う。明るいヘッラスが朝縁で長く続くのは黄雲ではないからであって、單に i の動きが鈍いからである。尚、當時ノアキスは美國側から見えず、ノアキスの動向は向こうでは不知道であつたろうが、福井では注視していた。ヘッラスの西でも黄雲が出ていないことは明白であつたのである。このことはファサードでそれとなくヘッラス黄塵否定の意味で述べた。

ヘッラスは中央附近では鈍くなり、夕方では白霧に覆われることは1990年と同じである。筆者の八月に入ってからの觀察では、朝方のヘッラスはクリーム色である。O56では南極冠と北極雲の明るさに負け、白ではない。R60では北極雲と似てくる(3Aug($\lambda=262^\circ\text{Ls}$) $\omega=224^\circ\text{W}$ など)。

エリダニアの明斑：DPk氏の22July($\lambda=254^\circ\text{Ls}$) $\omega=212^\circ\text{W}$ 、24July($\lambda=255^\circ\text{Ls}$) $\omega=192^\circ\text{W}$ にはエリダニアとアウソニアの一部に黄塵が立った様に明部が見えている。これは、同じ24July($\lambda=255^\circ\text{Ls}$)のFMI氏の $\omega=203^\circ\text{W}$ に出ているほか、幾つかの影像があり、28July($\lambda=258^\circ\text{Ls}$)のDMr氏の $\omega=187^\circ\text{W}$ にも明瞭である。ただ動きがあるようには見えない。更に、Mo氏の5Aug($\lambda=263^\circ\text{Ls}$) $\omega=200^\circ\text{W}$ 、 204°W にも出ている。元に戻って、EGf氏の25July($\lambda=256^\circ\text{Ls}$) $\omega=201^\circ\text{W}$ を見ると、確かに明るいのがこれは黄塵の形というより、いつもの明るさではないかという気がしてくる。地面反射の影響を考慮して、 i の大きいときの $\omega=200^\circ\text{W}$ 邊りを矢張り例えば2003年の例で調べてみると30May2003($\lambda=194^\circ\text{Ls}$) $\omega=215^\circ\text{W}$ のDPk氏のccd像は好い例でこの部位が明るく出ている。實は、 i に關係無くその後殆どの場合同じ部位は明るい事が判る。亂反射に依るからであろう。六月には18June2003($\lambda=206^\circ\text{Ls}$, $i=40^\circ$) $\omega=205^\circ\text{W}$ のENg氏の像も同じである。七月の8July2003($\lambda=218^\circ\text{Ls}$, $i=35^\circ$) $\omega=202^\circ\text{W}$ のDPk氏の像にも出ている。ずっと跳んで日射方向の逆向きになった25Nov2003($\lambda=305^\circ\text{Ls}$) $\omega=220^\circ\text{W}$ のDPk氏の像にも出ている。

注意：位相角 i について、なかなかその重要性が分かって貰えないが、オリュムプス・モンズなどの傑出した模様でなくても、衝前後の i の大きいときの細かな暗色模様の見え方などは衝頃とは相當違う場合があるのである。火星圖ではこの点にも注意する必要があるが、巷間に流れるシミュレーションと稱するものが、 i の動きに對應していないことは明らかである。

♂.....In the next issue we shall review the observations made during the period from 16 August ($\lambda=270^\circ\text{Ls}$, $\delta=12.5''$) to 15 September 2005 ($\lambda=289^\circ\text{Ls}$, $\delta=15.9''$).

南 政 次 Masatsugu MINAMI

Forthcoming 2005 Mars (10)

Ephemeris for the Observation of the 2005 Mars. VI

September and October 2005

Masami MURAKAMI

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◆As a sequel to Part V in #306 where the *Ephemeris* for July and August 2005 was listed, here is given the *Ephemeris* for September and October. The data are listed for every day at 00:00 GMT (not TDT). ω resp

denotes the longitude resp latitude of the sub-Earth point. The symbols λ , δ and ι stand for the areocentric longitude of the Sun, the apparent diameter and the phase

angle respectively. The apparent declination of the planet is also given. The data are based on *The Astronomical Almanac for the Year 2005*.

Date (00:00GMT)	ω	ϕ	λ	δ	ι	Declination
01 Sept 2005	039.56°W	12.9°S	279.70°Ls	14.14"	42.3°	+14°19'
02 Sept 2005	030.12°W	12.7°S	280.32°Ls	14.24"	42.1°	+14°25'
03 Sept 2005	020.67°W	12.6°S	280.94°Ls	14.35"	41.8°	+14°32'
04 Sept 2005	011.24°W	12.5°S	281.56°Ls	14.47"	41.5°	+14°38'
05 Sept 2005	001.82°W	12.4°S	282.18°Ls	14.58"	41.2°	+14°44'
06 Sept 2005	352.41°W	12.3°S	282.80°Ls	14.70"	40.9°	+14°50'
07 Sept 2005	343.00°W	12.1°S	283.42°Ls	14.81"	40.6°	+14°56'
08 Sept 2005	333.61°W	12.0°S	284.04°Ls	14.98"	40.3°	+15°01'
09 Sept 2005	324.23°W	11.9°S	284.66°Ls	15.05"	40.0°	+15°07'
10 Sept 2005	314.85°W	11.8°S	285.27°Ls	15.17"	39.6°	+15°12'
11 Sept 2005	305.48°W	11.7°S	285.89°Ls	15.29"	39.3°	+15°17'
12 Sept 2005	296.13°W	11.6°S	286.51°Ls	15.41"	39.0°	+15°22'
13 Sept 2005	286.78°W	11.6°S	287.12°Ls	15.54"	38.6°	+15°27'
14 Sept 2005	277.45°W	11.5°S	287.74°Ls	15.66"	38.3°	+15°32'
15 Sept 2005	268.12°W	11.4°S	288.35°Ls	15.78"	37.9°	+15°36'
16 Sept 2005	258.80°W	11.3°S	288.96°Ls	15.91"	37.5°	+15°41'
17 Sept 2005	249.51°W	11.3°S	289.57°Ls	16.03"	37.1°	+15°45'
18 Sept 2005	240.21°W	11.2°S	290.18°Ls	16.16"	36.7°	+15°49'
19 Sept 2005	230.93°W	11.1°S	290.79°Ls	16.28"	36.3°	+15°53'
20 Sept 2005	221.67°W	11.1°S	291.40°Ls	16.41"	35.8°	+15°57'
21 Sept 2005	212.41°W	11.0°S	292.01°Ls	16.54"	35.4°	+16°00'
22 Sept 2005	203.17°W	11.0°S	292.62°Ls	16.66"	34.9°	+16°04'
23 Sept 2005	193.93°W	11.0°S	293.23°Ls	16.79"	34.4°	+16°07'
24 Sept 2005	184.72°W	10.9°S	293.84°Ls	16.92"	33.9°	+16°10'
25 Sept 2005	175.51°W	10.9°S	294.44°Ls	17.05"	33.4°	+16°13'
26 Sept 2005	166.31°W	10.9°S	295.05°Ls	17.18"	32.9°	+16°16'
27 Sept 2005	157.12°W	10.9°S	295.65°Ls	17.31"	32.4°	+16°19'
28 Sept 2005	147.96°W	10.9°S	296.25°Ls	17.44"	31.9°	+16°21'
29 Sept 2005	138.80°W	10.9°S	296.86°Ls	17.57"	31.3°	+16°24'
30 Sept 2005	129.64°W	10.9°S	297.46°Ls	17.70"	30.8°	+16°26'
01 Oct 2005	120.51°W	10.9°S	298.06°Ls	17.83"	30.2°	+16°28'
02 Oct 2005	111.40°W	11.0°S	298.66°Ls	17.96"	29.6°	+16°30'
03 Oct 2005	102.30°W	11.0°S	299.26°Ls	18.08"	29.0°	+16°31'
04 Oct 2005	093.21°W	11.0°S	299.86°Ls	18.21"	28.3°	+16°33'
05 Oct 2005	084.12°W	11.1°S	300.46°Ls	18.33"	27.7°	+16°34'
06 Oct 2005	075.07°W	11.1°S	301.06°Ls	18.45"	27.0°	+16°35'
07 Oct 2005	066.02°W	11.2°S	301.65°Ls	18.57"	26.4°	+16°36'

Date (00:00GMT)			ω	φ	λ	δ	ι	Declination
08	Oct	2005	056.98°W	11.3°S	302.25°Ls	18.68"	25.7°	+16°37'
09	Oct	2005	047.94°W	11.3°S	302.84°Ls	18.80"	25.0°	+16°38'
10	Oct	2005	038.94°W	11.4°S	303.43°Ls	18.91"	24.3°	+16°38'
11	Oct	2005	029.94°W	11.5°S	304.03°Ls	19.01"	23.6°	+16°39'
12	Oct	2005	020.95°W	11.6°S	304.62°Ls	19.12"	22.8°	+16°39'
13	Oct	2005	011.97°W	11.7°S	305.21°Ls	19.22"	22.1°	+16°39'
14	Oct	2005	003.01°W	11.8°S	305.80°Ls	19.31"	21.3°	+16°39'
15	Oct	2005	354.07°W	11.9°S	306.39°Ls	19.41"	20.6°	+16°39'
16	Oct	2005	345.12°W	12.0°S	306.98°Ls	19.50"	19.8°	+16°38'
17	Oct	2005	336.20°W	12.2°S	307.57°Ls	19.59"	19.0°	+16°38'
18	Oct	2005	327.30°W	12.3°S	308.16°Ls	19.66"	18.2°	+16°37'
19	Oct	2005	318.39°W	12.4°S	308.74°Ls	19.74"	17.4°	+16°36'
20	Oct	2005	309.51°W	12.6°S	309.33°Ls	19.81"	16.5°	+16°35'
21	Oct	2005	300.62°W	12.7°S	309.91°Ls	19.88"	15.7°	+16°34'
22	Oct	2005	291.76°W	12.9°S	310.49°Ls	19.93"	14.8°	+16°32'
23	Oct	2005	282.89°W	13.0°S	311.08°Ls	19.98"	14.0°	+16°31'
24	Oct	2005	274.05°W	13.2°S	311.66°Ls	20.03"	13.1°	+16°29'
25	Oct	2005	265.20°W	13.4°S	312.24°Ls	20.08"	12.2°	+16°28'
26	Oct	2005	256.37°W	13.5°S	312.82°Ls	20.11"	11.3°	+16°26'
27	Oct	2005	247.54°W	13.7°S	313.40°Ls	20.13"	10.4°	+16°24'
28	Oct	2005	238.71°W	13.9°S	313.97°Ls	20.16"	09.5°	+16°21'
29	Oct	2005	229.91°W	14.1°S	314.55°Ls	20.18"	08.6°	+16°19'
30	Oct	2005	221.09°W	14.2°S	315.13°Ls	20.17"	07.7°	+16°17'
31	Oct	2005	212.29°W	14.4°S	315.70°Ls	20.17"	06.8°	+16°14'
01	Nov	2005	203.50°W	14.6°S	316.28°Ls	20.16"	05.9°	+16°12'
02	Nov	2005	194.71°W	14.8°S	316.85°Ls	20.15"	05.0°	+16°09'

便り

Letters to the Editor

●.....Date: Mon, 25 July 2005 01:37:44 +0900
Subject: Mo22July_05

梅雨が明けてから毎日が晴れで19日～22日まで撮ってはいましたが、今度は会務が忙しく、処理する時間も無くて大変です。とりあえず22日の物を処理できましたのでお送りします。

撮像時間は18:20～19:55GMTです。処理方法を少し変えてみました。

○.....Date: Wed, 27 July 2005 22:46:10 +0900
Subject: Mo25July_05 328°W

今朝も(26日 GMT)撮っていますが、雲が多く露出が多いのであまり期待できません。処理したのは昨日のもので、この日も Seeing は、ぱっとしません何とか表面模様が出てくれました。 $\omega=328^\circ\text{W}$ も撮ってはいますがぼけぼけのため、 $\omega=329^\circ\text{W}$ をお送りします。時刻は19:28GMTです。また、処理が済み次第お送りします。

○.....Date: Sat, 6 Aug 2005 00:51:54 +0900
Subject: Re: 至急・観測依頼

メール有難うございました。広島は今現在は曇りで、晴れるかどうかわかりませんが、出来るだけ待機しています。

8月3日 GMTにご指摘の ω を撮っていますのでお送りします。今はなかなか時間がとれず、送る

のが遅れていますが、出来るだけお送りしようと努力はしています。では、又。

○·····*Date: Wed, 10 Aug 2005 01:20:11 +0900*
Subject: Re: 緊急お訊ね

シーハンさんのFWメールは異常なく届いています。05Augが終わりましたのでお送りします。全部の像を合成、処理しています。これも遅くなりましたが、今度は少しはましな像になるように処理したつもりです。7日も撮っていますので、また、送ります。

○·····*Date: Thu, 11 Aug 2005 01:25:48 +0900*
Subject: Mo07Aug_05

07Augが出来ましたので、お送りします。Seeingは4-5/10で大してよくはありませんでしたが、高度が高くなるにつれ良くなってきたようです。

森田 行雄 (Yukio MORITA 廿日市 Hiroshima)

●·····*Date: Sun, 24 July 2005 21:07:57 +0000*
Subject: Mars Images

Hi All, I have attached some Mars images from 22 July. Hellas bright in red and green, but no overt motion detected. Best,

○·····*Date: Tue, 26 July 2005 18:31:33 +0000*
From: Donald Parker <park3232@bellsouth.net>
To: dpeach_78@yahoo.co.uk
Cc: vzv03210@nifty.ne.jp, RMckim5374@aol.com, Schmude@gdn.edu
Subject: Orographics

Hi Damian, VERY nice shot of Arsia. That seems to one volcano that displays orographis at around this Ls. I have attached an animated GIF file from Aug, 2003 showing the Arsia cloud brightening with rotation from local noon to sunset. The Ls was 242 degrees.

Dan Joyce is visiting -- he made a new 16-inch mirror for me and we had a tune-up last night. The scope seems to work well. Uranus kept a nice disk at 1600x. Will try to image it tonight. We looked at Mars, but were unable to see any orographics through a W-47 filter at 625x. The CM was 125-129 degrees. The altitude was only 25 degrees, and I was too tired to stay up to image it. Getting old! Best,

○·····*Date: Thu, 11 Aug 2005 00:07:15 +0000*
Subject: Out of Town

Hi All, I will be out of town until Monday, 15 August and will therefore be unable to read my e-mail. Best,

○·····*Date: Sun, 21 Aug 2005 20:14:23 +0000*
Subject: Mars Images

Hi All, I have attached some Mars images from 20 August. Christmas Eve on Mars! Best,

Don PARKER (唐那・派克 Miami, FL 美)

●·····*Date: Mon, 25 July 2005 20:05:42 +0900*
Subject: Novus Mons - 2005/07/24 19:05 - 19:53 UT

Dear CMO, Hello, Some images showing Novus Mons, though imaged in poor transparency & seeing. Was lucky to get a cloud break before the typhoon arrives. Still working on the proper white balance setting with the Lumenera. *The third image is from 19:49 UT, CM = 343. Novus Mons is a little clearer, so just an extra image for confirmation purposes. ····Best regards,

○·····*Date: Thu, 28 July 2005 20:14:08 +0900*
Subject: Hellas basin and Novus Mons - 2005/07/28

Comments: Novus Mons can be seen in each image, NPC is blue with clouds. Best regards,

○·····*Date: Tue, 9 Aug 2005 13:15:52 +0900*
Subject: RE: White haze??

Thank you very much for your response, Masatsugu!! I know you are very busy these days. As you know, I have a great passion for Mars now, but unfortunately there are few experts such as yourself with whom I can talk about such matters. Anyway, I appreciate your help very much. Thank you.

○·····*Date: Fri, 19 Aug 2005 09:05:50 +0900*
Subject: Solis Lacus and a few volcanoes -

Dear CMO, (hope you had a good O'bon holiday!)

An image from this morning: 2005/08/18 19:28 UT
 Comments: Solis Lacus can be seen in detail, Olympus Mons and several other volcanoes can be seen in the image. Best regards,

○·····*Date: Sun, 21 Aug 2005 06:45:55 +0900*
Subject: 2005/08/19 19.39

CMO, Comments: Solis Lacus, and the volcano area below it can be seen (inset is a more heavily processed version of the volcanoes). Possible clouds over Argyre (?). Best regards,

ロブ・ヘフナー(Robert HEFFNER 名古屋 Aichi)

●·····*Date: Mon, 25 July 2005 09:19:59 -0500*
Subject: ASO Mars, July 25

Our first attempt at Mars after two months of hazy skies. For those not having an attached image, you can access this on the ASO website from the homepage

<http://www.arksky.org/>

and clicking on the Planetary Patrol image archives for September 4

Clay SHERROD (クレイ・シェットロ ASO, AK 美)

●.....*Date: Mon, 25 July 2005 22:24:04 +0100*
Subject: Tharsis Orographics.

Hi Don, There was definatly a weak cloud near Arsia Mons on July 22nd. See attached blue image. A weak cloud is present near its location. This is the only image i have of the region so far. Its been solid cloud since the morning of the 22nd, though the area is still visible for the next several days.

I have copied this to Richard/Masatsugu also for thier interest. Best Wishes

○.....*Date: Sat, 30 July 2005 14:42:28 +0100*
Subject: Mars images (July 30th.)

Hi all, Cloud thwarted imaging litterally ~10mins after starting. Just enough time to capture something... Note the faint rift running through the SPC. Also Candor/Ophir appears quite bright. Argyre is also visible. Solis Lacus seems as though it is "spilt" down the middle. Juventae fons looks well defined, as does Agathadaemon.

Hopefully the weather will actually improve...poor recently... Best Wishes

○.....*Date: Mon, 8 Aug 2005 20:41:34 +0100*
Subject: Mars images (August 8th, 2005.)

Hi all, Despite these being my best so far this apparition, the seeing was poor - fair with a decidedly turbulent live image. Note the weak haze over Hellas, well seen in B. Also Sinus Meridiani is clearly showing its forked appearance. There also seems to be some SPC remnant near Novus Mons. Best Wishes

○.....*Date: Fri, 19 Aug 2005 21:19:45 +0100*
Subject: Mars images (August 17th, 2005 P1.)

Hi all, This was my best session to date. These are true RGB images. Hellas is bright on the morning limb.

A full sequence will follow soon containing full spectral data. Best Wishes

○.....*Date: Fri, 19 Aug 2005 23:50:02 +0100*
Subject: Mars images (August 17th, 2005 P2.)

Hi all, Mosting interesting is the B image. A bright Hellas, with a weak haze over Libya. The haze remains surrounding the SPC. A small but well seen cloud in the vicinity of Elysium is present, though as to wether it is

orographic in nature over Elysium Mons i cant say. The NPH has also become more prominent, even compared to the previous day. The colour images are true RGB images and present a colour very close to what i see visually. Best Wishes

○.....*Date: Wed, 24 Aug 2005 21:49:33 +0100*
Subject: Mars images (August 23rd.)

Hi all, Some interesting detail present in all filters. Red reveals Trivium-Cerberus as its now well known two dots appearance (also seen on the last presentation of this area in July.) Its, along with the dusky marking of Styx-Phlegra along with the dark Hyblaeus extension surround the entire Elysium area and looks like a light circular patch. The SPC can hardly be seen at all in Red at these longitudes. In Blue a morning limb haze from the south-er polar haze right down to a bright NPH. It is brightest across Eridania and Ausonia across Mare Cimmerium. Also note the condensations in the Valhalla marking, especially in B and G. Best Wishes

Damian PEACH (デミアン・ピーチ Buckinghamshire 英)

●.....*Date: Wed, 27 July 2005 16:37:35 +0100*
Subject: Mars june through July 05

Hi Guys, My friend Damian suggested I send you these Mars Images. I have some animations too if you would like them.

C11 @ f38 to f50 ATK-1HS 2 Mono Filters:- Trutek type 1 red (no IR block) and type 2 blue (with IR block)

I have now added you to my regular distribution list.

I am located just west of London.

Many thanks and Best wishes

○.....*Date: Thu, 4 Aug 2005 11:04:12 +0100*
Subject: Re: Mars Images (August 2nd.)

Hi Alan That's a nice set of images I like the extra sharpening on the top image, as it shows the variations in the dark areas too, I am a great fan of "if it is there try to show it" ! best wishes

○.....*Date: Mon, 8 Aug 2005 19:32:55 +0100*
Subject: Mars and Gamma Ari

Hi Guys, This is Mars from this morning seeing was poor to fair, with just a little more on screen contrast than yesterday.

I imaged *Gamma Ari* just before the Mars session this morning, on exactly the same set-up as Mars. The red

type 1Trutek filter was also used. 143 frames were hand selected from 2100 and processed in Registax.

The comparison is interesting and shows that Mars is currently little bigger than the separation of designated double stars. Best wishes

○·····*Date: Thu, 11 Aug 2005 17:48:10 +0100*
Subject: Mars 11th Aug

Hi Guys, Well we have had 5 clear dawns in a row. None with spectacular seeing, but clear nonetheless.

Trying to quantify the jitter and ripple seeing were are getting here, I would tentatively estimate that the "jitter" is Mars moving as a whole, approx 1.5arc secs in random directions, with a frequency of roughly 20 per second. The "ripple" shows the bright limb breaking sharpness at about the same rate and magnitude for about one eighth of its bright arc per "ripple". Its this sort of seeing I think gives us the dark line artefact about 1.5 arc" inside the bright limb. Just a thought, for what it's worth !

It was nice to see Syrtis Major in it's entirety, its been a while. Our best seeing this morning occurred about an hour earlier than usual with Mars at only 44 degrees alt. Best wishes

○·····*Date: Sun, 14 Aug 2005 21:26:25 +0100*
Subject: Mars Aug 14th

Hi Guys, We have now had 8 clear dawns in a row, well some required a bit of gap hunting. Seeing was mostly poor but I had a couple of lucky reds and used them as L with rgb and toucam colour mixed.

Sorry CMO just a pretty picture today. Best wishes

○·····*Date: Thu, 18 Aug 2005 23:29:03 +0100*
Subject: Mars 18th Aug.

Hi Guys, Well here is the 12th in a row, I don't think the weather will let 13 happen but, is that the other way round !! Spooky! This batch was with the rusty ToUcam. The red and blue were filtered in B & W mode, and the colour is a straight colour toucam shot, with no L.

○·····*Date: Wed, 24 Aug 2005 11:42:44 +0100*
Subject: Mars 24th Aug

Hi Guys, Cloud interrupted after one red filtered toucam and one coloured toucam shot this morning, so not much to chose from and only a handful of frames in the final image. Seeing poor with fast moving thin cloud.

There was this other object up there crying out for an image through the thin cloud C11 f10 touc with red filter.

C'mon don't tell me you wern't tempted ! Best wishes

○·····*Date: Wed, 24 Aug 2005 16:44:24 +0100*
Subject: Re: Mars 24th Aug

Well there you go David, spooky stuff, I didn't even choose it either, it was the first thing to drift onto the chip, I just thought that'll do for me, I just shot the one too ! I bet there are a few more out there.

----- Original Message -----

From: David Arditti
Sent: Wednesday, August 24, 2005 4:08 PM
Subject: Re: Mars 24th Aug

Dear Dave, This is sufficiently bizarre to be worth sharing with your whole list.

I imaged Mars and the Moon with my Toucam last night as well, and I only took one shot of the moon. There were hundreds of possible craters, so which did I choose?

Theophilus and Cyrillus, 2005 Aug. 24 00:42UT. Toucam Pro II in B&W mode, white light but IR blocked. 254mm D-K Cassegrain at f20.

David ARDITTI: *Composer and Conductor*
<http://www.davidarditti.co.uk>

David TYLER (デーヴ・タイラー Bkh 英)

●·····*Date: Wed, 27 July 2005 16:30:16 +0000*
Subject: 7-27-2005 mars

Attached is an image from this morning. Seeing was 8/10, transparency 4/5. I used 25.4 cm f/12 refl., 3× barlow, no filter, ToUcam Pro, Registax 3, Iris, and Photoshop Elements. I think Olympus Mons may be visible on the terminator. I know seeing was good as I imaged the rille in the alpine valley on the moon.

Randy TATUM (ランディ・テータム VA 美)

●·····*Date: Thu, 28 July 2005 09:40:23 -0700*
Subject: Image 27 July 2005

Attached is an image taken approximately 9:40 ut on 27 July 2005 through a 16" reflector at f/47. Information is on the Image.

○·····*Date: Fri, 12 Aug 2005 10:53:36 -0700*
Subject: RE:Images 11 August 2005

My observing site is about 15km southwest from Greenwood, SC, USA near the small town Bradley.

Seeing 5/10, transparency 5/10. I was able to observe the south polar region at very high magnification, (approx. 800-900×) and the SPC appears to be in 4 pieces with small points of ice cap just off the edge. No filter gave the best view.

David ANDERSON (デーヴ・アイド・アンダーソン SC 美)

●.....*Date: Thu, 28 July 2005 22:44:55 -0500*
Subject: Mars image 07282005

Gentlemen: My apologies for not sending any images for the last 2 weeks. I have been grinding a 6" mirror for a new telescope, and have been neglecting my CCD work. Please find my image from this morning taken during periods of cloud and very warm conditions. Mars appears very much larger in the eyepiece, but surface marking are still subtle. The SPC is shrinking rapidly.

I have decided to not add an IR channel to my images in an effort to make them appear closer to the view in the eyepiece. The IR channel seems to exaggerate surface contrast to the point of looking artificial. Good skies to all.

○.....*Date: Sat, 13 Aug 2005 18:16:42 -0500*
Subject: Bates Mars 08/13/2005

Dear Mars Observers: I hope you been spending many happy hours with the Red Planet. Very hot weather continues here, seeing is improving due to greater stability in the Gulf of Mexico. Enclosed image taken this morning, planet is a pale salmon color in the eyepiece, very brilliant, with light grey surface features. SPC is small, oval-shaped, and compact. Distinct white haze seen at North Polar Region. All the best,

Don BATES (ドナルド・ベイツ Houston, TX, USA)

●.....*Date: Fri, 29 July 2005 09:53:02 -0400*
Subject: Mars 7-29-05, 7:55 UT

Seeing was in and out, but managed to complete an experiment. I used my Canon Powershot A-85 digicam in AVI mode, and recorded six 30-second videos of Mars this morning. The good part: it works! No exposure control on this camera in movie mode, but its auto exposure was perfect. Even the color looked good. no wires or laptops necessary! the bad part: in movie mode, the camera groups (but not bins) pixels to make the 4 MP chip into a 640 × 480 "webcam". I needed a 5× Powermate, 2× barlow AND a 20mm EP to match the effective FL as the ToUcam with only a 5× Powermate.

Still, even this long imaging train was easier than tripping over wires and dragging a laptop out at 3:30 AM. Here are the results.

○.....*Date: Sun, 31 July 2005 19:11:20 -0400*
Subject: Re: RE:Mars 7-29-05, 7:55 UT

Hello Masatsugu, I'd be honored if you would upload

my images, and feel free to do so whenever I send them out.

○*Date: Thu, 18 Aug 2005 11:19:42 -0400*
Subject: Mars images 8-18

I think this is a good comparison between the Canon and ToUcam. The biggest advantage the ToUcam has is that I can remove the IR blocking filter and use an IR pass filter.

Sean WALKER (シヨン・ウォーカー Methuen, Ma 美)

●.....*Date: Fri, 29 July 2005 13:11:37 -0400*
Subject: FW: [richastro] Mars on 7-27-05

Dear Masatsugu, Bill Dickinson, a member of the Richmond Astronomical Society, has obtained the fine Mars image mentioned below. I wrote to him and encouraged him to send his work to the OAA Mars Section, to the ALPO and BAA also.

We are well, and I hope you are too. I am working evenings now, very busy for a theoretically retired old fellow. When Mars gets high in the sky around midnight, I should be able to do some old fashioned visual observing. Randy Tatum and John Barnett have already started to observe Mars.

Thank you for continuing to send the CMO. Best wishes,

○.....*Date: Tue, 02 Aug 2005 12:34:23 -0400*
Subject: RE: FW: [richastro] Mars on 7-27-05

Dear Masatsugu, You are very welcome for the forwarding of Bill's Mars image. I hope that he will send you more as he records them.

Tyler and David are out of school for the summer. Tyler has made some recovery from the problems he had after the death of my mother. David made very good grades, so his scholarship is secure for another semester.

A day or so after the recent terror attacks in London, a passer-by named Whitby was interviewed by a news-person on the street.

I doubt that you will be thought to be a terrorist. Precautions are now taken in regard to every traveler. As long as you do not carry contraband, weapons or potential weapons (and I know you will not), you will be OK.

Your trip to Lick seems like a wonderful idea. I trust that you will be made welcome on all fronts, and I wish you good health and fair weather for the journey.

Sam WHITBY (サム・ホイットビー VA 美)

●.....*Date: Thu, 28 July 2005 08:37:41 -0700*
Subject: Mars - July 28, 2005

Hey all: Seeing not quite as good this AM. Only used 63 images for Red and 72 for blue. I really like the monochrome ATK1HS camera. It delivers good stills.

○.....*Date: Sat, 30 July 2005 08:06:27 -0700*
Subject: Mars - 30 July, 2005

All: Like Damien's images earlier this morning, I to shot through a 10 minute hole in the clouds. The image was in a slow boil, changing constant shape. This resulted in slightly lower resolution images than in the past few days. Still, some interesting features may be seen.

○.....*Date: Thu, 4 Aug 2005 09:29:25 -0700*
Subject: Mars - August 04, 2005

All: Lots of rain in Phoenix the past few days, but the clouds parted last night to give very humid conditions for these images. Image was fairly steady, but individual still images still appeared a bit fuzzy. Seeing is funny that way.

Olympus Mons is showing well in these images as well as a touch of cloud over another volcano (not sure of the name off hand). It shows well in Blue. I am curious however, why it is showing so well in my images and not so much in other amateur images from the past several days. Also the North Polar Hood is showing well in the RGB image. Thanks

○.....*Date: Fri, 5 Aug 2005 08:34:10 -0700*
Subject: Re: RE:Mars - August 04, 2005

Masatsugu: I am pleased that my equipment and conditions were right to detect the cloud over Arsia Mons. Thanks you for the detailed discussion on this subject. Very interesting.

I fear that if I was still using the the TouCam on Mars I would not have detected it. The ATK1HS camera is performing better than I expected. Mars being far higher in my sky has helped a lot too! Thanks

○.....*Date: Thu, 11 Aug 2005 21:27:29 -0700*
Subject: Mars - August 11, 2005

All: After a week of monsoons, it was partly cloudy with cirrus. Images were fuzzy again, but fairly steady. Only fair images. Thanks

○.....*Date: Thu, 18 Aug 2005 11:59:50 -0700*
Subject: Mars - August 18, 2005

All: Seeing began very poor, but improved enough to get a few images later. I note a large increase in the

brightness and scope of the NPH in the past 48 hours.

○.....*Date: Sun, 21 Aug 2005 19:48:12 -0700*

All: The humidity has left Phoenix temporarily, leaving transparent skies, dry air, and bouncy seeing. There are reports of dust in Hellas, but I cannot confirm. Looks clear and transparent to me. NPH is less bright than 72 hours ago. Thanks

David MOORE (デーヴ・ムーア Phoenix, AZ 美)

●.....*Date: Sun, 31 July 2005 11:32:32 -0600*
Subject: Mars, 2005-07-31; CM = 153.8

Attached is my first Mars contribution for the year. Seeing was unusually good through an opening in the clouds.

Tom WILLIAMSON (トム・ウィリアムソン NM美)

●.....*Sent: Tuesday, August 02, 2005 11:07 AM*
Subject: Images

Dear Sirs, Here are two of my recent images you are welcome to use. Feel free to crop or resize if you need to. If you would like me to send you images in the future, just let me know. Regards,

○.....*Date: Sat, 20 Aug 2005 11:49:05 -0500*
Subject: Re: [marsobservers] Mars August 20th

Perhaps I'm seeing things, but the mist in Hellas appears to have several round areas about the same size as the ones north of the SPC. Regards,

Joel WARREN (ジョエル・ウォーレン Amarillo, TX 美)

○.....*Date: Wed, 3 Aug 2005 21:43:59 +0200*
Subject: 03 AUG 2005 - 02:15 UT image

Please find attached a Mars image, taken early this morning from 's-Gravenwezel, Belgium. (51.2°N, 4.5°E)

The image is a combined RRGB + IR image to enhance contrast of surface details. Taken with a 35 cm SCT telescope @ f/33 and ToUCam Pro 740K in OCM (optimized color raw mode). Each AVI sequence (RGB with IR-Block and with IR-pass filter) was 1200 frames. Best Regards,

Tom ALDERWEIRELDT

(トム・アルデルウェイレルト 's-Gravenwezel 比利时)

●.....*Date: Wed, 03 Aug 2005 22:43:58 +0200*
Subject: Mars on august 2nd

Hi all, my ATK-1HS is currently in trouble and I've been forced to image with the Toucam only: Seeing was

good but I've not been able to take good B images for that reason. The two color images are interesting as they both show pros and cons. The normal unmodified webcam gives good contrast and resolution, but many artefacts. The color raw mode is surprising ; contrast of the details is much lower, but the B layer is excellent, almost free from artefacts as can be seen in the set. Despite lower resolution this image is my favorite as it reproduces exactly the colors and contrasts I saw visually. Also, clouds are finally white, not blue, which is not their real color. The image finally reveal the evening mist, proving that the Toucam is able to reproduce it, if imaging and processing are done with care.

Best wishes

(my web site is now open again although some data has been lost: <http://www.astrosurf.org/pellier/>)

○ *Date: Tue, 09 Aug 2005 23:04:24 +0200*
Subject: Mars on august 9th

Hi all, some new Toucam images taken this morning under very good conditions despite the jetstream not too far away. Again the unmodified mode gives the best contrast on details, but the raw color reproduces almost perfectly the real state of the planet as seen at the eyepiece, and the blue layer is still free from artefacts.

The filtered images are also obtained thanks to the raw color modification. Much haze is found on the evening Hellas and this is what must give it its cream color...

My ATK looks really dead but a Lumenera camera should be there by the end of the week. Regards

○ *Date: Sat, 13 Aug 2005 16:04:57 +0200*
Subject: Mars on august 16th 2005

Hi all, here are my last Toucam images taken under very good conditions (although the images are technically not as good as on the 11th). Most striking is the thick antarctic haze that we've seen on many images. It was easily seen in visual. Is this normal for the season ? It seems that there is also some curious frost patches near the SPC where there was nothing at the same season in 2003... Is the climate of the planet colder than normal ?

Best wishes,

○ *Date: Sun, 21 Aug 2005 13:45:22 +0200*
Subject: Mars on august 17th

Hi all, here are my first images taken with the Lumenera. A problem I has are permanent moving lines on the images and I'm looking for a solution as it doesn't

look normal... Their presence is clearly seen on the second serie. Apart of this the camera is giving promising results even if settings are not optimal here and many things are yet to be fixed ! The antarctic hazes are still prominent. Regards

○ *Date: Sun, 21 Aug 2005 18:52:12 +0200*
Subject: Mars on august 18th

A second set with the Lumenera. Seeing was better. The parasites lines have been seriously minimised by shooting at 60 fps for R and G, with a stacking of 2000 frames each. The blue images are taken at 7,5 fps, as 60 fps isn't possible anymore. Regards

○ *Date: Sun, 21 Aug 2005 20:27:55 +0200*
Subject: Re: Mars on august 17th

Hi Paolo, it's evident that the Lumenera is more efficient than the Toucam. Just need to get rid of this problem... Yes F/80 is a bit too much. Next time I'll intervert the Powermate and the filter barrel then the F ratio will be around 60. For this set the framerates were 30 and 15 fps mainly, where the parasites are more prominent... A stack of around 1000 frames for each images have been realized. Best

Paolo R. Lazzarotti a écrit :

> Hi Christophe,
 > This set of images is remarkable, I've still on my mind your latest
 > one recorded on Aug. 16th with your old Toucam under a very good
 > seeing and the comparison is interesting!
 >> F/80 working ratio isn't quite excessive? I find much better working
 > at f/50-60 to freeze the seeing, have more frames (you can use an
 > higher framerate), have more signal and reduce the noise all together!
 > You may want to resize your frames when processing.
 > How many frames did you stack and how the framerate?
 >> In spite of your odd problem, a great starting image any way, bravo!

○ *Date: Tue, 23 Aug 2005 07:39:34 +0200*
Subject: Re: Re: Mars Image 20 Aug 2005

Hi Ralf, taking some time visually at the eyepiece is a good way to know how to process color images. The purple area on your image does correspond to what the CMO call "wine-colored areas", parts of the atmosphere that are clear enough to let us see the reddish surface with more contrast. So it should be deep orange. See for example mines on august 11th but there are many examples : <http://www.astrosurf.org/pellier/M050811-CPE>

Another way to avoid color errors is to make true color processing (RGB or LRGB). Any RRGB, IR-GB and so on, are sure ways to flaw the final image...Best wishes,

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

●.....Date: Fri, 5 Aug 2005 17:59:33 -0500
Subject: non title

Dear Masatsugu, Am planning to wear the Nagasaki cuff links and tie clasps, in honor -- memory -- of those who died on August 6 and 9, 1945. The visit to the Nagasaki Atom Bomb Museum with you and Tadashi will always remain one of the most memorable impressions of my trip to Japan.

Hope you are well, and that all is going forward for Mars in October! All the best, yours,

○.....Date: Mon, 8 Aug 2005 20:33:26 -0500
Subject: Re: RE:non title

Dear Masatsugu, Yours is very welcome, and I promise to respond to it fully tomorrow. At the moment it is late and I am quite pressed and don't think I could give you a coherent response -- I wish to think carefully through all your questions. But you shall hear from me soon. For now I am exceedingly glad that your wife's condition is well -- your heart rate has been regular -- and that you will be joining me in California some two months hence.

TEN YEARS AGO (120)

----CMO #165 (10 Aug 1995) & #166 (25 Aug 1995)----

CMO#165は特別號で、前年夏の村上昌己(Mk)氏の「天文三昧の旅」の續編と1992/93年の唐那・派克氏の観測の紹介(そのIII)が占める。1994年の八月には福井でOAAの總會があり、Mk氏は盛り澤山である。6日朝は引き續きccdなどのCMOの勉強会の續き、6日昼は福井市自然史博物館主催の「天文講座」、夕方から一般公開観望会で、二百名ほどの市民が列を作り、SL-9の痕がクッキリ見えるので人気、Mk氏ほかCMOメンバーも手傷っている。夕食は蕎麦屋で、Mk氏は「越前おろし蕎麦セット」だったようだが、蕎麦つゆは甘くてバツ、但し「大根おろし」入りのつゆは二重丸だった由。7日はフェニックス・プラザでOAA總會、夕方は博物館天文台に移り、坂上務氏や村山定男氏、山口正博氏も参加して木星のSL-9の痕の観望、その後福井市花火大会、深夜近くになって前日お昼に講演された村山定男氏がCMO懇談会で話された。その後は残った人たちで懇談会の續行と火星の初観測で朝を迎え、やっとこれで閉會、ld氏は京都へ、lw氏は伊丹へとある。Mk氏は福井発長野行きで野倉へ向かった。ここにはMk氏の仲間の據點がある。そのあと茅野に向かい、いつものようにペルセを観測、13日に藤澤に歸った模様が綴られている。その間、一度も雨に遭わなかった由。



唐那・派克氏の92/93のccd観測レビューは#129に續くもので、衝後・後半のNo56からNo97(Jan~Mar1993)を扱い、十八像がコピーされている。どの像も詳細に富むが、強調がキツイという印象であったようである。ソリス・ラクス周辺は今と変わらない。

CMO#166は16July1995から15Aug1995までの期間の観測報告が主である。季節は $\lambda = 127^\circ$ Lsから 141° Lsに推移しているが、 δ は $5.3''$ から $4.8''$ で、終焉である。 ϕ は 26° N。それでも観測数は福井の他ls氏やlw氏など44あり、その他に追加報告がMo氏やHk氏の他、海外からもある。Hk氏は三月まで長野、四月から伊那に移ったのはこの年であった。八月7日は丁度前年の観測開始(Mk氏の報告にある1994年の夏の福井の懇談会の折りである)から一周年で、筆者はCMOのTシャツ(1994年のOAA總會の折りに作成した)で記念観測したとある。丁度 $\delta = 5''$ に戻ったわけで、Lteではls氏も同じ指摘をしている。Lteには他に、この年のMk氏はペルセをやらず、ハケ岳の赤岳(2899m)登山で苦労した話がある。但し、高山植物の「駒草」に出会え、ホツとした由。Hk氏からも伊那の話がある。二人に関係するので長野の地圖を入れたが、後のローエル・ロードと重なる。この夏、土星の環は消失期で、どなたも触れている。福井ではNj氏は痛む膝が完治していなくて服薬している由。Ns氏は北海道旅行。尚、この夏は敗戦五十周年であった。福井市は恒例とはいえ花火大会を廣島の日の6日に舉行したが、矢張りNj氏や筆者などには違和感のあることであった。(Mn)

All the best, yours,

○ · · · · · **Date: Tue, 9 Aug 2005 18:30:21 -0500**

Subject: Re: RE:non title

Dear Masatsugu, I have been much with you and my other friends in Japan throughout this day. I wore the cuff-links and tie-clasp -- an unusual presentation for me, as I am rarely attired with such sartorial splendor. The world's madness about atom bombs continues and I agree wholeheartedly with the words of the Mayor of Nagasaki who pointed out that the U.S. has yet to ratchet down its own arsenal. Meanwhile, it seems as if Koizumi has sustained a blow with the vote over reforming the postal service. I had not fully grasped the consequences of the latter, and how tied up the postal service is in the insurance and retirement situation of many Japanese.

There must be a great deal of apprehension in Japan about the appropriate relationship to maintain with the U.S. I have certainly noted a shift in that, whereas for a long time the U.S. was concerned about the economic relationship with Japan, now everything has centered on relations with China. The situation in North Korea must also be quite unsettling. The Americans are fickle friends I'm afraid; remember Madame Butterfly. But what is the alternative to the U.S. Nuclear Umbrella? Remilitarizing Japan?

The Bush Administration of course has created crisis after crisis since its reckless intervention, under such unsound circumstances, in Iraq, which only communicated to the so-called "rogue" nations that their only hope is to maintain a credible nuclear threat or they would face similar "preemption." So defanging the illusory weapons of Iraq have only increased the threat of other nuclear powers developing -- in the end, it is probably inevitable. The Non-proliferation treaty, which certain countries (Israel, India, Pakistan) has refused to sign, is no doubt as tenuous and unworkable as the much-maligned Kyoto Accord. Each country serves its own self-interests and agreements worked out at a multi-national level are adhered to only when convenient.

There's scant hope I suppose of humans making it to the 22nd century. Sir Martin Rees has indicated a 50-50 chance may be too optimistic.

Now to our problem, as you say, of the forthcoming Mt. Hamilton excursion. · · · · ·

I shall check with Tony Misch about your questions but I don't think there should be any problem with your personal computer at Lick. · · · · As for any packages you should wish to send, either inbound or outbound, there is a post office at Mt. Hamilton, so this will be easily achieved. I should simply address them c/o Tony Misch.

The more technical question about the diagonal at the eyepiece. We did use the diagonal initially but later adopted a binocular eyepiece which gave magnificent views and provided us with a direct image. I did not mind using the diagonal at first simply because it presented a different look at Mars and helped me to draw what I saw rather than what I know -- an old trick described by artists like John Ruskin. The binocular eyepiece gave a direct image. · · · · ·

We will be headed for one night at Mt. Wilson, and may wish to stay over in Pasadena, and I at least am destined for two nights in Santa Cruz where I will present on our Mars work at the Lick Observatory's colloquium and meet my friend and history of astronomy mentor Don Osterbrock. You are welcome to come to Santa Cruz with me and we can share the same accommodation. I don't know if anyone else -- Tony or John -- will want to come down for that.

Please give my best wishes to your wife for her continuing recovery and congratulations on the excellent news of her completed literary works. Also my kind regards to Nakajima and of course to your good self.

With best wishes, and looking forward to seeing you soon (on Sputnik day -- October 4),

○ · · · · · **Date: Fri, 19 Aug 2005 19:42:45 -0500**

Subject: Re: RE:Re: Barnard on 26 Aug 1894

Dear Masatsugu, Just a brief note to say I'm off tonight to Denver for a conference and then a little bit of touring in Colorado and Wyoming -- I hope to visit Rawlins, Wyoming, and find the site from which James Watson observed the two strange stars near the Sun at the eclipse of 1878; he thought them intramercurial planets -- C.H.F. Peters deduced they were ordinary stars in Cancer. Peters was almost surely right, but we may never know for certain.

Then I'm going to Green River, Wyoming, from which point E. E. Barnard observed the eclipse of 1918 and discovered *Nova Aquilae* that same evening. This was

also the departure point of John Wesley Powell when he began his journey down the Green and Colorado Rivers into the Grand Canyon.

I will respond more fully to your latest very welcome and interesting e-mail on my return.

With best wishes,

Bill SHEEHAN (ウィリアム・シーハン MN 美)

●……たいへんご無沙汰しています。暑い最中お元気でお過ごしでしょうか。火星もそろそろ大きくなり楽しみなことです。こちらは晴れる日も多く火星撮影に勤んでいます。しかしながらどうも空の状態がこれ迄の夏空とは違い、これもやはり異常気象かと思っています。(6Aug2005消印)
○……木星はまだ西空に見えていますが、七月いっぱいまで終えました。八月に入り火星も11秒角台で大きく感じます。八月10日にはエリダニアに、13日にはシレーンの海の南接に小規模黄雲が見られました。昨年に比べ台風接近が少なく撮影は順調です。火星高度が高いのも久しぶりです。秋の接近に向け健康には気をつけてご活躍下さい。(18Aug2005消印)

比嘉 保信 (Y HIGA 那覇 Okinawa)

●……Date: Sat, 6 Aug 2005 17:28:43 +0800
Subject: Re: 颱風お見舞い

メールをありがとうございます。午後三時半にみつけました。『火星通信』307は台北市内の住宅に安着しました。台風9号は大雨をもたらし、台湾中の各地に洪水が発生しましたが、風害はありませんでした。台風の中心は、台湾の陸地に200km以内に近寄りませんでした。

蔡章献さんは、あまりFAXをくれなくなりました。蔡さんが今使っているFAX機は、受信は順調だけれども、送信が難しいみたいです。私はまだ蔡さんの今の住宅へ行ったことがありませんので、どんなFAX機なのか知りません。私から友人へ送るFAXは、パソコンから直接発信しています。友人から私へFAXで送ってくる手紙は、パソコンで受け取らずに、FAX機で受信しています。蔡さんから送ってくるFAXは、米粒みたいな小さな字で書いてあるので閉口です。老いたる蔡さんは、文字を書くとき、顔が紙面から15cmしか離れていないのじゃないかと思えます。……

陶蕃麟さんが停年だということは、『火星通信』307の蔡さんの手紙ではじめて知りました。普通の文官の停年は55歳だが、技術員は65歳と聞いています。陶蕃麟さんは技術員のはずですから、もう65歳になったのかな。王永川さんは、日本語ができるので、私のような日本時代の皇民化教育を受けた者にとっては、談話に便利です。しかし長い間会っていません。王さんは日本語勉強のために、私に質問することがありました。あるとき「耳の聞こえない人のことは、耳の不自由な方と言うのがていねいな言い方だ」と教えてやりました。

今から五年ほど前の春、アメリカ居住30年の長女が、日本へ行ってみたいと言い出したので、東京と大阪方面を十日ほど案内してやりました。そのとき大阪城で、何かの記念のお祭りがあって、鎧兜の武者が火縄銃を一発ぶっ放して見せたのですが、そのとき彼と私の距離は5mぐらい、私の耳の底にパーンとたしかにきこえて、あっ、まだほんのすこし聴力が残っているぞと感激しました。長女は日本語ができないけれども、日本には英語の話せる人がどこにでもいると云っていました。

邱國光さんとは十数年前一緒に東京へ旅行したことがあります。南さんが台北市立天文台に来ていたときのことです。邱さんが気象局へ転任した後はあっていません。蔡さんへはさっそくFAXするつもりです。

敬具

賴 武揚 (W.-Y. LAI 臺北 Taiwan)

●……Date: Sun, 07 Aug 2005 12:38:59 +1000
Subject: Mars 31st July & 4th August

After more than a month of cloudy weather, Mars appeared again on the 31st July; albeit with poor seeing. Similar conditions also for the image on the 4th August.
Regards

Maurice VALIMBERTI

(モリス・ヴァリンバルティ Melbourne 澳)

●……Date: Sun, 7 Aug 2005 19:10:24 +0900
Subject: Re: FW:From Bill Sheehan

八月4日早朝(日本時で)の画像をお送りします。七月下旬から七月3日ころまでは二度目の梅雨?のように天気が悪く、ようやく3日以降は晴れがらの天候となりましたが、気流は今ひとつ、

おまけに夜になると雲が出ます。八月になって、何とかお送りできるような画像が得られたのは、今のところ4日だけです。

松本 直弥 (Naoya MATSUMOTO 佐世保 Nagasaki)

●.....Date: Sat, 13 Aug 2005 18:29:22 +0200

Subject: Marte 12 de Agosto

Hello, my new friend, I am from Spain. My name is Emilio Hidalgo Tortosa. Excuse me for my poor English. I send you my Mart's image.

Emilio HIDALGO (エミリオ・ヒダールホ La Carolina 西)

●.....Date: Sun, 14 Aug 2005 14:37:16 +0900

Subject: Re: 観測依頼

残暑お見舞い申し上げます。ご依頼の件、別添のとおり、今朝がた画像を得ましたので送信します。撮像が、指定の時刻よりも遅くなりました。また、B光での単独画像も得ておりません。

添付画像では、オリュンプス・モンスは、暗斑状を呈しており、タルシス付近も黒々しています。明瞭な山岳雲は認められないようです。尚、眼視では火星を眺めておらず、ポエニキス・ラクス〜アルシアの状況は確認しておりません。報告まで。

宮崎 勲 (Isao MIYAZAKI うるま Okinawa)

●.....Date: Mon, 15 Aug 2005 21:00:45 +0200

Subject: Mars 2005-08-13

Dear Sirs, after "non-astronomical" holidays my recent image of Mars. Best Regards,

Michael KARRER (ミハエル・カッター St Radegund 奥)

●.....Date: Mon, 15 Aug 2005 13:25:52 -0400

Subject: Cloudy Florida

Masatsugu-San, I have not observed Mars this apparition due to rainy weather. It began to rain the last week of May and, except for a few days, has rained each and every day. The problem is clouds since by the time Mars rises it is usually cloudy, so I got used to sleeping in later. When the Red Planet begins to rise late at night the cloudy weather should go away and I will probably begin observing in early October. Some years are like this and we who live in Florida are used to such weather.

Hopefully the hurricanes will stay on their normal paths and not over central Florida. I remember the typhoons

when living on Okinawa during the early 1960's, however, the hurricanes we had last year would be only a light breeze compared to the typhoons. Hope you have good observing while near Naha City.

So, I will watch Mars from the Internet and observe with my 16" later on. From measuring CCD red-light images the south polar cap appears to be retreating as usual and I have seen no anomalies.

Please say hello to Mr. Akinori NISHITA, Mr. Tsutomu ISHIBASHI, Mr. Morimasa NAKAJIMA, Ms. Hitomi TSUNEMACHI, and Mr. Masami MURAKAMI whom met us when we visited Japan in March 2002..

Jeff BEISH (ジェフ・ビーシュ FL 美)

●.....Date: Wed, 17 Aug 2005 21:50:51 +0200

Subject: Mars from 17.8.05

Dear Masatsugu, dear Masami,

here my Marspictures from 17.8.05. It was very humid, but good Seeing. best wishes

○.....Date: Sat, 20 Aug 2005 05:45:10 +0200

Subject: Mars from 19. August 2005

Dear Masatsugu, dear Masami,

here are my Marspictures from 19 August 2005, now the weather is going bad, it will rain the next days... best wishes

Silvia KOWOLLIK (シルヴァ・イア・コウウォリック Stuttgart 徳)

●.....Date: Thu, 18 Aug 2005 18:34:19 +0900

Subject: 8月16日の画像

八月16日に、今シーズン初めての火星画像を撮影しましたので、お送りします。カラーはビデオで、IRとBはccdカメラ(ST-5C)で撮影してみました。

○.....Date: Fri, 19 Aug 2005 17:05:21 +0900

Subject: Re: 8月16日の画像

南様：(村上さんにもCcします。)

>今後はvzvと同時に村上さんのcmo@mars.dti.ne.jpにもCcで送ってください。>その方が遅れが無く済みます。直したところは二行を一行にしたところと、>観測地です。バイト数を出るだけ小さくするために、ケチケチしています。

承知しました。また送付画像のフォーマットも参考にさせていただきます。

>ところで、一番下のカラーがおかしいのですが、これは私の受けた状態で既に>そうになっています。1:1で出しますので、目立つのですが、あなたの方では綺麗に出ていましたか？調べてお返事下さい。いや1:2でも矢張り目立ちますね。何でしょうね。

画像処理の方法を、2003年に使っていたRegistax

からステライメージ(最大エントロピー法)に変えました。この処理のパラメータが不適切で諧調がおかしくなったのかと思います。パラメータを少し変えて再処理を試みたものを、添付してあります。もしこれでよろしければ、差し替えていただければと思います。ご迷惑をおかけします。

浅田 正 (Tadashi ASADA 宗像 Fukuoka)

●.....Date: Thu, 18 Aug 2005 10:04:32 -0500
Subject: Mars August 18th

Here are images of Mars taken August 18th 2005 from Houston Texas. In the brightly processed red and green images (10:00 and 10:03 UT) a cloud can be seen casting it's shadow near the terminator.

C14 at f/37, taken with a ST402 CCD. Seeing 8./10, Transp. 8/10, Temp 78F, Relative Humidity 91%, Red/Grn/Blu @ 75% scale.

<http://www.ghg.net/egrafton/m8-18-05.jpg>

Ed GRAFTON (エド・グラフトン Houston, TX 美)

●.....Date: Sun, 21 Aug 2005 20:00:07 +0200
Subject: Re: Mars on august 17th

Hi Christophe, This set of images is remarkable, I've still on my mind your latest one recorded on Aug. 16th with your old Toucam under a very good seeing and the comparison is interesting!

F/80 working ratio isn't quite excessive? I find much

better working at f/50-60 to freeze the seeing, have more frames (you can use an higher framerate), have more signal and reduce the noise all together! You may want to resize your frames when processing. How many frames did you stack and how the framerate?

In spite of your odd problem, a great starting image any way, bravo!

Paolo LAZZAROTTI (パオロ・ラッサロッティ Massa 義)
<http://www.astromeccanica.it>
<http://www.paololazzarotti.com>

●.....Date: Mon, 22 Aug 2005 20:52:57 +1000
Subject: Mars image from 21 Aug

Please find attached my Mars image from Monday morning.

Stefan BUDA (ステイファン・ブダ Melbourne 澳)

●.....Date: Wed, 24 Aug 2005 19:45:00 -0400
Subject: Mars Images

For your CMO/OAA Gallery. See attached.

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

(註) Just after finishing the CMO Report #09, we have received from Larry OWENS a total of 32 excellent images which were taken on 13, 17, 21, 22, 23, 24, 26, 27 July; 4, 11, 12, 13, 15, 16, 19, 20 August 2005 (by the use of a 35 cm SCT@f/36 equipped with a ToUcam). Unfortunately we missed to take these images into account in the present report, but we shall review thm in the coming issue. Images will be soon uploaded in the CMO Gallery as "Newly Added."
(Ed)

☆☆☆

シー・エム・オー・フクイ

中島 孝 Nj

★ 残念ながら今回もカンパがありませんでした。不一

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

『火星通信』#308 (25 August 2005) 編集: 南 政次(Mn)、村上昌己(Mk)、中島 孝(Nj)

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