ISSN 0917−7388

COMMUNICATIONS IN 東亞天文學會『火星通信』since 1986

MARS No. 333

10 July 2007

Extra Issue

OBSERVATIONS Published by the OAA Mars Section

CMO 2007/2008 Mars Report #04

OAA Mars Section

SINCE the long-awaited dust at Noachis was onset, changing a previous plan we publish an extra issue of the CMO (on 10 July) and here try to review the earlier status of the *Noachis Dust Cloud*. We here treat so the period

from 16 June (λ=258°Ls) to 30 June (λ=268°Ls)

in this issue. During the period the apparent diameter δ was mere 6.0" to 6.3". The central latitude φ was down from 22°S to 19°S, and the phase angle ι was 40°→41°. The apparent declination D on 30 June was 11.5°N, and so the altitude was much improved seen from the northern hemisphere. In Japan we are in the midst of the rainy season, and so have not got well with the observations these days.

♂……今回は、待望のノアキス黄雲が發生したので、豫定を變更して10日號を發行し、六月後半、16June～30Juneのレヴューを試みる。この間、季節はλ=258°Lsからλ=268°Lsに推移した。南半球の夏至直前である。視直徑δは未だ6.0"から6.3"に延びたに過ぎない。中央緯度はφ=22°Sから19°Sとなった。位相角ιは40°→41°である。視赤緯Dは30Juneで11.5°Nで北半球からは火星は可成り高くなった。

日本列島(沖縄を除き)は梅雨に入ったところで、觀測は思わしくない。唯、美國の觀測が揃った。

♂……The observations we received this period are as follows: 今回の觀測報告は次の如くである。

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

1 *Colour* CCD Image (29 June 2007) *f*/28⊗20cm SCT with ToUcam II

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

2 *IR* CCD Images (28 June 2007) *f*/29⊗28cm SCT with mono ToUcam

BATES, Donald R ドン・ベーツ (*DBt*) 德克薩斯·休斯敦 Houston, TX, USA

1 *Colour* CCD Image (29 June 2007) *f*/25⊗25cm spec with a ToUcam Pro

HEFFNER, Robert ロバート・ヘフナー (*RHf*) 名古屋 Nagoya, Aichi, Japan

2 *R* CCD Images (30 June 2007) 28cm SCT with a DMK21AF04

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

1 *IR* CCD Image (27 June 2007) *f*/90⊗20cm Dall-Kirkham with a DMK21AF04

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

4 *Colour* + 6 *IR* CCD Images (26,~ 30 June 2007) 23cm SCT (⊗Tele Vue 5× Powermate) with DMK21BF04 & DFK21AF04

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

1 Drawings (18 June 2007) 250×10cm refractor

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

2 *R* CCD Images (27 June 2007) *f*/20⊗25cm SCT with a Starlight Xpress MX-5

MELKA, James T ジム・メルカ (*JMl*) St.Louis, MO, USA

2 *Colour* CCD Images (25, 27 June 2007) 30cm Spec with a ToUcam 840

MINAMI, Masatsugu 南　政 次 (*Mn*) 福井 Fukui, Fukui, Japan

12 Drawings (16, 19, 27, 30 June 2007) 350, 400, 600×20cm Goto ED refractor*
*Fukui City Observatory 福井市自然史博物館天文臺

MOORE, David M デイヴィッド・ムーア (*DMr*) 亞利桑那 Phœnix, AZ, USA

1 *R* + 1 *IR* CCD Images (24 June 2007) *f*/30⊗36cm Cass with DMK21AF04

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

9 Sets of *RGB* +13 *IR* CCD Images (16, 24, 26, 29 June 2007) 25cm spec with a Lu075M

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

2 Drawings (28 June 2007) 320×20cm *F*/8 speculum

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

2 Drawings (30 June 2007) 350, 600×20cm Goto ED refractor*
* Fukui City Observatory 福井市自然史博物館屋上天文臺

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

1 Set of *RGB* CCD Images (27 June 2007) *f*/36⊗35cm SCT with a DMK25AF04

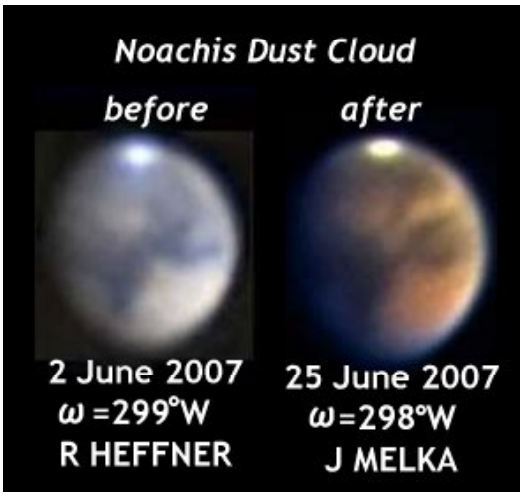
WALKER, Sean ショーン・ウォーカー (*SWk*) Chester, NH, USA

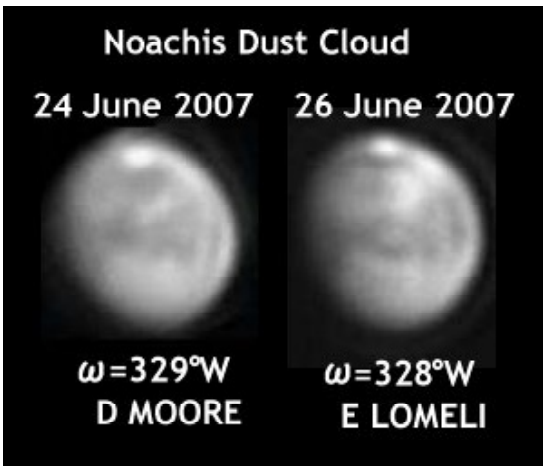
2 Sets of *IR* CCD Images (27, 30 June 2007) 32cm Speculum

♂・・・・・・***Noachis Dust Storm***: As the summer solstice of the Martian southern hemisphere approached, the southern summer dusts were expected (see CMO #331 Coming (7)). In the preceding issue we so reviewed our pursuit of the area of M Serpentis made from Australia and Japan. Unfortunately, the dust cloud did not appear at the area in question, and the chance went to Europe. At present no more than a few observations are sent from Europe, but MAKSYMOWICZ (*SMk*) observed on 18 June (λ=260°Ls) at ω=252°W, and showed the presence of M Serpentis on the morning side without any dust (criterion of M Serpentis proved later not so relevant however). Then the scene went to the American continents. The real news of the Noachis dust reached us by Cc email of Christopher PELLIER (*CPl*) to Jim MELKA (*JMl*) who posted his image on 25 June on a Yahoo Group Site (we are thankful to *CPl* for his kindness). This email reached us at 6:01 JST on 26 June (21:01 GMT on 25 June). To some of the domestic observers we communicated this news in Japanese at 6:34 JST. Since we are not the members of the Yahoo Group, we asked *CPl* and Robert HEFFNER (*RHf*) who is a Yahoo member here in Japan to send us *JMl*'s image. *JMl*'s image was sent to us from *RHf* at 11:45 JST, and since we certified *CPl*'s claim well-grounded we sent out an Alert to the CMO Colleagues from cmo@ at 13:39 JST (04:39 GMT) by the use of the CMO mailing list. Immediately David MOORE (*DMr*) returned Re-email to us at 14:09 JST (05:09 GMT) in which attached were his amazing images on 24 June (see below). *CPl*'s reply with *JMl*'s address reached us at 14:35 JST (5:35 GMT), and so we thanked him with forwarding *DMr*'s images. At the same time we started to upload *DMr*'s images on our Gallery. A reply from *JMl* reached us at 20:29 JST (11:29 GMT), and so smoothly *JMl*'s image was also uploaded. Later *JMl* turned out not the new to us. His LtE is included in CMO #277 (August 2003) and also in 2005 at page ser2-0235 in CMO#311.

The images of *DMr* on 24 June (λ=264°Ls) were taken at ω=329°W(R) and at 334°W(IR) both of which show a bar-like dust streak inside Noachis near M Serpentis. The north-eastern end of the dust was near at (325°W, 25°S) and so it looks not touching M Serpentis. The longitude length looks to extend from Ω=325°W to 010°W. Argyre might have been near the limb. The brighter centre was at the zone from 30°S to 40°S. On the other hand, the image of *JMl* on 25 June (λ=264°Ls) was taken at ω=298°W, and the very area was at the morning side. An NE dust tail curved down to the eastern part of M Serpentis, evading its centre. The tail must have been connected with the cloud on Hellas (as was the case seen on the second

day of the 1971b storm – see L J MARTIN, *Icarus* **22** (1974) 175). The brightest central part looks to locate between 40°S and 50°S, and hence the *JMl* day's configuration is slightly different from the *DMr* day's one. The aspect of the area at Argyre is unknown. On 26 June (λ=265°Ls) Ed LOMELI (*ELm*) took the images at ω=321°W, 327°W (328°W). Since *ELm* is located near the West Coast, he can take rather later angles in the US continent. If we compare one of his with the images of *DMr* the core of the dust was reconstructed moving to the SW direction, and became larger. The eastern core looks to expand within (Ω=340°W ~360°W, Φ=30°S~60°S), and there is seen another core at Argyre and it covers the area of (Ω=010°W～050°W, Φ=40°S~070°S). The eastern side looked to be pushed back by the presence of some dark markings near at Depressiones Hellesponticae. The spc is clearly seen. On the same day Yukio MORITA (*Mo*) from our side made a set of images at ω=059°W, 062°W (063°W), 068°W, 073°W(IR). They show the presence of Solis L near the limb, and also show that the dust was up to the position of Argyre. Since the data are not fully obtainable at this preliminary season, we missed to receive other Argyre angles (except for *Mo*'s images on 24 June (λ=263°Ls) at ω=080°W), but in 1956, there occurred a dust near at Argyre which preceded the Noachis dust outbreak, and so there is a possibility that the true story tells vice versa. But the dust streak on *DMr*'s image on 24 June is so typical that we may call this dust event the Noachis Dust Storm. On 27 June (λ=266°Ls), a lot of work was issued. At the East Coast Sean WALKER (*SWk*) took at ω=240°W, Frank MELILLO (*FMl*) at ω=267°W, 278°W, and Larry OWENS (*LOw*) at ω=271°W. *JMl* also gained an image at ω=280°W, and at the West Coast, *ELm* at ω=316°W, 321°W (322°W). The first two observers seem to show that the centre of dust lies still on the side of Noachis, and *LOw* and *JMl* show that the cloud flowed out to the side of Hellas as well as to the northern hemisphere but still the ground of Hellas remains. On *ELm*'s images the situation looks similar to the previous days but became complex at the western side of Noachis. From Japanese side, one of us (*Mn*) visually watched at ω=018°W, 027°W, 037°W, and Teruaki KUMAMORI (*Km*) took an image at ω=048°W: The spc was clearly seen, and the dust looked to extend to the whole Argyre bounded by an NW roundish contour, and less bright than the spc. S Meridiani looked to be present. On *Km*'s image, Solis L is still seen near the limb, and looks normal except for the dust at Argyre. On 28 June (λ=266°Ls) *ELm* took at ω=309°W, 312°W. The core appears similarly to the preceding days, but its northern contour seems to be down to S Meridiani. Uncertain however about the detail of S Meridiani. On our side, another of us (*Mk*) watched at ω=000°W, 010°W: The seeing was poor and S Sabaeus and S Meridiani appeared just dim. It was difficult to grasp the contour of the dust. On 29 June (λ=267°Ls), Don BATES (*DBt*) shot at ω=260°W, and *ELm* at ω=293°W, 298°W (299°W). They well suggest a dust broad-band covers Hellas as well as Noachis. On our side, Tomio AKUTSU (*Ak*) took at ω=030°W and *Mo* also made an important contribution on the day at ω=030°W, 033°W, 039°W, 042°W (sets of R, G, B, IR images). These show that the airborne dust has been down to the northern hemisphere perhaps from the day before and covers whole the surface. Furthermore there are suggested a few resonance cores. The dark markings look queer under





the dust covering just like the ones we encountered in 2001. The G images also suggest that there is a white morning limb patch near the spc. The dust covering must have affected the following Solis L region, but unfortunately we had no report from Europe. Finally on 30 June (λ=267°Ls~268°Ls) at the East Coast *SWk* took images at ω=210°W (212°W), and at the West Coast, *ELm* at ω=289°W, 291°W (293°W), 298°W. On the former Hellas looks bright, and the dust extends to Eridania. On the latter, there is shown a broad dusty band from Hellas to Noachis, but Hellas is not particularly bright (locating inside the disk). On the Martian western side, Robert HEFFNER (*RHf*) at Nagoya, Japan, took images at ω= 003°W, 008°W, and 012°W: The spc is clear, but the dust does not show its boundary, but covers whole and such dark markings as Erythraeum M look singularly shadowy, and on the contrary Meridiani S does not show up. There is suggested a resonant dust devil at Chryse. On the day after *RHf*'s times, there occurred a lull near dawn at Fukui, and Takashi NAKAJIMA (*Nj*) and *Mn* were able to observe at ω= 022°W (*Mn*), 027°W (*Nj*), 032°W (*Mn*), 037°W (*Nj*). It was possible to use magnification 600× because the seeing was favourable. The spc, bounded by the dark circumpolar area, was definitely seen, but did not shine and apparently it was covered by the airborne dust. Furthermore we saw that the whole surface was under the dust. The dark markings including Auroræ S and Margaritifer S were seen but strangely looked to hang down to the north. Niliacus L was not so vivid as shown by *RHf* by the naked eyes. The naked eyes told that the dust covered from the south polar region to the northern end. The disk showed a tint of whitish lemon-yellow. This dust so proved already to be global though the optical depth is not yet so deep.

The above is an outline of the Noachis dust cloud seen at the end of June. As observations made in this period, we also received from *Mo* images made on 16 June (λ=258°Ls) at ω=166°W, as well as from David ARDITTI (*DAr*) on 28 June (λ=266°Ls) at ω=165°W, 172°W where we thought no effect of the Noachis dust arrived yet. We needer further information from Europe. Any dust storm which occurs in the southern summer has a tendency to encircle the planet (mostly goes westward). The lack of the data or the bad turnout on the side of Europe must be a fatal blow to build a complete story.

♂……南半球の夏至が近づいて、南半球特有の黄雲の季節が近づいていることは#331のComing(7)で述べ、前號では濠大利亞と日本でのマレ・セルペンティス方面の追求を報告した。殘念ながらこの時は黄雲は現れず、歐羅巴に移って行った。現在歐羅巴の觀測は殆ど無いのだが、マクシモヴィッチ(SMk)氏の18June(λ=260°Ls)ω=252°Wではマレ・セルペンティスが未だ殘っているから棒状黄雲は起こっていないと考えられた(實際にはマレ・セルペンティスを介する判斷は甘かった様である)。その後アメリカへ移ったわけである。實際にノアキスに黄雲が出ているという聯絡は日本時間26日の午前6:01 (21:01 GMT on 25 June)にクリストフ・ペリエ(CPl)氏のメルカ(JMl)氏への返信が親切にCMOにCcされて入ったのが最初である。筆者達はヤフー・グループに入っていないので、CPl氏やヘフナー(RHf)氏に畫像を依頼するとともに、6:34JSTには國内の一部觀測者にはMnのemailアドレスからこのニュースを發信した。JMl氏の畫像は11:45JSTにはRHf氏から届いて確認したので、CMOのemailアドレスから13:39JST(04:39GMT)にAlertを全體に向けてcmo@から發信した。間髪置かずその返信として、ムーア(DMr)氏から14:09JST(05:09GMT)に24Juneの畫像が入ってきた。これには既に明確に棒状黄塵が出ているので、吃驚。CPl氏からは14:35(向こうは朝)に聯絡が入ったので、DMr氏の畫像を転送すると共に、Mkはファサード掲載の準備に入った。JMl氏への聯絡には違ったアドレスを使ってしまい、遅れたが、20:29JST(11:29GMT)に掲載許可が入ったので、直後にはGalleryに掲載された。JMl氏は初めてではなく、2003年の#277のLtEにある(畫像附き)他、2005年にも#311のp0235のLtEには登場している。

扨て、24June(λ=264°Ls)のDMr氏の畫像はω=329°W(R)と334°W(IR)で撮られ、ノアキスが恰度見え、その中央を棒状に黄塵が立っている。北東端の位置は略(325°W、25°S)邊りであろうと思われるが、從って、マレ・セルペンティスに掛かっていないように思える。幅はΩ=325°Wから010°Wぐらいあろ

うか。アルギュレはまだ端であろう。中心はわれわれの判斷では30°Sと40°Sにあると考える。一方、25 June(λ=264°Ls)のJMl氏の畫像はω=298°Wで、當該域は未だ朝方であるが、二日目の形は出ている。黄塵の北東部は歪曲してマレ・セルペンティスの中央部を避けて東端に寄っているように見える。コア中心部は40°Sと50°Sにあるように見えるので、前日より少しずれて再現していると考えられる。既にヘッラスの方に聯絡が着いているかも知れない。これは1971年の1971b大黄雲の場合も二日目に見られた現象である(L J MARTIN, *Icarus* **22** (1974) 175)。翌26June(λ=265°Ls)にはロメリ(ELm)氏がω=321°W、327°W(328°W)で撮った。ELm氏は西海岸に近く、美大陸では遅い角度が撮れる。24JuneのDMr氏の畫像と並べることが出來(英文の部參照)、明らかに中心部を南西に移し全體に發達したように見える。東側コアの經度幅はΩ=340°W~360°W、緯度幅はΦ=30°S~60°Sぐらいに擴がっている。アルギュレ方面にも明部があって二つ玉のように見える。こちらはΩ=010°W～050°W、Φ=40°S~070°S程であるから、アルギュレを含む。デプレッシオネス・ヘッレスポンチカエ邊りの暗斑が東部を押さえている感じである。南極冠は未だ明白である。この日は森田(Mo)氏が日本側からの畫像を得た。ω=059°W、062°W(063°W)、068°W、073°W(IR)で、ソリス・ラクスなどを寫し込んでいるが、黄雲はアルギュレに至っていることを示している。但し、24June以前のアルギュレの資料はMo氏の24June(λ=263°Ls)ω=080°W以外揃っていないので分からないが、1956年の場合はノアキス黄雲に先立ってアルギュレに擾亂があったから、アルギュレの方が先であった可能性もある。然し、24JuneのDMr氏發現の黄雲はノアキス黄雲独特のものがあるので、ノアキス黄雲と命名して差し支えないであろう。27June(λ=266°Ls)には觀測が揃った：東海岸のウォーカー(SWk)氏がω=240°Wで撮ったのを始め、メリッロ(FMl)氏がω=267°W、278°W、オーエンス(LOw)氏がω=271°W、JMl氏がω=280°W、西海岸のELm氏がω=316°W、321°W(322°W)と揃っている。前二者の影像では未だ明らかに黄雲の明部はノアキス側にある。LOw氏、JMl氏の像ではヘッラスの方や北半球に雲が流れてきているが、部分的にはヘッラスは未だ地肌が見える様である。ELm氏の畫像では前日に似ているが、中心はノアキス西部で稍複雜な様子である。日本からは筆者達の一人(Mn)がω=018°W、027°W、037°Wで眼視觀測をし、熊森(Km)氏がω=048°Wで撮像した。南極冠は明確で、黄雲はアルギュレまで延びていてその北西端は丸みを帶びて見えているが、南極冠より明るさは鈍い。シヌス・メリディアニは出ていたと思う、Km氏の像ではソリス・ラクスが西端に出て來ていて、アルギュレ迄の黄雲以外正常のように思う。28June(λ=266°Ls)ではELm氏がω=309°W、312°Wで撮像した。コアについては前日を維持している様に見えるが、黄雲が北に降りて再發生している。シヌス・メリディアニは不明である。日本側では、われわれのもう一人(Mk)が眼視でω=000°W、010°Wで觀測したが、シーイングの所爲もあってシヌス・メリディアニのところは東西暗帶がボンヤリ見えるだけであった。黄雲の境界を摑むことも難しい。29June(λ=267°Ls)にはベーツ(DBt)氏がω=260°W、ELm氏がω=293°W、298°W(299°W)で撮った。既にノアキスからヘッラスへ黄雲が被り、太い帶状になったと見て好い。一方われわれ側では阿久津(Ak)氏がω=030°Wで撮ったが、森田(Mo)氏が重要な觀測をした。畫像はω=030°W、033°W、039°W、042°Wでセット(R、G、B、IR)で撮っているが、多分前日ぐらいから南半球から北半球に掛けて大きく浮遊黄雲が降りてきて、殆ど全面に亙っていると考えられる。暗色模様は見られるが、2001年の時の様に黄雲下の變形模様といった趣である。その他共鳴黄塵のコアが見られる他、Gでは南極冠の右側縁が明るい。續くソリス・ラクス領域なのでの結果が欲しいところであるが、歐羅巴は動いていない。30June(λ=267°Ls~268°Ls)には美大陸東海岸でSWk氏がω=210°W(212°W)で撮り、西海岸でELm氏がω=289°W、291°W(293°W)、298°Wで撮った。前者ではヘッラスが明るく見えるが、エリダニアまで進出しているように見える。後者では、ノアキスからヘッラスを越えて黄雲の太い帶で、ヘッラスが特に明るい譯ではない。西側では名古屋のヘフナー(RHf)氏がω=003°W、008°W、012°Wで撮像した。南極冠は明確だが、黄雲の本體の姿を示す境界は見られない。マレ・エリュトゥラエウムなどの暗色模様は稍異様に寫っていて、逆にシヌス・メリディアニは見えていない。クリュセに黄塵が立っているかも知れない。時間的にはこの後、

福井で晴れ間が出て、シーイングも好く、600倍が使え、中島(Nj)氏とMnがω=022°W(Mn)、027°W(Nj)、032°W(Mn)、037°W(Nj)と時間を押して観測した。南極冠は暗帯に囲まれて明白ではあるが、南極冠特有の輝きはなく、明らかにダストに蔽われていることは確かで、これが全面に亙っていることも確かと判斷した。南半球高緯度の朝縁には白い部分が見えていると思われる。マルガリティフェル・シヌスやアウロラエ・シヌスなどの暗色模様は北にずり下がったような形で異様だが、見えないことはない。ただ、ニリアクス・ラクスはRHf氏の畫像ほどには肉眼では見えない。肉眼では黄雲は北端まで届いていると判斷した。全體レモンイエローに近い。以上が黄雲關係の記述であるが、觀測としては、Mo氏から16June(λ=258°Ls)ω=166°Wの畫像、英國のアーディッチ(DAr)氏から28June(λ=266°Ls)ω=165°W、172°Wの像が届いている。後者はまだ黄雲の届かない領域であろうが、この後の觀測がないのが惜しい。南半球夏の黄雲はencircleすることが多いのに、歐羅巴の觀測の出足の遅いが解せない。

♂……In the next issue we shall review the observations made during a fortnight period from 1 July 2007 (λ=268°Ls, δ=6.3") to 15 July 2007 (λ=277°Ls, δ=6.7"). On 15 July the apparent declination D will attain D =15°N

南　政次・村上 昌己 M MINAMI & M MURAKAMI

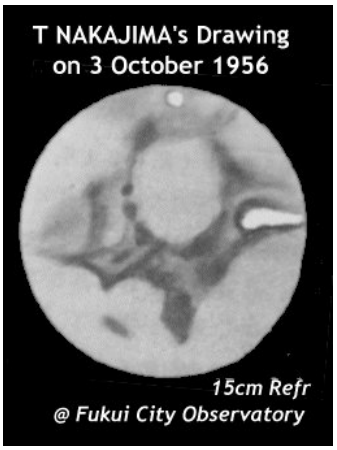
Forthcoming 2007/2008 Mars (9)

The Second Bright Dust in 1956 at Deucalionis R
1956年の輝けるデウカリオン黄塵

Masatsugu MINAMI 南　政 次(Mn)

THE southern summer dust shows a tendency to encircle the Martian globe to the westward direction, generating several resonances of dusts. In 1971, the 1971b Noachis dust storm completely circled the planet at mid-latitudes on the 15th day, and it became impossible to trace the markings about after the 23rd day because the dust became thicker (J L MARTIN, *Icarus* **22** (1974) 175). The Noachis dust in 1956 was also of the southern summer type and encircled by about ten days, and (starting from 20 August 1956 (λ=246°Ls)) began to subside around from 10 September (λ=259°Ls), and so it was about for 20 days that the dust was furious. So the 1956 one was on a reduced scale, but showed an interesting aftermath.

If a dust storm grows thicker rapidly it may become difficult to detect a successive series of the resonant dusts, but if it shows the subsiding state early, some successive dust occurrences may be checked. In 1956, 45 days after the initial Noachis dust outbreak a second brilliant dust was onset in Deucalionis R on 3 October (λ=274°Ls) as described in Tsuneo SAHEKI's book in 1968. From the end of September the area around S Meridiani and M Serpentis was disturbed (sometimes S Meridiani was cleaned up) and on the 1st and 2nd days of October, Deucalionis R showed an irregularity, but on 3 October 1956 the area suddenly brightened with a thick dust cloud bounded by a dark contour, and it was observed by several (well-known) Japanese observers including Shotaro MIYAMOTO, Sanenobu FUKUI, Ichiro TASAKA and others. Among them there was named our colleague Takashi NAKAJIMA (*Nj*) who was only a high school boy at that time, using a 15cm refractor at the Fukui City Observatory. Here we shall show his drwaing on the day. Since it was after opposition (at opposition on 10 Sept, closest on 7 Sept) the dust was new at the morning side. SAHEKI's book shows his own drawing on 4 October when the dust was also brilliant, and another made on 5 October which shows an eastward faint extension of the dust segment. (Unfortunately or strangely however, no record of the appearance of the dust on the morning terminator is described. The phase angle was about ι=20°, and so Deucalionis R must have begun to show up at around ω=



260°W. On 4 Oct at 12h GMT (21h JST) it read ω= 268°W, and hence it was possible to catch and observe the early morning state of the dust reproduction from Japan.) It is reported that the last observations of the dust at Deucalionis R were made by MIYAMOTO and FUKUI on 6 October GMT and the dust was still existent. [MIYAMOTO observed on the day at 11:56GMT ~(ω=249°W~), 14:55~(ω=292°W), 17:13~(ω=326°W): They may cover a vast interval of angles, but are never dense. Next observation was made on 14 October.] No further observation was in Japan. If it was possible to watch until 17h GMT (2h JST) it must have been possible to chase from Japan till 11 October. In addition to the weather condition problem, we may say no definite observational method of the dust cloud was established at that time yet. Anyway the scene went to Europe. However no report of the dust on the European side is included in Richard McKIM, *Memoirs of the BAA*, **44** June 1999 issue (see p75), except for some comments on Henri CAMICHEL's photo on 8 October at Pic etc. The dust stepped on brilliantly, but was forgotten. The apparent diameter on 10 October was still δ=20.6".

To sum up, as in 1971 if the dust rapidly grows it may be hard to decipher each resonance, but if the optical depth of the dust continues to be shallow (or even if it begins to subside), we may be able to check and chase several sequences of dusts in the southern summer season.

南半球の夏に起こる大黄雲は、次から次へと共鳴現象を起こしながら、西進して火星を一廻りしてしまうものである。★1971年のノアキス大黄雲は十五日目ぐらいに一周し、二十二日目ぐらいまでは黄雲を追跡できたわけであるが、それ以後はプロットすることが適わなかったようである(J L MARTIN、*Icarus* **22** (1974) 175)。一方、1956年の大黄雲は南半球型のものであるが、これは略十日で一周、八月20日(λ=246°Ls)に發生して、九月10日(λ=259°Ls)頃から衰退し始めたと言われているから、ほぼ二十日間で下り坂になったわけであって、規模は違うのであるが、1956年特有のことも起こっている。★その一つは、序でにしか語られないことで、然し1956年の場合、大黄雲の衰退過程にあった十月3日(λ=274°Ls)に、デウカリオニス・レギオに明るい黄雲が立ち籠めたという著しい紀録があるので、ここでメモして置きたい。詳しくは佐伯恆夫著『火星とその観測』を參照されたい。★實際には九月の終わり頃からシヌス・メリディアニの周邊やマレ・セルペンティスの周邊などに黄雲が出没していたようで、十月一、二日もいくらか異様さがあった様であるが、三日デウカリオニス・レギオが黄雲で俄然輝いたようである。第一黄雲の發生から四十五日目、Lsにして28°の違いがある。その華々しい紀録--當時多くの有名な観測家が參加している--は佐伯著に譲るとして、その中に足羽山天文臺では當時高校二年の紅顔少年であった中島孝(Nj)氏が含まれているので、英文の部に彼のスケッチを掲載する(Mnは何していたんだと言われそうだが、筆者は當時高校三年後半で、お受験の準備中、そのまま無事合格したのはご承知の通り。お蔭で實は1956年は1954年の1/3も観測していない)。★既に衝を過ぎているから(衝は九月10日、最接近は九月7日であった)、朝方輝いて入って來ている筈である。前記佐伯氏の観測では、4日GMTも相當に明るく、5日GMTには尻尾がヘッラスを細く横切ってアウソニアまで達したようである(少し解せないのは、デウカリオニス・レギオが現れるところの観測が報告されていないことである。當時ι=20°程だから、ω=260°W邊りで出てくると思われる。4Octでも12hGMTでω=268°Wであるから、十分可能であったはずである)。日本からは6日GMTの宮本正太郎氏と福井實信氏の観測が最後になった様であるが、未だ黄雲は健在であったとされる[宮本氏の観測は6Octには11:56~(ω=249°W)、14:55~(ω=292°W)、17:13~(ω=326°W)の三回の観測で網羅的だが稠密さに缺ける。その次は14Octへと飛んでいる]。★日本の観測はここまでの様で(もし17hまで観測可能としても、出現するところは11Oct頃迄は日本からは可能であったと思う。天候の問題もあるが、メソッドが當時は確立していなかったということであろう)、その後歐羅巴に移っていったわけであるが、殘念ながらこちらも紀録がない様である[理査・麥肯(RMk)氏の*Memoirs of the BAA*, **44** June 1999 issueに據れば、8Octにカミシェルの写真があるとされているが、餘り黄雲について具体的ではなく、BAAの観測については觸れられていない-

(p75)]。華々しい黄雲であったが、次のジャンプはしなかったか、観測不行き届きであると思われる。10Octでも視直径はδ=20.6"もあった。★以上、1971年のように全球的になれば、少々の黄塵の発生は不明になるけれども、1956年のような早期終息型の場合には、第二、第三黄雲の發生が考えられるという譯で、そういう場合は怠りない追跡が必要である。 □

便　り
Letters to the Editor

Since this is an Extra Edition, we collect here emails chronologically which are concerned only with the present status of Mars and received from 25 June to 7 July.

★・・・・・・Date: Mon, 25 June 2007 11:25:45 -0500
(Received: Tue 26 June 2007 01:25:45 JST)
Subject: RE: Please check Noachis

Masatsugu: The weather in Houston has been terrible due to strong winds off the Gulf that bring rain every day. Hopefully, things will change! Thanks for the great information, I shall send any images as I can. Best wishes to all in Japan! **Don BATES**

> ***>Date: Mon, 25 June 2007 21:11:43 +0900***
> ***>(Sent: Monday, 25 June 2007 12:11:43 GMT)***
> ***>From: "Masatsugu MINAMI" <vzv03210@nifty.com>***
> ***>To: Donald R BATES Cc: <cmo@mars.dti.ne.jp>***
> ***>Subject: Please check Noachis***
> > Dear Don, How are you going?
> > I suppose at present the area from Iapygia Viridis to Noachis is >facing to you, and as you know it is important to check whether or >not the area is covered by a strong dust streak since the season of >the southern summer of the dusts set in. The area of Mare Serpentis >has been dark and broad so that it may be quite easy to detect the >occurrence of the dust disturbance even if the apparent diameter is >not large enough. I look forward to your observations to be reported >to us soon. ・・・・
> > Looking forward to your contributions on the region of Noachis or >M Serpentis, With best wishes, ***Masatsugu***

★・・・・・・Date: Mon, 25 June 2007 23:01:01 +0200
(Received: Tue 26 June 2007 06:01:01 JST)
From: Christophe Pellier
To: marsobservers@yahoogroups.com
Cc: Masatsugu Minami <vzv03210@nifty.com>,
Masami Murakami <cmo@mars.dti.ne.jp>
Subject: Re: [marsobservers] Dust band in Noachis on June 25?

Hi Jim, This really looks dust! What a news.
The date on the image looks wrong ? 2007/03/29

Christophe PELLER

Jim Melka a écrit :
> Hi, Well, what may be the dustiest region of Mars, seems to be active.
> Please see
> http://tech.ph.groups.yahoo.com/group/marsobservers/photos/view/efe3?b=9
> Besides the possible dust band in Noachis, Mare Serpentis is occluded.
> Hope others can check this. Good seeing **Jim MELKA**

★・・・・・・Date: Tue, 26 June 2007 11:44:37 +0900
Subject: Re: Noachis

Dear Minami-san, Thank you for the alert on Noachis.
I have attached the image of Jim Melka in this e-mail. I have also broken down the channels into R-G-B. Looks like dust to me. The people in the US always have the best luck with first detection of Martian dust storms!! Why, I'm not sure!? We here in Japan and Australia were just very closely watching this area only a few short weeks ago.....

I downloaded the new CMO edition and will read it over tonight. Thanks for the information.

Best regards as always, **Robert HEFFNER**

★・・・・・・Date: Tue, 26 June 2007 13:36:58 JST
From: "Masami MURAKAMI" <cmo@mars.dti.ne.jp>
Subject: Alert on Mars
(Sent by BCc to the Mars colleagues by the use of the mailing list owned by the CMO.)

Dear Mars Colleagues, We have heard this morning (JST) from Christophe PELLIER and others that a Noachis Dust was finally onset as detected by Jim MELKA on 25 June. We wish every observer especially in the US could be on the alert to watch the aftermath. The LCM at 12h GMT is 310 degrees W on 26 June.

We sincerely hope fine and lucky skies on your side,
With best wishes, **Masatsugu MINAMI**

★・・・・・・Date: Mon, 25 June 2007 22:08:51 -0700
(Received:Tue 26 June 2007 14:08:51 JST)
From: "David M Moore"
To: "Masami MURAKAMI" <cmo@mars.dti.ne.jp>,
"Masatsugu MINAMI" <VZV03210@nifty.ne.jp>
Cc: "Jim Melka" ・・・
Subject: Re: Alert on Mars

Sirs: Enclosed please find two images (one red light and the other IR) of Mars made on the morning of the 24th of June. They were taken in relatively poor seeing. These were enlarged 25%, Unfortunately, the blue and green images were unusable.

I had hoped to get these out earlier, but as I am getting ready to leave on vacation they are a bit late. I suspected some dust, but with Mars still tiny and so far away and the seeing poor, I was unsure if it was dust or an artifact in the processing. I certainly did not want to get everyone excited over what could be nothing. Seeing this email confirms my suspicions. I hope the images are of some help.

Please forward this on to others concerned as I put this together rather quickly. Thanks **David M MOORE**

★・・・・・・Date: Tue, 26 June 2007 07:34:54 +0200
(Received:Tue 26 June 2007 14:34:54 JST)
Subject: Re: [marsobservers] Dust band in Noachis

Dear Masatsugu: here is Jim's image. Looks bad for martians. ・・・Best wishes **Christophe PELLIER**

★・・・・・・Date: Tue, 26 Jun 2007 08:02:06 +0200
(Received: Tuesday, 26 June 2007 15:02 JST)
Subject: Re: Alert on Mars

Thanks for the news Minami san. However here in France the weather is absolutly horrible, no window opened in the morning since 10 days, in spite of the not adequate CM value for us in regards to the alert. Hope this will clearing nevertheless. Best regards.

Stanislas MAKSYMOWICZ

★・・・・・・Date: Tue, 26 June 2007 11:29:23 +0000
(Received: Tuesday, 26 June 2007 20:29 IST
Subject: RE: Alert on Mars

Hi Masatsugu, I've attached the dust discovery image for your use. Good seeing, **Jim MELKA**

★・・・・・・Date: Tue, 26 June 2007 13:08:33 +0000
(Received: Tue 26 June 2007 22:08:33 JST)
Subject: RE: Thank you

Hi Masatsugu, You are very welcome. Continued success to your organization. Sincerely, **Jim MELKA**

★・・・・・・***Date: Tue, 26 Jun 2007 23:14:32 JST***
From: "Masami MURAKAMI" <cmo@mars.dti.ne.jp>
Subject: PS:Alert

(Sent by BCc to the Mars colleagues by the use of the mailing list owned by the CMO.)

Dear Mars Colleagues, After the preceding notice, David MOORE, AZ, sent us R and IR images of Noachis dust taken on 24 June where the dust streak is already evident. We hope you will visit the CMO Gallery from

http://www.mars.dti.ne.jp/~cmo/oaa_mars.html

where the image of Jim MELKA, MO, on 25 June, and MOORE's images on 24 June are shown.

We look forward to your activity this week and receiving further work which shall show the development of the Noachis dust. Best regards. **Masami MURAKAMI**

★・・・・・・***Date: Tue, 26 June 2007 19:32:41 +0100***
(Received: Wed 27 June 2007 03:32:41 JST)
Subject: Martian Dust

Dear Masatsugu, Thanks for your alert. Looking back at images to me it really looks as though there was dust active in Stefan Buda's images of April 23rd and 25th. The area around Deucalionis Regio seems rather obscured in his images. I'd be interested to here your comments....

I have 13 nights of Mars images to send you between May 23-June 8th - these will follow when processing is completed..... Best Wishes **Damian PEACH**

★・・・・・・***Date: Tue, 26 June 2007 21:09:35 -0400***
(Received: Wed 27 June 2007 10:09:35 JST)
Subject: Re: PS:Alert

Images from this morning showing progress of dust activity. Best Wishes **Ed LOMELI**

★・・・・・・***Date: Wed, 27 June 2007 01:49:35 -0700***
(Received: Wednesday, 27 June 2007 17:49 JST)
Subject: Mars 6/27

Hello Masami- attatched is an image recorded under poor conditions (fair if you consider the elevation at he time) through a Baader IR-pass filter. **Sean WALKER**

★・・・・・・***Date: Wed, 27 June 2007 07:21:43 EDT***
(Received: Wednesday, 27 June 27, 2007 20:21 JST)
Subject: Re: PS:Alert

Hi all - Mars was imaged June 27th between 9:30 UT and 10:45 UT. The seeing was average.

To follow the dust, there is something there toward the morning limb. Syrtis major is visible and Hellas looks quite dark. Again, there is some brightening in toward the morning limb. The South Pole appears dull.

I don't have time to process while I will be on my way to work. I will process the images tonight.

So far, so good! **Frank J MELILLO**

★・・・・・・***Date: Wed, 27 June 2007 14:52:08 -0400***
(Received: Thursday, 28 June 2007 3:52 JST)
Subject: Re: PS:Alert

Masami, Here's a Mars from this morning from the states June 6, 2007 @ 09:59UT, CM 270.67

http://www.atlantaastronomy.org/CEWMA/mars_062707_set3.htm

Thanks, **Larry OWENS**

★・・・・・・***Date: Wed, 27 June 2007 21:26:35 +0200***
(Received Thu 28 June 2007 04:26:35 JST)
Subject: Re: Martian Dust

Dear Masatsugu and Damian, I can't say really more than you on Stefan's april images. The resolution is simply not enough to judge, although, if I were to choose, I would say no... or, at least, the chances that dust was getting lifted there are small, since all the other dark markings are perceptible, and the area is not bright, just clear...

I would really hope to observe Mars now that a real dust has been imaged, but this beginning of summer is rather unbearable (clouds, fresh temperatures, rain... I guess Damian knows even worst conditions. 10°C in London this morning I have heard on radio !). These days I'm wearing again winter clothes :-(

Best wishes, **Christophe PELLIER**

Masatsugu MINAMI a écrit :

>Dear Damian, First of all, I would like to send a word of congratulations on
>your recent success at Barbados. I of course look forward to receiving
>your Mars images made there soon.
> As to the brightness of Deucalionis R and Noachis on Buda's images on
>23 and 25 April, I cannot deny nor confirm the presence of dust
>there. I know the dust disturbances frequently occur earlier than 250
>degrees of Ls and if Buda's case is a dust expansion, it is more or
>less quite diffused, and so at least we may say it was not the
>initial state of the dust disturbance.
> What we could expect this time (that is, when the apparent diameter
>is tiny) was to pin down the emergence of a bright dust. And I think
>this was what Dave Moore and others did on 24 June and so on.
>Henceforward we may easily discuss any expansion of airborne dust for
>a while.
> One thing which was below my expectations was that Mare Serpentis
>looks to survive. Please find attached the case in 1956 (a rough
>sketch by Shiro Ebisawa on a card from him to Tsuneo Saheki. This is
>not the original drawing; Just a sketch of the original drawing by
>himself) where the cudgel-like dust crossed M Serpentis toward
>Noachis. I so expected this year the coming dust could be easily
>found because of the dark and broad presence of M Serpentis. On the
>case of the Buda's in April, no bright matter crossing the dark M
>Serpentis was present, and so I did not pay much attention to the
>Deucalionis R. Was I wrong?
> At any rate it is difficult to discuss the disturbance when the
>apparent diameter is small and the observation time is quite limited.
>So it is important to encounter with the initial state. Furthermore
>Deucalionis R and Noachis (as well as Pandorae Fr) change year to
>year while we can seldom put forward any reason. Possibly sometimes a
>fallout of dust, or just a airborne dust, or contrarily a washout by
>a usual wind. (To me Noachis and Deucalionis R are normally bright
>ever since 1954 when I believe no dust storm was witnessed. The
>aspect in November 2005 was rather extraordinary to me.) ・・・
> I would like to send Cc of this email to Christophe also to hear his
>opinion on Buda's work in April.
> Thank you for your concern, and I look forward to your further
>activity in this Mars apparition. With best wishes, ***Masatsugu***

★・・・・・・***Date: Wed, 27 June 2007 15:16:07 -0700***
(Received: Thu 28 June 2007 07:16:07 JST)
Subject: Re: Thank you

Hi Masatsugu, The seeing was very good this morn. Feel free to use attached image. Dust looks to have spread across Iapygia Viridis, N. Hellas, S. Mare Hadriacum. New dust cloud in SM and another in Isidis Regio. Possible cloud just East of SPC. Good seeing,

Jim MELKA

★・・・・・・***Date: Wed, 27 June 2007 23:51:52 +0100***
(Received: Thu 28 June 2007 07:51:52 JST)
Subject: Re: Martian Dust

Dear Masatsugu, Christophe, Thanks for your replies. I asked Richard not long after the images were taken and he also agreed there was not enough evidence or imagery to be sure.

To me comparing with the 2005 imagery, the area of Pandorae Fretum looks notably lightened in Buda's images on 23-25 April. Of course it does not indicate active dust, and its now hard to really see if any change has occured in this area since there is of course now active

dust present in the area!

I guess the picture will become clearer later in the apparition, provided a major dust storm does not develop!

Thanks to both of you for your replies.

P.S. Christophe - the weather here has been utterly terrible since i returned. Parts of the northern UK are under more than 1m of water!!. The temperatures are remarkably cool also.....it can only improve. I had hoped to now begin on Mars from here, but with current conditions and a dismal forecast its just not possible....

Damian PEACH

★・・・・・・***Date: Thu, 28 June 2007 00:26:17 EDT***
(Received:Thu 28 June 2007 13:26:17 JST)
Subject: Mars: June 27th, 2007

All - I have posted my images of Mars June 27th between 9:43 UT and 10:31. These images were taken within one hour after sunrise. The sky was muggy but the seeing was just average. So, it wasn't too bad.

http://hometown.aol.com/frankj12/mars2007-08.html

Most dark features are visible along with Sytis Major in the center. As far as the dust concern in around Noachis area, it is located near the morning limb south side. I'm sure if I would have suspect dust at this angle. Still, it is difficult to tell and it is not exactly a clear view.. But it certianly looks brighter in that area. The 10:31 UT image shows the best. Hellas looks quite dull and so the SPC which is visible faintly.

The images were taken throught the Wr. #25 red filter to maximize the contrast if the dust is on the surface.

I hope some of you observed and imaged the same time with me. More later... **Frank J MELILLO**

★・・・・・・***Date: Thu, 28 June 2007 03:47:14 EDT***
(Received: Thu 28 June 2007 16:47:14 JST)
Subject: Mars regional dust storm alert

Dear Mars Observer, On 2007 June 25 Jim Melka (USA) informed me about a dust storm spreading west from the northern Hellas basin across Noachis. The storm over Noachis was bright yellow, and in extent is typical of one already a few days old.

Images by Ed Lomeli (USA) on June 26 showed the event to have cut across Hellespontus in two places, and to have progressed as least as far as Argyre. As of June 27 the storm also now cut across Sinus Sabaeus in Lomeli's images, spilling into Aeria-Arabia, whilst Melka's image of yesterday shows that all of Hellas is full of dust, the original core being in the NW corner, and that activity is further developing or spilling over Ausonia-Hesperia to the east.

Both the timescale and nature of this development are entirely typical for Hellas events, and the seasonal date is also normal.

Any further observations of this event - which has now become Regional in status - are requested.

Richard McKIM, *Director, BAA Mars Section*

★・・・・・・***Date: Thu, 28 June 2007 04:34:30 -0700***
(Received: Thu 28 June 2007 20:34:30 JST)
Subject: RE:Re: PS:Alert

I am preparing at the moment to set up this morning. Although conditions do not look good with a jet stream, I'll try anyway. Enclosed is yesterday morning's observations and Richard McKim said of my image that the bright patch on the f. side maybe near Argyre. Best Wishes, **Ed LOMELI**

★・・・・・・***Date: Thu, 28 June 2007 20:44:46 +0900***
Subject: Mars-2007-06-27-KUMAMORI

熊森照明です。撮影準備中に曇ってきました。雲間からのショットで、慌てて撮影しました。十分な状況でなかったので、火星像にあまり自信はありません。よろしくお願いいたします。

Teruaki KUMAMORI

★・・・・・・***Date: Thu, 28 June 2007 11:20:02 -0700***
(Received: Fri 29 June 2007 03:20:02 JST)
Subject: RE:Re: Thank you

Hi Masatsugu, Thanks for displaying my images. I really lucked out on the seeing both mornings. Sorry to hear about the rainy season, I couldn't go out today because of rain and it's supposed to rain tomorrow also. I will try to follow the dust storm. **Jim MELKA**

★・・・・・・***Date: Fri, 29 June 2007 01:06:22 +0100***
(Received: Fri 06/29/2007 09:06:22 JST)
Subject: Mars 2007 June 28

Here is a start to my Mars imaging for the 2007-8 apparition. Must be one of the first from the UK. Altitude was up to 38 deg., seeing was extremely poor. The sky was bright, so only capture with the longwave IR filter was attempted. I am surprised at what came out considering the poor quality of the AVIs. Hopefully the start of a good season. **David ARDITTI**

★・・・・・・***Date: Thu, 28 June 2007 17:09:18 -0700***
(Received: Fri 29 June 2007 09:09:18 JST)
Subject: RE: Mars 2007 June 28

Nice David- I captured it for the first time on the 27th (attached). **Sean WALKER**

★・・・・・・***Received: Fri 29 June 2007 14:47:15 JST***
Subject: Mars June 28, 2007

Hello, Here are my images from Thursday morning here. Best Wishes, **Ed LOMELI**

★・・・・・・***Received: Sat 30 June 2007 03:14:36 JST***
Subject: Mo26June07

お電話有難うございます。なかなか処理できず送ることが出来ません。電話でご指示のあった26Juneを送ります。B光が上手くいきません。もう少ししたら観測態勢に入ります。

Yukio MORITA

★・・・・・・***Received: Sat 30 June 2007 06:18:30 JST***
Subject: Mo29June07

お早うございます。「とりあえず」の像です。この前後もRGBNで撮っていますので、今日帰宅してから処理します。 **Yukio MORITA**

★・・・・・・***Received: Sat 30 June 2007 17:04:32 JST***
Subject: 火星画像 Ak Mars

こんにちは、今朝の火星を添付します。天気は雨季で朝方に雨が連日降り、なかなか撮れません。撮像のコンビネーションが駄目で、今後調整が必要です。取りあえず送ります。**Tomia AKUTSU**

★・・・・・・***Received: Sun 1 July 2007 03:06:20 JST***
Subject: Mars June 29, 2007

Good Morning Masatsugu, Hellespontus looks to be completely covered. I was able to capture more this Saturday morning. Processing more data at the moment.

Best Wishes, **Ed LOMELI**

★・・・・・・***Received: Sun 1 July 2007 14:05:02 JST***

Subject: Mars June 30, 2007

Hello again, Images from this morning and it looks like I could have another chance tomorrow morning.
Best Wishes, **Ed LOMELI**

★・・・・・・***Date: Sun, 1 Jul 2007 08:07:08 -0500 (Received: Sunday, July 01, 2007 22:07 JST)***
Subject: Image 07-01-07 1040UT

Greetings all, I'm still most likely pushing my 8 inch scope too far for 6.3 arcsecs, but some useful info can be had from this image. The albedo features, although somewhat faint, match up nicely with the previewer. Hesperia might be showing some dust activity. No NPH seen this morning. No trace of the SPC. I think its safe to say the SPC is totally obscured by dust. The N. Hemisphere is still looking fairly clear based on -this- image. http://marswatch.amaonline.com/07-01-071040UT.jpg
Regards, **Joel WARREN**

★・・・・・・***Received: Sun 1 July 2007 22:33:11 JST***
Subject: Dusty Mars from Japan - 2007/06/30

Dear CMO, Here is a set of images of dusty Mars from this morning. Both seeing and transparency were poor - however the poor conditions were consistent (no large clouds or seeing meltdown etc.) - so I was able to take some consecutive images of dusty Mars. Most of the evening limb features including Sinus Meridian and Sinus Sabaeus etc. are obscured by dust as you can see.
I hope to be able to send you some color captures in the week to come, if we get a break from the rainy season. How were the views from Fukui this weekend?
Best regards as always, **Robert HEFFNER**

★・・・・・・***Received: Mon 2 July 2007 01:06:41 JST***
Subject:Bates Mars image 06/29/2007

Hello Gentlemen: After weeks of rain, I finally got a quick glimpse at Mars. Seeing conditions, however, were poor, and few usable frames were available. I will be in Amsterdam, Netherlands this week, so no imaging for a while. All the best, **Don BATES**

★・・・・・・***Received: Mon 2 July 2007 02:10:53 JST***
Subject: Mo29Jun07

やっと29Juneが出来ました。お送りします。表面は処理してもコントラストが悪く、はっきりしません。今日は少し晴れ間がありましたが、明け方は多分駄目でしょうね。水曜ぐらいには可能性があるようで、期待しています。(先にお送りした29Juneは今回のものに入っていません。)
Yukio MORITA

★・・・・・・***Received: Mon 2 July 2007 03:13:41 JSTRe:***
Subject: RE:Image 07-01-07 1040UT

Masatsugu, Very nice hearing from you. I'm glad you could use my image. Hopefully this will be an interesting apparition. I'll certainly keep sending you my images and I do appreciate you using my 2005 images in CMO #332. Best wishes, **Joel WARREN**

★・・・・・・***Received: Mon 07/02/2007 10:51:52 JST***
Subject: RE:Mars June 30, 2007

Enclosed are images from this morning. Conditions worsened as the day grew. The last color image looks to show some sunlit dust on the north western quadrant around the limb. Syrtis Major is more discernable today and the SPC can not be seen. Best Wishes,
Ed LOMELI

★・・・・・・***Received:Mon 2 July 2007 17:08:38 JST***
Subject: Re: RE:Dusty Mars from Japan - 2007/06/30

Dear Minami-san, I'm glad the images from the 30th were of some value, despite the poor conditions. I keep a close eye on the jet stream and upper level winds here: http://cimss.ssec.wisc.edu/tropic/real-time/westpac/winds/winds-dlm.html and recently the seeing has not been so great for Jupiter. We usually have a weak jet stream during this summer period, so hopefully conditions will improve for Mars so I can send some high quality images (some of my best in 2005 were in the summer).
I've been watching the developments on Mars from the American side on CMO, and the dust storm has really spread wide. Hellas really looks strange all covered over. It will be very exciting to see how it unfolds in the coming weeks.
I will try to image again this week if (1) clear a.m. skies can be forecasted and (2) some good seeing can also be predicted.
You can contact me with any imaging alerts at your convenience. I plan to image Mars a few more times this month due to the dust activity, and then will take a break in August to pursue other interests. Best regards,
Robert HEFFNER

★・・・・・・***Received:Tue 3 July 2007 11:58:56 JST***
Subject: Mars Dust Storm Image July 2nd

Hi Masatsugu, Seeing was rough this morning. Please use attached photo in your database. Interesting deveopment; Looks like a large cloud covers the SPC and extends Northward along the terminator to Eridania. Due to its whitish colorI'm speculating that the cloud might consist of ice covered dust particles. Hellas appears dust covered as well as Ausonia but Mare Hadriacum and Xanthus are visible. Comments welcome always. Good seeing, **Jim MELKA**

★・・・・・・***Received: Tuesday, 3 July 2007 12:02 JST***
Subject: Mars 6/30

Attached are my results from 6/30. Regards,
Sean WALKER

★・・・・・・***Received: Tue 3 July 2007 14:19:46 JST***
Subject: Mars July 2, 2007

Continuing coverage of dust activity-conditions about average. Tomorrow looks good again. Best Wishes,
Ed LOMELI

★・・・・・・***Received: Wed 4 July 2007 04:10:00 JST***
Subject:RE:Mars Dust Storm Image July 2nd

You are welcome Masatsugu. Ed Lomeli's images are excellent and our July 2nd images show the same details. A question, in your annotation, what does "ι=42" mean? Thanks. **Jim MELKA**

★・・・・・・***Received: Wed 4 July 2007 10:09:54 JST***
Subject: RE:RE:Mars Dust Storm Image July 2nd

Hi Masatsugu, The 'noon' angle seems very relevant. And at this time it is increasing maybe because of the eccentricity of Mars' orbit. Sorry that you didn't get a good look at Mars; I was clouded out too. I'll try again tomorrow. Sincerely, **Jim MELKA**

★・・・・・・***Received: Wed 4 July 2007 14:04:28 JST***
Subject: Mars July 3, 2007

The storm rages on ... it looks like some clouds above

the SPC. Best Wishes, **Ed LOMELI**

★・・・・・・***Received: Thu 5 July 2007 10:43:23 JST***
Subject: Dust storm Increasing

Hi Masatsugu, Image attached recorded on July 4, 2007 first day of summer in the Southern Hemisphere at 11:22UT. Seeing was poor here with clouds. SPC not visible. Looks like dust expanding from the south polar regions to the North covering southern parts of Mare Cimmerium and Mare Tyrrhenum. Good seeing.

Jim MELKA

★・・・・・・***Received: Thu 5 July 2007 12:51:20 JST***
Subject: Mars July 4, 2007

Hello Masatsugu, Yes, summer has begun here. Today was above 100 degrees F (≒ 38°C).

I still have much to learn about Mars geography/ meteorology. Depressiones Hellesponticae has already rotated beyond my cutoff around 7:00 am local time. The air begins to warm up quickly and as well focus changes. The easternmost part of Hellespontus would be on/near the limb on my images today.

I could not see the SPC since it appears like lighter colored clouds are over it. Some faintness, but Mare Cimmerium and Mare Tyrrhenum can be seen. I included the same image one without color channel alignment and the other with-northern hemisphere color looks better without. Best Wishes, **Ed LOMELI**

★・・・・・・***Received: Fri 6 July 2007 01:07:56 JST***
Subject: Mo04July07

今朝は、晴れの予報でしたので早くから待機していましたが、少々厚めの薄雲？がかかっていて、一応セットで撮ったのですが、処理してみると極僅かしか、良いものがありませんでした。またしばらくは雨の予報です。処理は、コントラストを抑えています。 **Yukio MORITA**

★・・・・・・***Received: Fri 6 July 2007 08:46:49 JST***
Subject: Mars 3 July 2007

Hi, Attached is an image of Mars on 3 July 2007.
Thanks, **Ethan ALLEN**

★・・・・・・***Received: Fri 6 July 2007 12:47:06 JST***
Subject: Mars July 5, 2007

This morning's activity with lots of airborne dust. Tomorrow morning looks like we could be receiving clouds in our area; hopefully I will have no trouble.
Best Wishes, **Ed LOMELI**

★・・・・・・***Received: Fri 6 July 2007 19:13:05 JST***
Subject: Argyre bright? - Mars 2007/07/05

Dear CMO, Here is an image of dusty Mars from this morning July 5th UT. Conditions were rather poor but at least the sky stay cleared which was a minor miracle. Seeing was affected by the jet stream among other factors.

Argyre looks bright. Sinus Sabaeus & Sinus Merdiania look like they are clearing up along with Hellas and Syrtis Major which have largely cleared up already. Bright patch seen near Margaritifer S. SPC was visually observed and appeared white but dull.

Hopefully the conditions will improve here soon, as it is frustrating imaging the storm in poor conditions, similar to the 2005 event. Best regards, **Robert HEFFNER**

★・・・・・・***Received: Sat 7 July 2007 01:48:02 JST***
Subject: Re: Mars 3 July 2007

Hi Masatsugu, You are welcome. My image of 3 July was the first of this apparition. I will send more images as soon as possible. Best regards, **Ethan ALLEN**

★・・・・・・***Received: Sat 7 July 2007 09:53:13 JST***
Subject: Re: RE:Argyre bright? - Mars 2007/07/05

Minami-san, Thanks for the comments. Looking at the weather satellite, I think it may clear up for Sunday morning. Hopefully the seeing will improve so I can take some RGB images. Hope you have clear skies in Fukui soon.

Where are all the European observers btw? No images of Solis Lacus (head on) have been sent from Europe. I hope they put aside ego (it's hard to get "pretty" images of Mars at this stage unless conditions are really good) and submit some observations. Talk to you soon.

Robert HEFFNER

シー・エム・オー・フクイ　中 島　孝　*Nj*

★前号報告以降、佐 藤　健(394)様よりカンパを頂戴しました。有難うございました。不一

☆ Kasei-Tsûshin CMO (*Home Page*: **http://www.mars.dti.ne.jp/~cmo/oaa_mars.html**)
『火星通信』#333 (10 July 2007) 編集：**南　政 次(*Mn*)、村上 昌己(*Mk*)、中 島　孝(*Nj*)**
Extra Issue **西田 昭徳(*Ns*)、常間地 ひとみ(*Ts*)**
Edited by: **Masatsugu MINAMI, Masami MURAKAMI, Takashi NAKAJIMA, Akinori NISHITA and Hitomi TSUNEMACHI**
発行　Published by/for : **東亞天文学会** OAA **火星課** Mars Section

☆ *Any e-mail to CMO is acknowledged if addressed to*
cmo@mars.dti.ne.jp (Masami MURAKAMI at Fujisawa)
vzv03210@nifty.com (Masatsugu MINAMI at Mikuni-Sakai)
☆ *Usual mails to CMO are acknowledged if addressed to*
Dr Masatsugu MINAMI, 3-6-74 Midori-ga-Oka, Mikuni, Sakai City, Fukui, 913-0048 JAPAN
〒913-0048 福井県坂井市三國町緑ヶ丘3丁目6-74　南　政 次 (☎/FAX 0776-82-6222)