

MARS

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OBSERVATIONS

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From this issue we return to one-month review. This time we review the observations secured during the one month period

from 16 January ($\lambda=018^\circ\text{Ls}$) to 15 February 2008 ($\lambda=033^\circ\text{Ls}$),

during which the apparent diameter δ went rapidly down from 14.1" to 10.4". The central latitude ϕ was 2°S . The phase angle i augmented from 18° to 32° .

The sky condition remains dismal. At the rear side of Japan (including Fukui) seldom visits any lull, and the area facing to the Pacific Ocean (including Yokohama) has been annoyed by the Jet stream. AKUTSU (Ak) who stays in Cebu, the Philippines, is complaining about *La Niña*.

♂.....今回から一ヶ月分のレビューとする。従って今回は16Jan2008から15Feb2008迄でその間、季節は $\lambda=018^\circ\text{Ls}$ から 033°Ls に進捗した。視直径 δ は減るのが早く14.1"から10.4"に落ちた。中央緯度 ϕ は 2°S で北極雲の見辛い状況にある。位相角 i は 18° から 32° に増え、見窄らしくなっている。

♂.....The observations received this time are as follows: A total of 47 observers sent us their observations. 今回は次の様に47名の観測者から報告を受けた。天候の所為か、観測が揃わない。北半球はどこもそうかも知れないが、空の状態が好くない。日本はずっと西高東低が支配している状態である。フィリピンの阿久津(Ak)氏もラニーニャ現象を嘆いている。

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

3 Sets of RGB Images (22 January; 6, 9 February 2008) f/40 \times 23cm SCT with a DMK21AF

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

11 Sets of RGB + 2 B + 9 IR Images (23, 26, 27, 30, 31 January; 1, 5, 11 February 2008)
f/33 \times 36cm SCT with a DMK21AF04

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

2 Sets of RGB + 1 IR Images (19 January; 9 February 2008)
f/41 \times 31cm speculum with a DMK21AF04

AMADORI, Vittorio ヴィットリオ・アマドリ (VAm) 義大利 Soiano del Lago, Italia

2 Sets of RGB + 2 IR Images (26, 29 January 2008) 27cm speculum with Vesta Pro

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

4 Sets of RGB Images (16, 17, 28 January; 1 February 2008) 36cm SCT with a SKYnyx 2-0

BERDEJO, Alberto アルベルト・ベルデホ (ABd) Zaragoza, España

1 Colour Image (19 January 2008) 24cm SCT

BOSMAN, Richard リシャルト・ボズマン (RBs) 尼徳蘭 Enschede, Nederland

1 Set of RGB + 2 colour Images (22 January; 4, 11 February 2008)
f/50 \times 28cm SCT with an ATK-2HS

- CASQUINHA, Paulo** パウロ・カスキニャ (*PCq*) 葡萄牙 República Portuguesa
8 Sets of RGB Images (17, 19, 20, 24, 26 January 2008) *f*/44 \times 36cm SCT with a SKYnyx 2-0M
- CASTELLÀ, Jaume** ファウメ・カステイヤ (*Jct*) Badalona, España
3 Sets of RGB Images (28 January; 5, 9 February 2008) *f*/50 \times 28cm SCT with a DMK21F04.AS
- DELCROIX, Marc** マルク・デルクロア (*MDc*) 法國 Tournefeuille, France
7 Sets of RGB + 6 IR Images (19, 20, 25, 26, 28 January; 2, 15 February 2008)
f/58 \times 25cm SCT with SKYnyx 2-0M
- DUPONT, Xavier** グザヴィエ・デュボン (*XDp*) 法國 Saint Roch, France
4 Sets of RGB + 1 Colour Images (22, 26 January; 2, 7 February 2008)
f/53 \times 18cm speculum with a ToUcam Pro I
- EDWARDS, Peter** ピーター・エドワーズ (*PEd*) 英國 Horsham, UK
1 Colour Image (16 January 2008) *f*/30 \times 28cm SCT with a Modified ToUcam B&W
- FERNÁNDEZ GÓMEZ, Francisco José** フランシスコ=ホセ・フェルナンデス=ゴメス (*FFn*)
西班牙 Ourense, España
3 Colour Images (22 January; 14, 15 February 2008) 20cm SCT with a Meade LPI
- FLANAGAN, William D** ビル・フラナガン (*WFl*) 德克薩斯・休斯敦 Houston, TX, USA
5 Sets of RGB Images (7, 14 February 2008) *f*/36 \times 36cm SCT with a Lu075M
- FUMEGA Ucha, Camilo** カミロ・フメガ (*CFm*) 西班牙 Ourense, España
2 Colour Images (7, 12 February 2008) *f*/30, 35 \times 20cm speculum with a ToUcam pro
- GHOMIZADEH, Sadegh** サデグ・ゴミザデ (*SGh*) 伊朗・德黑蘭 Tehran, Iran
6 Sets of RsGB + 11 Colour + 1 B Images
(16*, 17*, 19*, 24, 25, 29 January; 1, 2, 6, 7, 9, 13 February 2008)
f/30, 37, 40 \times 28cm SCT with with a SKYnyx 2-0M & ToUcam Pro III*
- GÓMEZ, Pepe** ペペ・ゴメス (*PGm*) 西班牙・塞維利亞 Santa Bárbara, Sevilla, España
14 Colour Images (18, 20, 22, 23, 27, 29 January; 4, ~ 7, 9, 13, 15 February 2008)
13cm Maksutov-Cassegrain with a ToUcam Pro 830K
- GORCZYNSKY, Peter** ピート・ゴルチンスキー (*PGc*) 康涅狄格 Oxford, CT, USA
7 Sets of RGB + 5 IR Images (17, 19, 22, 24 January; 4, 9, 15 February 2008)
f/42 \times 18cm Maksutov-Cassegrain with a DMK21AF04
- GRAHAM, David** デイヴィッド・グレアム (*DGh*) 英國・北約克夏 Catterick, N Yorkshire, UK
1 Drawing (17 January 2008) 250 \times 23cm Maksutov Cassegrain
- HANCOCK, Ian R** イアン・ハンコック (*IHn*) 英國・坎特伯雷 Canterbury, UK
1 R Image (16 January 2008) *f*/30 \times 25cm SCT with a Lu075M
- HERNANDEZ, Carlos E** カルロス・ヘルナンデス (*CHr*) 佛羅里達・邁阿密 Miami, FL, USA
1 Set of Colour Drawings (27 January 2008) 248/359 \times 23cm Maksutov-Cassegrain
- HIDALGO-TORTOSA, Emilio** エミリオ・イダルゴ (*EHd*) 西班牙 La Carolina, Jaén, España
6 Colour Images (16, 18, ~ 20, 24 January 2008) 30cm Dall-Kirkham, ToUcam Pro / ICX 424
- KARRER, Michael** ミヒャエル・カツレル (*MKr*) 奧地利 St Radegund, Österreich
1 IRGB Images (11 February 2008) *f*/22 \times 44cm speculum with a SKYnyx 2-1M
- KIDD, Simon D** サイモン・キッド (*SKd*) 英國 Welwyn, Herts, UK
4 Colour Images (6, 8, 12, 15 February 2008) *f*/50 \times 36cm SCT with a DBK21AF04.AS
- KOWOLLIK, Silvia** シルヴィア・コヴォリク (*SKw*) 德國 Ludwigsburg, Deutschland
1 Set of RGB + 1 IR Images (7 February 2008) 80cm Cassegrain* with a DMK31AF03.AS
*Zollern-Alb Observatory
- KUMAMORI, Teruaki** 熊森 照明 (*Km*) 堺 Sakai, Osaka, Japan

- 3 Colour + 1 IR Images (24, 26, 27 January 2008)
f/70@20cm Dall-Kirkham with a DMK21AF04&DFK21AF04
- LAWRENCE, Pete** ピート・ローレンス (*PLw*) 英國 Selsey, WS, UK
2 Sets of RGB Images (26, 30 January 2008) f/67@36cm SCT with a SKYnyx2-0M
- LEWIS, Martin R** マーチン・ルイス (*MLw*) 英國 St. Albans, UK
1 Colour Image (16 January 2008) f/46@22cm Dobsonian with a DBK21AF04 AS
- LOMELI, Ed** エド・ロメリ (*ELm*) 加利福尼亞 Sacramento, CA, USA
4 Sets of RGB + 4 IR Images (19 January 2008) f/40@23cm SCT with a DMK21BF04
- MAKSYMOWICZ, Stanislas** スタニスラス・マクシモヴィッチ (*SMk*) 法國 Ecquevilly, France
10 Sets of Drawings (16, 22*, 25**, 27*** January; 2**, 6*, 7**, 8, 9, 12** February 2008)
100x~305x20cm Cassegrain, 10cm refractor*, 15cm speculum**, 15cm refractor***
- MELILLO, Frank J** フランク・メリッロ (*FMI*) 紐約 Holtsville, NY, USA
11 Colour Images (17, 22, 24 January; 9 February 2008) 25cm SCT with a ToUcam pro II
- MELKA, James T** ジム・メルカ (*JMI*) 密蘇里・聖路易斯 St. Louis, MO, USA
2 Colour Images (16, 20 January 2008) 30cm speculum with a DBK21FA01AS
- MINAMI, Masatsugu** 南 政次 (*Mn*) 福井 Fukui, Fukui, Japan
21 Drawings (19 January; 1, 4, 8, 10 February 2008) 300, 400, 600x20cm ED refractor*
*Fukui City Observatory 福井市自然史博物館天文臺
- MORITA, Yukio** 森田 行雄 (*Mo*) 廿日市 Hatsuka-ichi, Hiroshima, Japan
16 Sets of RGB + 16 IR Images (21, 27, 31 January; 4, 7, 10 February 2008)
25cm speculum with a Lu075M
- MURAKAMI, Masami** 村上 昌己 (*Mk*) 藤澤 Fujisawa, Kanagawa, Japan
12 Drawings (25, 27 January; 1, 5 February 2008) 320x20cm F/8 speculum
- NAKAJIMA, Takashi** 中 島 孝 (*Nj*) 福井 Fukui, Fukui, Japan
8 Drawings (19 January; 10 February 2008) 300, 400x20cm 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
20 Drawings (17, 19, 25, 27 January; 1, 7, 10, 15 February 2008) 400x20cm Astro ED refractor
- PARKER, Donald C** ドン・パーカー (*DPk*) 佛羅里達・邁阿密 Miami, FL, USA
5 Sets of RGB Images (19, 24, 25, 31 January; 15 February 2008)
f/47@41cm F/6 speculum with a SKYnyx 2-0M
- PELLIER, Christophe** クリストフ・ペリエ (*CPI*) 法國 Seine-St-Denis, France
1 Set of RGB + 1 IR Images (7 February 2008) f/52@25cm Cassegrain with a SKYnyx 2-0M
- PHILLIPS, Jim** ジム・フィリップス (*JPh*) 南卡羅萊納 Charleston, SC, USA
1 Colour Image (29 January 2008) 20cm F/9 TMB with a SKYnyx Color
- SÁNCHEZ, Jesús R** ヘスス・サンチェス (*JSc*) 西班牙・科爾多瓦 Córdoba, España
2 Colour Images (21, 30* January 2008) 25cm SCT & 26cm Mak-Cass* with a DMK21AF04AS
- SCHULZ, Robert** ロベルト・シュルツ (*RSz*) 奧地利 Wien, Österreich
7 Sets of IRGB Images (24 January; 9, 10 February 2008) f/31@32cm speculum with Lu075M
- SHARP, Ian D** イアン・シャープ (*ISp*) 英國 Ham, West Sussex, UK
1 Set of RGB + 1 Colour Images (27 January; 6 February 2008) 28cm SCT with a SKYnyx 2-0M
- SOLDEVILLA-GONZALEZ, José Antonio**
ホセ=アントニオ=ソルデビーヤ=ゴンサレス (*Jsd*) 西班牙 Canyelles, nr Barcelona, España
8 B&W + 1 Colour Images (18/19, 20, 26 January; 9* February 2008)
25cm (F/5) speculum with a RCA plug camera & Luna 1,3 color camera*
- TEICHERT, Gérard** ジェラルド・タイシエルト (*GTc*) 法國 Hattstatt, France

3 Drawings (22 January; 12, 13 February 2008) 330, 350×28cm SCT

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

10 Sets of RGB + 5 Colour + 4 B Images (16, 27 January; 6, 8, ~12 February 2008)
f/500×36cm SCT with a SKYnyx 2-0

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

5 Sets of RGB + 1 Set of IRGB Images (16, 21 January; 4*, 4/5*, 6* February 2008)
32cm speculum & 25cm Dall-Kirkham* with a DMK21AU04AS

ZURUTUZA, Ignacio ナチヨ・スルトウサ (*NZr*) 西班牙 La Fresneda, Asturias, España

1 Colour + 1 IR Images (6, 9 February 2008) f/53×28cm SCT with a DMK21AF04

♂.....a) **Argyre Cloud:** In the preceding period at around $\lambda=016^\circ\text{Ls}$, the cloud at Argyre was not fully persistent, while this period it was seen thick rather constantly, though on the later days it might have been weaker. On 16 Jan ($\lambda=018^\circ\text{Ls}$) it was shot clearly near the CM on the images of WALKER (*SWk*) at $\omega=026^\circ\text{W}$, and of ARDITTI (*DAr*) at $\omega=035^\circ\text{W}$, and at the evening side of MELKA (*JMI*) at $\omega=078^\circ\text{W}$. On 17 Jan ($\lambda=019^\circ\text{Ls}$) MELILLO (*FMI*) took it at $\omega=083^\circ\text{W}$, 095°W . On 19 Jan ($\lambda=020^\circ\text{Ls}$), PARKER (*DPk*) gave a detailed description at the morning side on the images at $\omega=029^\circ\text{W}$. See also GORCZYNSKI (*PGc*)'s images at $\omega=038^\circ\text{W}$. At the evening side, ALLEN (*EAl*) produced it at $\omega=071^\circ\text{W}$, and LOMELI (*ELm*) did at $\omega=071^\circ\text{W}\sim 087^\circ\text{W}$. On 20 Jan ($\lambda=020^\circ\text{Ls}$), *JMI* gave an image at $\omega=040^\circ\text{W}$, but the cloud looks weak. On 22 Jan ($\lambda=021^\circ\text{Ls}$) *FMI* shot at $\omega=040^\circ\text{W}$, 050°W , and *PGc* at $\omega=049^\circ\text{W}$. On 24 Jan ($\lambda=022^\circ\text{Ls}$) *FMI* chased the cloud from before the showing-up at the terminator at $\omega=346^\circ\text{W}$, 356°W , 008°W , 019°W , and at 031°W : The brightness remains unchanged. On the same day *DPk* produced a good set of images at $\omega=007^\circ\text{W}$. Moving to Japan the evening Argyre cloud was watched visually by one of us (*Mk*) on 25 Jan ($\lambda=023^\circ\text{Ls}$) at $\omega=103^\circ\text{W}$, 112°W . On 26 Jan ($\lambda=023^\circ\text{Ls}$) KUMAMORI (*Km*) took an image at $\omega=097^\circ\text{W}$. On 27 Jan ($\lambda=024^\circ\text{Ls}$) *Mk* visually watched at $\omega=070^\circ\text{W}$, 080°W , *Km* shot at $\omega=086^\circ\text{W}$, AKUTSU (*Ak*) at $\omega=094^\circ\text{W}$, and MORITA (*Mo*) at $\omega=109^\circ\text{W}$. On 31 Jan ($\lambda=025^\circ\text{Ls}$), *Ak* also took images at $\omega=083^\circ\text{W}$, 098°W , and *Mo* at $\omega=092^\circ\text{W}$ (bright), 102°W . On 1 Feb ($\lambda=026^\circ\text{Ls}$) *Mk* captured it near the CM at $\omega=051^\circ\text{W}$, 061°W , and on 4 Feb ($\lambda=027^\circ\text{Ls}$), *Mo* chased it as successively at $\omega=033^\circ\text{W}$, 036°W , 046°W , 055°W , and 065°W . On 6 Feb ($\lambda=028^\circ\text{Ls}$) GHOMIZADEH (*SGh*) at Tehran took at $\omega=064^\circ\text{W}$, 095°W , GOMEZ (*PGm*) at Sevilla at $\omega=109^\circ\text{W}$, ZURUTUZA (*NZr*) at La Fresneda at $\omega=116^\circ\text{W}$, on 7 Feb ($\lambda=029^\circ\text{Ls}$) *Mo* in Japan at $\omega=029^\circ\text{W}$, and on 8 Feb ($\lambda=029^\circ\text{Ls}$) TYLER (*DTy*) at the London suburb at $\omega=107^\circ\text{W}$: Except for *Mo*'s all show the evening one. On 9 Feb ($\lambda=030^\circ\text{Ls}$), MAKSYMOWICZ (*SMk*) observed at $\omega=081^\circ\text{W}$ (by *Wr*#38A), *DTy* at $\omega=098^\circ\text{W}$ and CASTELLÀ (*JCt*) at $\omega=105^\circ\text{W}$. On 10 Feb ($\lambda=030^\circ\text{Ls}$), SCHULZ (*RSz*) took it slightly inside at $\omega=060^\circ\text{W}$, 065°W , 074°W , while *DTy* showed it at $\omega=097^\circ\text{W}$ but the cloud looks weak. On 11 Feb ($\lambda=030^\circ\text{Ls}$) *DTy* took it at $\omega=070^\circ\text{W}$, BOSMAN (*RBs*) at $\omega=071^\circ\text{W}$, KARRER (*MKr*) at $\omega=083^\circ\text{W}$, where the cloud was not so explicit. See also the image of KIDD (*SKd*) on 12 Feb ($\lambda=031^\circ\text{Ls}$) at $\omega=088^\circ\text{W}$ as well as those of FERNÁNDEZ (*FFn*) and DELCROIX (*MDC*) on 15 Feb ($\lambda=032^\circ\text{Ls}$) at $\omega=065^\circ\text{W}$ and $\omega=081^\circ\text{W}$ respectively. b) **Mists at the Southern High Latitudes:** This is also a sequel to the preceding report, but still the mist clouds were seen along the zone of the southern continents. On 21 Jan ($\lambda=021^\circ\text{Ls}$) at $\omega=184^\circ\text{W}$, 192°W *Mo* proved an existence of mist clouds over Phæthontis as well as at the morning Eridania. On 30 Jan ($\lambda=025^\circ\text{Ls}$) SÁNCHEZ (*JSc*) showed at $\omega=212^\circ\text{W}$ that the mist cloud was seen from Electris near the CM to Eridania. On 2 Feb ($\lambda=026^\circ\text{Ls}$), a thick cloud was taken from Phæthontis to the evening side on images of DUPONT (*XDp*) at $\omega=162^\circ\text{W}$, and *MDC*'s images at $\omega=206^\circ\text{W}$ showed a cloud over Electris near the CM. The difference was caused within 3 hours (both obtained good B images). On 6 Feb ($\lambda=028^\circ\text{Ls}$), *SWk*'s images at $\omega=169^\circ\text{W}$ show a cloud to the east of Phæthontis. On 7 Feb ($\lambda=028^\circ\text{Ls}\sim 029^\circ\text{Ls}$), FLANAGAN (*WFl*) proved at $\omega=204^\circ\text{W}$, 218°W that Eridania near the CM showed a thick cloud in addi-

tion to the evening Phæthontis cloud. Later, on the day, *XDp* showed the cloud at $\omega=113^\circ\text{W}$ (one round after) in B as if it is a south polar hood. PELLIER (*CPl*)'s images at $\omega=125^\circ\text{W}$ also show it rather to the eastern side, and it looks located at Dia. There is also a cloud near Phæthontis. KOWOLLIK (*SKw*)'s B image at $\omega=159^\circ\text{W}$ shows that the Dia cloud is near the limb and looks thick. On 15 Feb ($\lambda=032^\circ\text{Ls}$) at $\omega=150^\circ\text{W}$, *DPk* produced a good image where the evening cloud at Dia was prominent. Otherwise *EAl* exquisitely showed on 9 Feb ($\lambda=029^\circ\text{Ls}$) at $\omega=236^\circ\text{W}$ in B a faint mist belt from Eridania to Ausonia. **c) Hellas:** Hellas was usually observed as having a definite boundary. On the images on 16 Jan ($\lambda=019^\circ\text{Ls}$) of *DTy* at $\omega=335^\circ\text{W}$, 347°W , and HIDALGO (*EHD*) at $\omega=343^\circ\text{W}$, the southern half of the evening Hellas looked misty. On 17 Jan ($\lambda=019^\circ\text{Ls}$) at $\omega=336^\circ\text{W}$ GRAHAM (*DGh*) visually observed the evening Hellas to be bright. This is compared with *EHD*'s image on 18 Jan ($\lambda=020^\circ\text{Ls}$) at $\omega=335^\circ\text{W}$, and we understand it was because of the evening cloud. The mist is however weak at $\omega=318^\circ\text{W}$ on the image of *EHD* on 19 Jan ($\lambda=020^\circ\text{Ls}$). *MDC*'s set on the day at $\omega=337^\circ\text{W}$ does not show the mist strong: The northern and southern difference suggests however the aspect in 1990. On 24 Jan ($\lambda=022^\circ\text{Ls}$) *FMI* chased the evening Hellas from $\omega=337^\circ\text{W}$, 346°W , 356°W , 008°W , to 019°W . On 25 Jan ($\lambda=022^\circ\text{Ls}$) *DPk* obtained a nice image at $\omega=326^\circ\text{W}$, and described the southern faint mist. HERNANDEZ (*CHr*) visually colour sketched Hellas on 27 Jan ($\lambda=023^\circ\text{Ls}$) at $\omega=323^\circ\text{W}$, 330°W (by *Wr#38A*). In Japan, *Mk* visually observed on 5 Feb ($\lambda=028^\circ\text{Ls}$) at $\omega=340^\circ\text{W}$, 350°W , and *Mn* did on 8 Feb ($\lambda=029^\circ\text{Ls}$) at $\omega=315^\circ\text{W}$, 325°W , 335°W . A glimpse was also possible at $\omega=014^\circ\text{W}$. On 10 Feb ($\lambda=030^\circ\text{Ls}$) at Fukui NAKAJIMA (*Nj*) and *Mn* chased from $\omega=340^\circ\text{W}$ (*Nj*) and $\omega=345^\circ\text{W}$ (*Mn*) to $\omega=005^\circ\text{W}$. On the day, *Mo* shot successively at $\omega=342^\circ\text{W}$, 350°W , 000°W , 010°W in R, G, B, IR. We should note that when Hellas was near the CM, the evening mist stayed at Ausonia, as shown by LAWRENCE (*PLw*)'s good set of images on 26 Jan ($\lambda=023^\circ\text{Ls}$) at $\omega=299^\circ\text{W}$. That the morning Hellas is haunted by a mist was shown by *XDp*'s images on 22 Jan ($\lambda=021^\circ\text{Ls}$) at $\omega=268^\circ\text{W}$. **d) Depressiones Helleponticæ:** The darkening of Depressiones Helleponticæ (DH) was also touched in the preceding report. This time it also appeared dark as on the images on 16 Jan ($\lambda=018^\circ\text{Ls}\sim 019^\circ\text{Ls}$) of *SWk* at $\omega=026^\circ\text{W}$, of *DAR* at $\omega=035^\circ\text{W}$ and further they show that the area was covered by a faint mist which was related with the Argyre cloud. The fallout streak between DH and the Noachis dark band looks bright as always. On the day *SGh* at $\omega=325^\circ\text{W}$ and *DTy* at $\omega=335^\circ\text{W}$, 347°W took DH, though the latter looks more natural because of mild RGB processing. See also EDWARDS (*PEd*) at $\omega=339^\circ\text{W}$, *EHD* at $\omega=343^\circ\text{W}$, and LEWIS (*MLw*) at $\omega=358^\circ\text{W}$. The images on 17 Jan ($\lambda=019^\circ\text{Ls}$) of *DAR* at $\omega=023^\circ\text{W}$ and of CASQUINHA (*PCq*) at $\omega=025^\circ\text{W}$, 031°W show the dark DH covered by a mist. We also have images as follows: On 18 Jan ($\lambda=020^\circ\text{Ls}$), *EHD*'s at $\omega=335^\circ\text{W}$, SOLDEVILLA (*JSd*)'s at $\omega=340^\circ\text{W}\sim 007^\circ\text{W}$ (B&W), on 19 Jan ($\lambda=020^\circ\text{Ls}$) *MDC*'s at $\omega=335^\circ\text{W}$ (the IR image at $\omega=341^\circ\text{W}$ shows a detail of DH), on 21 Jan ($\lambda=021^\circ\text{Ls}$) *SWk*'s at $\omega=353^\circ\text{W}$ etc. *DPk*'s images on 24 Jan ($\lambda=022^\circ\text{Ls}$) at $\omega=007^\circ\text{W}$ show quite an inside structure of DH. The images then became few. *Ak*'s images on 5 Feb ($\lambda=028^\circ\text{Ls}$) at $\omega=034^\circ\text{W}$ suggest DH and explicitly the bright streak. On 5 Feb *Mk* and on 8 Feb *Mn* observed visually but DH looked weak. On 11 Feb ($\lambda=030^\circ\text{Ls}$), *Ak* took again at $\omega=328^\circ\text{W}$, but not strong, though the mist is related with the Argyre cloud. However the image by *SKd* on 15 Feb ($\lambda=033^\circ\text{Ls}$) at $\omega=044^\circ\text{W}$ proves that the southern area belonging to the west of DH was particularly dark. **e) M Chronium:** On 19 Jan ($\lambda=020^\circ\text{Ls}$), at Fukui, *Nj* and *Mn* recorded that M Chronium was quite dark (dark blue in contrast with the rather brownish M Cimmerium) at $\omega=205^\circ\text{W}$ (*Mn*), 210°W (*Nj*), 215°W (*Mn*), 220°W (*Nj*), 225°W (*Mn*). The images on 22 Jan ($\lambda=021^\circ\text{Ls}$) of *FFn* at $\omega=263^\circ\text{W}$, and of *XDp* at $\omega=268^\circ\text{W}$ show its western end (Tiphys Fr) to be dark. On 24 Jan ($\lambda=022^\circ\text{Ls}$) at $\omega=245^\circ\text{W}\sim 263^\circ\text{W}$, *RSz* showed the area dark in IR and misy in B. *MDC* took on 2 Feb ($\lambda=027^\circ\text{Ls}$) at $\omega=206^\circ\text{W}$, and it also showed a darker M Chronium beneath a thin mist. The images of *SWk* on 4 Feb ($\lambda=027^\circ\text{Ls}$) at $\omega=260^\circ\text{W}$ proved a

peculiar coloured M Chromium under the mist. See also the images on 9 Feb ($\lambda=029^\circ\text{Ls}$) of *PGc* at $\omega=204^\circ\text{W}$, and of *EAl* at $\omega=236^\circ\text{W}$ where M Chromium lies dark. **d) Tharsis Montes:** Though the meteorological condition of Tharsis Montes does not differ so much from that at the opposition time, it has been hard to detect them because of the augment of the phase angle ι while the angular diameter δ is decreasing. On 23 Jan ($\lambda=022^\circ\text{Ls}$, $\iota=22^\circ$), *Ak* show them faintly at $\omega=148^\circ\text{W}$. On 6 Feb ($\lambda=028^\circ\text{Ls}$, $\iota=29^\circ$), *SWk* at $\omega=169^\circ\text{W}$ isolated the Arsia cloud from the preceding clouds as well as the Olympus cloud. In appearance the preceding cloud patch is located at $\Omega=100^\circ\text{W}\sim 110^\circ\text{W}$, $\Phi=20^\circ\text{N}$, and so it implies the thick patch is at around Ascræus Mons. This was also seen on *JCt*'s on the preceding day at $\omega=163^\circ\text{W}$. Roughly checking, in the case of *Ak* on 23 Jan, since $148-121-22^\circ=5^\circ$ (Arsia Mons is at $\Omega=121^\circ\text{W}$), the Arsia cloud was the one just after the noon by 20 minutes. In the case of *SWk*, since $169-121-29^\circ=19^\circ$, it was further later by one hour. To compare, if we pick out the case of *DPk* on 9 Jan ($\lambda=015^\circ\text{Ls}$, $\iota=13^\circ$) at $\omega=164^\circ\text{W}$, where the trio clouds were very apparent, the Arsia cloud was at 2 o'clock PM since $164-121-13^\circ=30^\circ$. This time *DPk* produced a set of images on 15 Feb ($\lambda=032^\circ\text{Ls}$, $\iota=32^\circ$) at $\omega=150^\circ\text{W}$, where the Arsia cloud looks fainter than the Ascræus cloud. However at this time Arsia Mons belong to the noon or before since $150-121-32^\circ<0^\circ$, while Ascræus Mons proceeded to 1 o'clock PM since $150-104-32^\circ=14^\circ$ (Ascræus Mons is located at $\Omega=104^\circ\text{W}$). **e) Elysium Mons:** On the contrary the Elysium-Mons cloud showed up very peculiarly. The images made on 22 Jan ($\lambda=021^\circ\text{Ls}$) by *FFn* at $\omega=263^\circ\text{W}$, by GÓMEZ (*PGm*) at $\omega=264^\circ\text{W}$, and by *XDp* at $\omega=268^\circ\text{W}$ showed already a shining evening cloud at Elysium Mons. Further on 24 Jan ($\lambda=022^\circ\text{Ls}$) at $\omega=273^\circ\text{W}$, *PCq* detected a sharp bright spot near the evening limb, and on 26 Jan ($\lambda=023^\circ\text{Ls}$, $\iota=24^\circ$) at $\omega=250^\circ\text{W}$ he showed a more acute white spot of Elysium Mons more inside. Since $250-213-24^\circ=13^\circ$, it was roughly just before 1 o'clock PM. However if it shows up also on *JSd*'s image at $\omega=209^\circ\text{W}$, it is possible its shining was partially due to the diffused reflection. From the view-point of season, the Elysium cloud behaves like the Olympus cloud, while the flanks of Elysium Mons are steeper than those of other Montes at Tharsis and so this kind of brightening may follow. Other images on 26 Feb don't give so sharp shining, but every shows a brightening: See *AMADORI* (*VAm*)'s at $\omega=237^\circ\text{W}$, *XDp*'s at $\omega=251^\circ\text{W}$, and *MDC*'s at $\omega=254^\circ\text{W}$. On 4 Feb ($\lambda=027^\circ\text{Ls}$) *SWk* at the Florida Keys described the Elysium-Mons cloud again bright and slightly large at $\omega=260^\circ\text{W}$. One round after, he also captured a set of images at $\omega=203^\circ\text{W}$ to show a slightly bright Elysium before the noon, and so the diffused reflection. On 9 Feb ($\lambda=029^\circ\text{Ls}$, $\iota=30^\circ$), *EAl*'s images showed it nice at $\omega=236^\circ\text{W}$. Since $236-213-30^\circ<0^\circ$, it must be at noon or before noon, and so mainly be due to the irregular reflection. His B image was however superb in showing a cloud trail in the afternoon eastward from Elysium Mons. The steeper Elysium Mons may cause several different aspects from those of Tharsis Montes. **f) Long Morning Mist on the NH:** Mist trail can be seen on the northern hemisphere. On the image of *DPk* on 25 Jan ($\lambda=022^\circ\text{Ls}$) at $\omega=326^\circ\text{W}$ a morning long eastward mist was caught from the area of M Acidalium. *JCt*'s images also show a similar kind of long mist from the morning Elysium on 5 Feb ($\lambda=028^\circ\text{Ls}$) at $\omega=163^\circ\text{W}$. It runs to the south of Propontis I along the 40°N zone. See also *SHARP* (*ISp*)'s images on 6 Feb ($\lambda=028^\circ\text{Ls}$) at $\omega=124^\circ\text{W}$. **g) Arctic Dust Disturbances:** To the east of the tip of the dark Utopia, there is a faint part at around $\Omega=250^\circ\text{W}$. The very place turned out to be much fainter on 22 Jan ($\lambda=021^\circ\text{Ls}$): So there must have been a dust disturbance related with the arctic area. See *FFn*'s image at $\omega=263^\circ\text{W}$, *XDp*'s at $\omega=268^\circ\text{W}$, *ADELAAR* (*JAd*)'s at $\omega=282^\circ\text{W}$, and *RBs*'s at $\omega=287^\circ\text{W}$. The dispersion process can be traced. As far as we see *DPk*'s images on 31 Jan ($\lambda=025^\circ\text{Ls}$) at $\omega=268^\circ\text{W}$, the area has been recovered by then. Earlier, *DTy*'s images on 16 Jan ($\lambda=019^\circ\text{Ls}$) at $\omega=335^\circ\text{W}$, 347°W may suggest another disturbance at the area between Callirrhoe and the npc. See also *SGh*'s at $\omega=325^\circ\text{W}$, *EHD*'s at $\omega=343^\circ\text{W}$, *HANCOCK* (*IHn*)'s at $\omega=352^\circ\text{W}$, *MLw*'s at $\omega=358^\circ\text{W}$. This looks to remain for a while. See also a

notch on *DPk*'s images on 24 Jan ($\lambda=022^\circ\text{Ls}$) at $\omega=007^\circ\text{W}$. **h) Markings in General:** The markings are generally fainter than usual because of fallout and some airborne dusts, but the region of *Margaritifer S* looks to have slightly recovered in a relative sense. At the southern area of *Ætheria*, the new "double canal" remains the same as before as seen on *PCq*'s images on 26 Jan ($\lambda=023^\circ\text{Ls}$) at $\omega=250^\circ\text{W}$ but it is associated with a shadowy area to the west, and the faint shadowy triangular part reminds us of the dark 1975 shape. See also *DPk*'s images on 31 Jan ($\lambda=025^\circ\text{Ls}$) at $\omega=268^\circ\text{W}$. **i) NPR:** It has been difficult to watch minutely the npc because of the tilt ϕ . The remnant of the nph around *M Acidalium* was slightly seen on *Ak*'s images on 5 Feb ($\lambda=028^\circ\text{Ls}$) at $\omega=034^\circ\text{W}\sim 045^\circ\text{W}$, while at the end of the period it was scarcely seen: See *DTy*'s images on 12 Feb ($\lambda=031^\circ\text{Ls}$) at $\omega=046^\circ\text{W}$, or *SKd*'s image on 15 Feb ($\lambda=033^\circ\text{Ls}$) at $\omega=044^\circ\text{W}$.

♂⋯⋯⋯**a)アルギュレ雲**：前節 $\lambda=016^\circ\text{Ls}$ 邊りでは、アルギュレ雲は中央でも濃く出たり消えたりしていたが、今回は總じて濃く出ている様である。但し後半はやや弱まったかも知れない。澤山の観測があるが、16Jan($\lambda=018^\circ\text{Ls}$)にはウォーカー(SWk)氏の $\omega=026^\circ\text{W}$ 、アルディッチ(DAr)氏の $\omega=035^\circ\text{W}$ では中央寄りに擴がりを見て見え、メルカ(JMI)氏の $\omega=078^\circ\text{W}$ では夕方に見えている。17Jan($\lambda=019^\circ\text{Ls}$)にはメリッロ(FMI)氏の $\omega=083^\circ\text{W}$ 、 095°W がある。19Jan($\lambda=020^\circ\text{Ls}$)には唐那・派克(DPk)氏の $\omega=029^\circ\text{W}$ が朝方寄りに詳しい像を示している。ゴルチンスキ(PGc)氏の $\omega=038^\circ\text{W}$ も参照。夕方にはアッレン(EAl)氏の $\omega=071^\circ\text{W}$ 、ロメリ(ELm)氏の $\omega=071^\circ\text{W}\sim 087^\circ\text{W}$ がある。20Jan($\lambda=020^\circ\text{Ls}$)にはJMI氏の $\omega=040^\circ\text{W}$ があるが、雲は淡い。22Jan($\lambda=021^\circ\text{Ls}$)にはFMI氏が $\omega=040^\circ\text{W}$ 、 050°W 、PGc氏が $\omega=049^\circ\text{W}$ で撮っている。24Jan($\lambda=022^\circ\text{Ls}$)にはFMI氏が $\omega=346^\circ\text{W}$ 、 356°W 、 008°W 、 019°W 、 031°W とターミネータからの出現前から追跡した。明るさは変わらない。同じ日に $\omega=007^\circ\text{W}$ でDPk氏の良像がある。日本へ移って、25Jan($\lambda=023^\circ\text{Ls}$)に筆者達の一人(Mk)が眼視で $\omega=103^\circ\text{W}$ 、 112°W で夕方のアルギュレ雲を見ている。26Jan($\lambda=023^\circ\text{Ls}$)には熊森(Km)氏が $\omega=097^\circ\text{W}$ で夕方に捉えた。27Jan($\lambda=024^\circ\text{Ls}$)にはMkが $\omega=070^\circ\text{W}$ 、 080°W で眼視観測し、Km氏が $\omega=086^\circ\text{W}$ 、阿久津(Ak)氏が $\omega=094^\circ\text{W}$ 、森田(Mo)氏が $\omega=109^\circ\text{W}$ で撮っている。31Jan($\lambda=025^\circ\text{Ls}$)にもAk氏が $\omega=083^\circ\text{W}$ 、 098°W 、Mo氏が $\omega=092^\circ\text{W}$ (明るい)、 102°W で撮像した。1Feb($\lambda=026^\circ\text{Ls}$)にはMkが $\omega=051^\circ\text{W}$ 、 061°W で中央寄りに眼視で捉え、4Feb($\lambda=027^\circ\text{Ls}$)にはMo氏が $\omega=033^\circ\text{W}$ 、 036°W 、 046°W 、 055°W 、 065°W と追った。6Feb($\lambda=028^\circ\text{Ls}$)にはテヘランのゴミサデ(SGh)氏が $\omega=064^\circ\text{W}$ 、 095°W 、セビーヤ(セビリヤ)のゴメス(PGm)氏が $\omega=109^\circ\text{W}$ 、ラ・フレスネダのスルトウサ(NZr)氏が $\omega=116^\circ\text{W}$ で捉え、7Feb($\lambda=029^\circ\text{Ls}$)には日本でMo氏が $\omega=029^\circ\text{W}$ 、8Feb($\lambda=029^\circ\text{Ls}$)にはロンドン郊外のタイラー(DTy)氏が $\omega=107^\circ\text{W}$ で撮ったが、Mo氏以外何れも夕方である。9Feb($\lambda=030^\circ\text{Ls}$)のマクシモヴィッツ(SMk)氏の $\omega=081^\circ\text{W}$ (Wr#38A)、DTy氏の $\omega=098^\circ\text{W}$ 、カスティエーヤ(JCt)氏の $\omega=105^\circ\text{W}$ 。10Feb($\lambda=030^\circ\text{Ls}$)には少し内部でシュルツ(RSz)氏の $\omega=060^\circ\text{W}$ 、 065°W 、 074°W 、夕方ではDTy氏の $\omega=097^\circ\text{W}$ にも出ているが、DTy氏では弱い。11Feb($\lambda=030^\circ\text{Ls}$)にはDTy氏の $\omega=070^\circ\text{W}$ 、ボズマン(RBs)氏の $\omega=071^\circ\text{W}$ 、カッラー(MKl)氏の $\omega=083^\circ\text{W}$ の像があるが、弱くなっている感じである。但し、12Feb($\lambda=031^\circ\text{Ls}$) $\omega=088^\circ\text{W}$ のキッド(SKd)氏の像や、15Feb($\lambda=032^\circ\text{Ls}$)のフェルナンデス(FFn)氏の $\omega=065^\circ\text{W}$ 、デルクロア(MDc)氏の $\omega=081^\circ\text{W}$ も参照。**b)南半球高緯度の雲**：これも前節からの續きだが、南半球大陸上に雲の帯が依然散見される。21Jan($\lambda=021^\circ\text{Ls}$)のMo氏の $\omega=184^\circ\text{W}$ 、 192°W には夕方のパエトンティス上、朝方のエリダニア上に雲が見られる。30Jan($\lambda=025^\circ\text{Ls}$)のサンチェス(JSc)氏の $\omega=212^\circ\text{W}$ では中央寄りのエレクトリスからエリダニアに掛けて雲が見られる。2Feb($\lambda=026^\circ\text{Ls}$)にはデュボン(XDp)氏の $\omega=162^\circ\text{W}$ にはパエトンティスから夕方に掛けて濃い雲が見られ、MDc氏の $\omega=206^\circ\text{W}$ では、中央寄りのエレクトリスに雲が湧いている。三時間程度の差とは思えない程である(何れもB光が好い)。6Feb($\lambda=028^\circ\text{Ls}$)にはSWk氏の $\omega=169^\circ\text{W}$ にパエトンティス東寄りに出ている。7Feb($\lambda=028^\circ\text{Ls}\sim 029^\circ\text{Ls}$)にはフラナガン(WFl)氏の $\omega=204^\circ\text{W}$ 、 218°W には夕方のパエトンティス上のものの他に中央寄りのエリダニア上に白雲が濃く出ている。同日後半のXDp氏の(一巡りした) $\omega=113^\circ\text{W}$ のBではまるで南極雲のように見えている。ペリエ(CPI)氏の $\omega=125^\circ\text{W}$ でも同様、もしくはやや東寄りであり、ディア邊りかと思われる。パエトンティス邊りにも霧が出

ている。コヴォツリク (SKw)さんの $\omega=159^\circ\text{W}$ ではディア邊りが夕端に来て濃い(B)。15Feb($\lambda=032^\circ\text{Ls}$) $\omega=150^\circ\text{W}$ のDPk氏の画像で夕端に出ている雲はディア邊りであろうと思う。尚、EAl氏の9Feb($\lambda=029^\circ\text{Ls}$) $\omega=236^\circ\text{W}$ のBは秀逸で、エリダニアからアウソニアに掛けての淡い雲状帯がよく表現されている。

c)ヘッラス：ヘッラスは明白に輪郭を伴って観測されているが、16Jan($\lambda=019^\circ\text{Ls}$)のDTy氏の $\omega=335^\circ\text{W}$ 、 347°W 、イダルゴ(EHd)氏の $\omega=343^\circ\text{W}$ では夕方南半分が靄っていることが分かる。17Jan($\lambda=019^\circ\text{Ls}$) $\omega=336^\circ\text{W}$ にはグレラム(DGh)氏が眼視で夕方のヘッラスが明るいことを観測している。これは18Jan($\lambda=020^\circ\text{Ls}$)のEHd氏の $\omega=335^\circ\text{W}$ と比較出来、後者では雲であることが判る。19Jan($\lambda=020^\circ\text{Ls}$) $\omega=318^\circ\text{W}$ のEHd氏の像では未だ弱い。MDc氏の $\omega=337^\circ\text{W}$ でも強くないが、北部の明るい邊り、形は1990年型に近いと思われる。24Jan($\lambda=022^\circ\text{Ls}$)にはFMI氏が $\omega=337^\circ\text{W}$ 、 346°W 、 356°W 、 008°W 、 019°W とヘッラスト雲を追っている。25Jan($\lambda=022^\circ\text{Ls}$)にはDPk氏が $\omega=326^\circ\text{W}$ で良像を得、南部の淡雲を撮り、27Jan($\lambda=023^\circ\text{Ls}$)にはヘルナンデス(ChR)氏が $\omega=323^\circ\text{W}$ 、 330°W (Wr#38A)でスケッチしている。日本では5Feb($\lambda=028^\circ\text{Ls}$)にはMkが眼視で $\omega=340^\circ\text{W}$ 、 350°W 、8Feb($\lambda=029^\circ\text{Ls}$)にはMnが $\omega=315^\circ\text{W}$ 、 325°W 、 335°W と追った。 $\omega=014^\circ\text{W}$ でも稍見える。10Feb($\lambda=030^\circ\text{Ls}$)には中島(Nj)氏の $\omega=340^\circ\text{W}$ 、Mnの $\omega=345^\circ\text{W}$ 以降交互に $\omega=005^\circ\text{W}$ 邊りまで追った。この日、Mo氏も $\omega=342^\circ\text{W}$ 、 350°W 、 000°W 、 010°W と夕方のヘッラスをR、G、B、IRで追跡した。尚、ヘッラスの南中時には夕雲はアウソニアに濃いことは26Jan($\lambda=023^\circ\text{Ls}$) $\omega=299^\circ\text{W}$ のローレンス(PLw)氏の像などに現れている。また、朝方のヘッラスにも雲が漂うことは22Jan($\lambda=021^\circ\text{Ls}$)のXDp氏の $\omega=268^\circ\text{W}$ 等に顕れている。

d)デプレッシオネス・ヘッレスポンティカエの濃化：デプレッシオネス・ヘッレスポンティカエ(DH)が濃化して見えることは前節に述べているが、今回も既に16Jan($\lambda=018^\circ\text{Ls}$ ~ 019°Ls)のSWk氏の $\omega=026^\circ\text{W}$ 、DAR氏の $\omega=035^\circ\text{W}$ に濃く、またアルギュレ雲と聯なる霧に侵されている様に見える。濃化したDHとノアキス暗帯との間は筋状に明るく見える。これは固定されたものであろう。同日、一廻りしてSGh氏の $\omega=325^\circ\text{W}$ やDTy氏の $\omega=335^\circ\text{W}$ 、 347°W にも出ている。特に後者はRGBが自然である。他にエドワーズ(Ped)氏の $\omega=339^\circ\text{W}$ 、EHd氏の $\omega=343^\circ\text{W}$ 、ルイス(MLw)氏の $\omega=358^\circ\text{W}$ 参照。17Jan($\lambda=019^\circ\text{Ls}$)のDAR氏の $\omega=023^\circ\text{W}$ にもカスキニヤ(PCq)氏の $\omega=025^\circ\text{W}$ 、 031°W にも霧を被って濃く写っている。以下、次の様な像がある：18Jan($\lambda=020^\circ\text{Ls}$)にはEHd氏の $\omega=335^\circ\text{W}$ 、ソルデビーヤ(JSd)氏の $\omega=340^\circ\text{W}$ ~ 007°W (黑白)、19Jan($\lambda=020^\circ\text{Ls}$)にはMDc氏の $\omega=335^\circ\text{W}$ ($\omega=341^\circ\text{W}$ のIR像ではDHの微細)、21Jan($\lambda=021^\circ\text{Ls}$)のSWk氏 $\omega=353^\circ\text{W}$ など、また24Jan($\lambda=022^\circ\text{Ls}$)のDPk氏の $\omega=007^\circ\text{W}$ では微細な内部構造が出ている。以後、画像は餘り無いが、5Feb($\lambda=028^\circ\text{Ls}$)のAk氏の $\omega=034^\circ\text{W}$ 等には、DHが窺えるし、明筋は見える。但し、眼視では5FebにMkが、8FebにMnが見ているが、DHは弱い。11Feb($\lambda=030^\circ\text{Ls}$)のAk氏の $\omega=328^\circ\text{W}$ 邊りでも強くない。アルギュレ雲に聯なる霧は出ている。但し、15Feb($\lambda=033^\circ\text{Ls}$) $\omega=044^\circ\text{W}$ のSKd氏の像ではDHに連なる西部が實に黒く濃く出ている。

e)マレ・クロニウム：19Jan($\lambda=020^\circ\text{Ls}$)に福井で $\omega=205^\circ\text{W}$ (Mn)、 210°W (Nj)、 215°W (Mn)、 220°W (Nj)、 225°W (Mn)と高緯度のマレ・クロニウムが(マレ・キムメリウムの褐色系に對して青黒に)濃く見えていることを記録した。22Jan($\lambda=021^\circ\text{Ls}$)のFFn氏の $\omega=263^\circ\text{W}$ 、XDp氏の $\omega=268^\circ\text{W}$ にはその西端(ティフス・フレトゥム)が濃く見える。24Jan($\lambda=022^\circ\text{Ls}$)には $\omega=245^\circ\text{W}$ ~ 263°W でRSz氏がIRで濃く、Bではその上の霧を描寫した。2Feb($\lambda=027^\circ\text{Ls}$)のMDc氏の $\omega=206^\circ\text{W}$ (福井とほぼ同じ角度)には依然霧の下に濃く存在している。4Feb($\lambda=027^\circ\text{Ls}$)のSWk氏の $\omega=260^\circ\text{W}$ 像でもマレ・クロニウムは異様な色で霧の下に写っている。9Feb($\lambda=029^\circ\text{Ls}$)のPGc氏の $\omega=204^\circ\text{W}$ 、EAl氏の $\omega=236^\circ\text{W}$ にも濃く横たわっている。

d)タルシス山：タルシス三山の夕雲は最接近時と然程変わらない筈(最盛期は未だ先)だが、 i が大きく變わって来ているのと、 δ が落ちてきて見辛くなっている。23Jan($\lambda=022^\circ\text{Ls}$ 、 $i=22^\circ$)のAk氏の $\omega=148^\circ\text{W}$ にはタルシス三山が仄かに見えている。6Feb($\lambda=028^\circ\text{Ls}$ 、 $i=29^\circ$)のSWk氏の $\omega=169^\circ\text{W}$ にはアルシア雲が分離し、オリュムプス・モンズも稍出掛かっている。見掛け上先行して $\Omega=100^\circ\text{W}$ ~ 110°W 、 $\Phi=20^\circ\text{N}$ 邊りの雲が大きいからこれはアスクラエウス・モンズの雲であろう。これは前日のJct氏の $\omega=163^\circ\text{W}$ にも出て居るであろう。Ak氏の場合、簡易法で見ると、 $148-121-22=5^\circ$ であるから(アルシアは $\Omega=121^\circ\text{W}$)、アルシア

は未だ午後を廿分ほど廻ったに過ぎない。一方、SWk氏の場合は $169-121-29^\circ=19^\circ$ であるから、更に一時間遅い譯である。DPk氏の9Jan($\lambda=015^\circ\text{Ls}$, $\iota=13^\circ$)の $\omega=164^\circ\text{W}$ では三山は明確であったが、 $164-121-13^\circ=30^\circ$ でアルシアは午後2時である。DPk氏の今回の15Feb($\lambda=032^\circ\text{Ls}$, $\iota=32^\circ$) $\omega=150^\circ\text{W}$ ではアルシアはアスクラエウス・モンズに比して弱いとされているが、 $150-121-32^\circ<0^\circ$ でアルシアは寧ろ午前に属している(WF1氏の14Feb $\omega=150^\circ\text{W}$ でも同じ)。一方アスクラエウス・モンズ($\Omega=104^\circ\text{W}$)は $150-104-32^\circ=14^\circ$ で午後1時になっている。従って時刻の違いであって、終始弱いわけでは無かろう。**e) エリュシウム・モンズ**：これに對し、エリュシウム・モンズ(EM)は特異な見え方をした。22Jan($\lambda=021^\circ\text{Ls}$)のFFn氏の $\omega=263^\circ\text{W}$ 、ゴメス(PGm)氏の $\omega=264^\circ\text{W}$ 、XDp氏の $\omega=268^\circ\text{W}$ の夕端には既に輝くエリュシウム・モンズの夕雲が出ているが、24Jan($\lambda=022^\circ\text{Ls}$) $\omega=273^\circ\text{W}$ のPCq氏の像で夕端に鋭い点状の明斑を示し、翌々26Jan($\lambda=023^\circ\text{Ls}$, $\iota=24^\circ$) $\omega=250^\circ\text{W}$ ではもっと内側で明瞭に輝点ともいふべき姿で捉えられた。 $250-213-24^\circ=13^\circ$ で午後1時前である。然し、もしJSd氏の日日 $\omega=209^\circ\text{W}$ の影像などにも出ているのであれば、山腹などの反射を含んでいる可能性もある。EM雲は季節的にオリュムプス・モンズ雲と同じ様な動きをすることが知られているが、EMは山の形状が比較的に可成り峻険であるから、このような珍しい様子になるかと思われる。もし反射が混じるならば、EMの頂上も水平ではない。この日の他の像はこれ程峻別しないが、どれにも明るさは出ているようである。アマドリ(VAm)氏の $\omega=237^\circ\text{W}$ 、XDp氏の $\omega=251^\circ\text{W}$ 、MDc氏の $\omega=254^\circ\text{W}$ など。4Feb($\lambda=027^\circ\text{Ls}$) $\omega=260^\circ\text{W}$ ではフロリダ・キーズのSWk氏の $\omega=260^\circ\text{W}$ に大きく描寫された(一廻りした同日同氏の $\omega=203^\circ\text{W}$ では明らかに午前中なのに稍明るくなっている)。9Feb ($\lambda=029^\circ\text{Ls}$, $\iota=30^\circ$)になってまたEAl氏の $\omega=236^\circ\text{W}$ に綺麗に顕れた。 $236-213-30^\circ<0^\circ$ で午前だから、雲というより、反射が大いに混じるのかも知れないが、優れたB光で午後の東側に雲の尾が引いている様に見える。カルデラも含めて峻立するエリュシウム・モンズはオリュムプス・モンズなどとはまた違うようである。**f) 奥深く北半球の朝霧**：棚引く朝霧が北半球でも見られる。DPk氏の25Jan($\lambda=022^\circ\text{Ls}$) $\omega=326^\circ\text{W}$ には朝方のマレ・アキダリウムの方から西へ棚引く霧が寫っている。またJcT氏の5Feb($\lambda=028^\circ\text{Ls}$) $\omega=163^\circ\text{W}$ には朝方のエリュシウム領域から西へ朝霧が棚引いている。プロポンティスIの南、 40°N 位。シャープ(ISp)氏の6Feb($\lambda=028^\circ\text{Ls}$) $\omega=124^\circ\text{W}$ も参照。**g) 北極地擾亂**：ウトピアの暗部の尖りから東の方に少し淡化したところがあるのであるが、前後は兎も角22Jan($\lambda=021^\circ\text{Ls}$)には窪みが強くなり北極地と繋がった黄塵による擾亂があったと思われる。FFn氏 $\omega=263^\circ\text{W}$ 、XDp氏 $\omega=268^\circ\text{W}$ 、アデラール(JAd)氏 $\omega=282^\circ\text{W}$ 、RBs氏 $\omega=287^\circ\text{W}$ に見られる。その後擴散が迎れるが、ここでは擧げない。31Jan($\lambda=025^\circ\text{Ls}$) $\omega=268^\circ\text{W}$ のDPk氏像では舊態に復していると思う。一方、DTy氏の16Jan($\lambda=019^\circ\text{Ls}$) $\omega=335^\circ\text{W}$ 、 347°W にもカッリルホエと北極冠の間に擾亂があるように思える。DTy氏の描寫はマイルドで適當であるが、SGh氏の $\omega=325^\circ\text{W}$ の奇態な様子はこれに據るかも知れない。EHd氏の $\omega=343^\circ\text{W}$ 、ハンコック(IHn)氏の $\omega=352^\circ\text{W}$ 、MLw氏の $\omega=358^\circ\text{W}$ にも見られる。暫くこの傾向が残ったようである。24Jan($\lambda=022^\circ\text{Ls}$) $\omega=007^\circ\text{W}$ のDPk氏の像の切れ込みも参照。**h) 模様全般**：全體に模様は相變わらず濃度が落ちていて見難いが、マルガリティフェル・シヌスのあたりは相對的に回復しているのではないかと思われる。大きな模様の變化はない。アエテリア暗斑の南はPCq氏の26Jan($\lambda=023^\circ\text{Ls}$) $\omega=250^\circ\text{W}$ に見られるように新運河等同じだが、稍や西に薄暗い部分がはみ出して1975年の三角形型を思い出させる形になっている。DPk氏の31Jan($\lambda=025^\circ\text{Ls}$) $\omega=268^\circ\text{W}$ 参照。**i) 北極地**：北極冠は ϕ の所爲で見辛い位置にある。マレ・アキダリウムの邊りの北極雲の残り滓はAk氏の5Feb($\lambda=028^\circ\text{Ls}$) $\omega=034^\circ\text{W}$ - 045°W では未だ少々見えているが、期末12Feb($\lambda=031^\circ\text{Ls}$) $\omega=046^\circ\text{W}$ のDTy氏の像、15Feb($\lambda=033^\circ\text{Ls}$) $\omega=044^\circ\text{W}$ のSKd氏像では見られなくなっている。

♂……追加報告： We Further Received the following observations which were produced before 16 Jan.

HIDALGO-TORTOSA, Emilio エミリオ・イダルゴ(EHd) 西班牙La Carolina, Jaén, España

1 Colour Image (14 January 2008)

30cm Dall-Kirkham, ToUcam Pro / ICX 424

MATSUMOTO, Tatsujiro 松本 達二郎 (Tmt) 尼崎 Amagasaki, Hyogo, Japan

1 Orange Image (4 January 2008) 28cm SCT with a ToUcam

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

5 Sets of RGB + 5 IR Images (6, 9 January 2008) 25cm spec with a Lu075M

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

11 Sets of RGB + 2 B Images (2, 3, 4 December 2007)

f/40@36cm SCT with a SKYnyx 2-0M at Barbados

Tatsujiro MATSUMOTO (Tmt) is originally a visual observer (cf. CMO #320), but this apparition he felt it difficult to watch Mars continuously mostly because of the bad seeing and coldness. This image on 4 Jan is one of his best shots (會心の一作) made by a ToUcam hitherto where he described the duo nails of Aryn as well as Grace's Fons inside the Huygens crater (LtE参照-p0878). Damian PEACH (DPc)'s images are those made at the Barbados expedition in December. (DTy's, ISp's and BK'n's images made at Barbados at the same period were already reviewed. See CMO #340, #341 and #342.) The images on 2 Dec ($\lambda=356^\circ\text{Ls}$, $\delta=15.2''$) range from $\omega=120^\circ\text{W}$ to $\omega=183^\circ\text{W}$ (time ranges from 3:58 to 8:15 GMT) where the areas from the new marking at Daedalia to the Newton crater are shown in detail. The white-cloud burst near Alba Patera, which was recorded before eg on 29 Nov ($\lambda=355^\circ\text{Ls}$) by PCq (cf CMO #339), is shown here. In B, the evening clouds over Tharsis Montes and Olympus Mons are seen (cf CMO #339 and #340). The images on 3 Dec ($\lambda=357^\circ\text{Ls}$) ranges from $\omega=096^\circ\text{W}$, 101°W , 106°W , 113°W , finally to 149°W . On the former images, the area of Solis L is described in great detail as well as the Nilokeras complex. The B image at $\omega=149^\circ\text{W}$ shows the evening clouds at Tharsis. The npc is clearly seen, while the remnant of the nph surges up to the lower line of Alba.

♂.....In the next issue we shall review the observations made during one month period from 16 February ($\lambda=033^\circ\text{Ls}$, $\delta=10.4''$) to 15 March 2008 ($\lambda=046^\circ\text{Ls}$, $\delta=7.9''$).

南 政 次・村上 昌己 M MINAMI & M MURAKAMI

便 り L e t t e r s t o t h e E d i t o r

●.....Date: Wed, 23 Jan 2008 21:05:33 +0100
Subject: Re: npc growing

Dear Masatsugu, About the role of dust in the formation of cap, I have not much to say - your reasonment is logical but we would need to observe the critical season another time shortly after a bit dust event... Another element is that, even is the atmosphere is warmed during a global dust storm, maybe it's still not warmed enough over the winter polar region to slow the cap growth. But this is gambling.

About Olympus Mons, I admit I have forgotten about the idea of an opposition effect. However, would an "opposition brightening" be an effect strong enough to shine even in UV ??? This looks a bit difficult to me ! The frost hypotesis is for me still the simplest, how unexpected it can sound... Best wishes

○.....Date: Wed, 23 Jan 2008 21:10:01 +0100
Subject: Re: FW:Re: Mars 080114 15

Dear Masatsugu, I would agree with Sean, this remarkable yellow streak looks present already on the days before and also on the days after, so there is no movement.

So ground dust deposit.

○.....Date: Tue, 29 Jan 2008 22:17:52 +0100
Subject: Re: npc growing

Dear Masatsugu,

>Do you believe that on the 5 Nov 342Ls Peach's set of images
>Kunowsky is inside the npc?

yes it is to me.

>In that case, what do you think some darker areas in R to the
>north of Kunowsky imply?

Shadowy ice because of very low sunlit.

>Don't you think Kunowsky is visible on the HST image taken on
>28 Oct 2005 (314Ls)?

Yes, definitely, I did notice it already when realizing my first message about the NPC.

>If so, is Kunowsky inside the npc or outside?

It looks just at the border on the color image, the southern side being just outside the cap !

>Kunowsky in the MGS npr images looks vacant inside, but why
>here it looks to be filled by the frost?

I still do see a ring personally, but the resolution is fair...

>HST 8 Nov 2005 (320Ls) image looks to show at least three
>strata of white matters at the npr. Which do you think the true npc?

Only the brightest strata, the one closer to north. I did download the fits originals from these two HST runs, and on R and IR frames, only this strata is visible.

>The reason why I adhere to the shadowy areas at the npr is because
>Professor Miyamoto observed several times when the nph is dispersed
>and its lull brought some shadowy areas inside the nph, and he
>concluded the polar cap has been very slow to grow up. I am afraid if

>he can see Peach's images or the HST image on 28 Oct 2005, he may be
>going to assert the shadowy area does not convey the frost and so no
>npc is visible.

Yes but this doesn't make case of sunlit conditions. The ice cannot be bright before equinox; the reason why we see the ring of the crater brighter must be because the rings are slightly "higher" and then catch more light (and, the borders are not flats). On MGS images, the rings of craters is progressively fading in the cap's brightness after Ls 0 as the Sun is getting higher in the sky.

Anyway I see your point - the 2005 HST image seems to tell us that the cap is still growing at this season. Note however that it's already large even if the crater is at its very edge... or maybe, the cap has sublimated a bit because of dust. But MGS scientists did find a decreased temperature at the NPR during dust conditions, because of enhanced Hadley circulation. I'm at the limit of my present knowledge...

>I have been saying the "opposition effect" of Olympus Mons for twenty
>years or more, and it is strange you have not been aware of it.
>Olympus Mons was apparent on R or integrated light image, while Arsia
>Mons was apparent on B390 image. If OM is recently seen through B
>image, it is quite natural because it is a reflected white light. I
>think it is important the brightening is visible from morning to
>evening if no cloud is raised (as in 2003, and 2005). I even think it
>flank is also sharply brightening in the morning and evening. I think
>Montes are made from different soil made by the craters, and the lava
>bed of Montes is made from the reflective matters containing just like
>quartz glass (just a suggestion). It does not exclude the idea of the
>frost on the top. But generally it should be caused by the "diffused"
>reflection, not by the "mirror" reflection.

Oh don't worry I was aware of the opposition effect already in 2003. But I still see a very important difference of brightness between 2003 and 2005 on opposition day.

The best I have found for 2003 have been taken by Stefan Buda on sept 1st :

<http://homepage3.nifty.com/~cmomk/2003/030901/SBd01Sept03.jpg>

Or Miyazaki

<http://homepage3.nifty.com/~cmomk/2003/030902/My02Sept03.jpg>

OM is clear but not "bright" (no B shot unfortunately). Now compare the brightness with my nov. 5th images in 2005 :

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

OM is now "bright white" and not only "clear". Opposition effect must play a role but is not enough alone... Hope that I did brought useful elements to our reflexion !

Best wishes

○.....Date: Sun, 10 Feb 2008 11:28:29 +0100
Subject: Mars, 7th feb 2008

Hi all, My first images after more than one month

<http://www.astrosurf.com/pellier/M080207-CPE>

Best wishes

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

●.....Date: Wed, 23 Jan 2008 12:14:49 -0800
Subject: Re: FW:Mars 19 January

Hi Masatsugu, Thanks for sending this. The cloud detail over Tempe in Don's B image is exquisite! Best wishes,

○.....Date: Tue, 05 Feb 2008 11:52:45 -0800
Subject: [Fwd: Historical globes of the Red Planet]

Hi Masatsugu, I thought you would enjoy this web page dedicated to "Historical Globes of the Red Planet".

<http://www.phys.uu.nl/~vgent/celestia/martianglobes.htm>
I took pictures last night but was thwarted by completely inoperable conditions... I'll keep trying this week. Hopefully, I'll be able to send images soon. Best,

○.....Date: Sun, 10 Feb 2008 13:26:32 -0800
Subject: Mars on 9 February 2008

Hi Masatsugu, Here's Mars on 9 February. I finally got

a sharp B image! It shows the orographic cloud over Elysium M with an interesting curved cloud connecting to a larger cloud over the south of the Aetheria dark patch. From there, you can follow the faint bright streaks south along the outside edges of the new double canal. See the attached high contrast B images. Best Wishes,

○.....Date: Sun, 10 Feb 2008 14:03:01 -0800
Subject: Re: [Fwd: Historical globes.....

Hi Masatsugu, You are welcome. I am fortunate to have an uncle who is prominent map historian. He sends me interesting Mars mapping tidbits when he finds them...

Thank you for the invitation to the Meudon conference in 2009! We may be having a family reunion in Germany in 2009, so this could work out very well. I hope to see you there! Please send me any registration details or further information on the conference.

I did survive all the "supers". I don't think I can say as much for the Democrats! Best Wishes,

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

●.....Date: Thu, 24 Jan 2008 12:24:14 +0900
Subject: 火星画像 AKM080123

こんにちは、セブの天気良くなり、火星が撮れるようになってきました。B光では南極、朝方周辺に霧、靄が漂っています。

○.....Date: Mon, 28 Jan 2008 19:41:03 +0900
Subject: 火星画像 AKM080126.AKM080127

こんばんわ、先週、土、日の火星画像を添付します。セブは天気良くなり晴れて火星が見えるようになりました。夕方には天頂近くになり、見上げるのが一苦労します。屋上の風の影響で筒がブレてしまっています。こちらで風除けの屏風を作りましたが材料が貧弱でだめでした。再度作り直しの予定で。火星がどんどん、小さくなりますが撮るつもりでいます。

○.....Date: Mon, 28 Jan 2008 19:52:58 +0900
Subject: Re: アルギュレ雲

返信 南様 まだ会社でメールしています。今夜は仕事上の会食があり、時間的撮れそうもありませんが、明日からご依頼の件を画像を撮ります。筒のブレとCP交換の最終調整なしで撮っていますが、まだ追い込みが必要かと思っています。CPの相性見たいのがあるのかもしれませんが。眼視では600倍でも見えていますのでOKかな?でもまだまだです。

○.....Date: Thu, 31 Jan 2008 12:18:00 +0900
Subject: 火星画像 AKM080130

こんにちは、昨夜の火星画像です。天気、気流が続かず、画像は連続で得られません。風も強く、厳しい条件です。

○.....Date: Sat, 2 Feb 2008 16:08:48 +0900 (JST)
Subject: 火星画像 AKM080131.AKM080201

こんにちは、日本では明日、関東地方で雪が降る予報ですね。セブは夜になると曇ります。

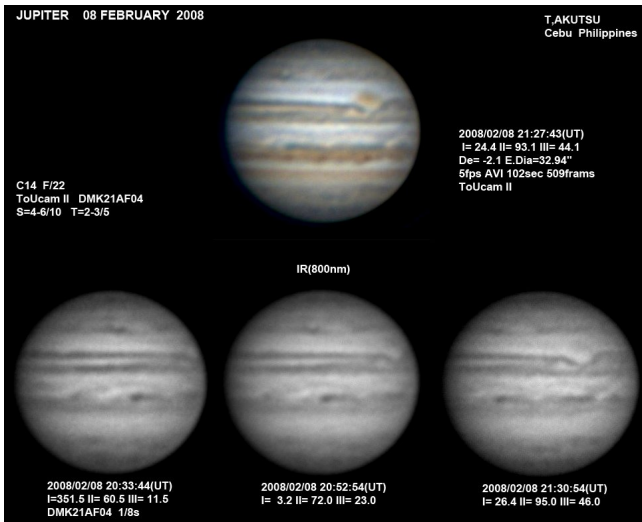
月末の画像です。雲の飛来が激しく、インターバルが守れず困ります。

○.....Date: Wed, 6 Feb 2008 18:05:42 +0900 (JST)
Subject: 火星画像 AKM080205

こんばんわ、昨夜の火星画像を添付します。風避けシートを作りました。その効果が絶大で大きな揺れがなくなり、良い像が得れるようになりました。アルギレ付近にかっかっているのは薄い雲でしょうか?

○.....Date: Sat, 9 Feb 2008 10:25:36 +0900 (JST)
Subject: 木星画像 J080208

こんにちは、今朝の木星画像、これは今期初めての画像です。低空の割には以外にも良く、今シ



ーズンの木星は先シーズンのパターンが続いているようです。RSはくりっとし、赤みがあります。STBは淡い。SEBはRS前方でSEBZが顕著。NEBは複雑な模様が入り乱れています。

○.....Date: Wed, 13 Feb 2008 10:02:28 +0900
Subject: Re: 画像

おはようございます。南さん宛ての画像が届いていないとの事で何か原因があるのでしょうか？失礼しました。次回から別別に送ります。

村上さんが入院とのことですが、元気になれるよう願っています。

今日のセブの天気は朝から雲が厚く、この分では太陽が見えない一日となるかも知れません。ひまわり画像では大きな雲があり、この雲がなくなるのは明日以降でしょうか？週末には晴れるかと思えます。

日本ではこの冬、雪が多く寒いということですが、お体に特に留意してください。

○.....Date: Mon, 18 Feb 2008 13:36:35 +0900
Subject: 火星画像 AKM080217

昨夜の画像です、やっと晴れ間に撮れましたが、条件が悪くいものとなりました。拡大率が上げてみましたが、気流が悪いので駄目ですね。

○.....Date: Mon, 18 Feb 2008 15:50:21 +0900
Subject: 今週の予定

明日の夕方、日本の社長がセブに来比、24日の朝、帰国の日程で私の部屋(ゲストルーム)に宿泊します。今夜の画像はOKですが明日以降、土曜日までは出来ないものと思ってください。

風対策の画像を添付します。画像のマイナス材料を改善することにより像は期待できますね。本来ならばこの屋上にドームがあるとベストなんです、それは無理というものでこらあたりが限界ですかね！

阿久津 富夫(Tomio AKUTSU セブThe Philippines)

●.....Date: Thu, 24 Jan 2008 06:16:23 -0800
Subject: Mars January 21

Poor-to-fair seeing this evening. Fortunately, Mars is still large enough to overcome the conditions.

○.....Date: Tue, 12 Feb 2008 11:02:54 -0800
Subject: Mars 2/6/2008

Here is a shot of Mars taken from the Winter Star Party in the Florida Keys. We decided to try and shoot just before sunset to capture orographic clouds over the Tharsis volcanoes and Olympus Mons. I believe we succeeded.

Many thanks to Don Parker for use of his excellent

Takahashi Mewlon 250- now I know why they are so expensive! Also, hats off to Damian Peach for manning the scope each evening, even in gale force winds. On this occasion, the seeing was only good to very good.

Many more images to come.

○.....Date: Tue, 19 Feb 2008 12:44:53 -0800
Subject: Mars, February 4

Attached are three image series recorded February 4th using Don Parker's 250mm Takahashi Mewlon from Spanish Harbor Key, Florida (thanks Mongo!). Seeing was excellent, about 9 of 10. Many thanks to Damian Peach for turning the filter wheel, and Sheldon Faworski for his entertaining verbal commentary.

○.....Date: Wed, 20 Feb 2008 12:57:14 -0800
Subject: Venus 2/7/2008

A return to an old friend under the sunny skies of the Florida Keys, just before local noon.

Sean WALKER (ジョン・ウォーカー S&T 美)

●.....Date: Thu, 24 Jan 2008 23:52:21 +0900
Subject: Mars-2008-01-24-KUMAMORI

久しぶりに撮影可能時間帯に晴れましたが、気流はガタガタです。このまま火星は小さくなってしまいそうです。

○.....Date: Sat, 26 Jan 2008 23:34:10 +0900
Subject: Mars-2008-01-26-KUMAMORI

またまた撮影可能時間帯に曇ってきて、1ショットしか撮影できませんでした。白雲が強調されていますが、確認する時間ありませんでした。

○.....Date: Sun, 27 Jan 2008 22:20:35 +0900
Subject: Mars-2008-01-27-KUMAMORI

毎日、嫌になります、またまた撮影可能時間帯に曇ってきて、1ショットしか撮影できませんでした。Chryseが明るく写っています。また、合成すると消えてしまうのですが、中央右下もカラー(RGB)で、やや明るく写っています。

よろしく願いいたします。

熊森 照明 (Teruaki KUMAMORI 堺 Osaka)

●.....Date: Fri, 25 Jan 2008 00:04:42 -0000
Subject: Afocal DSLR Ha

Hi Guys, After taking a few images of today's proms by the normal method, I pointed my Nikon D40 DSLR, at a 24mm panoptic in the filter. all on infinity, and popped few off. this was the result, very promising. Colour is as per the camera. Best wishes

○.....Date: Tue, 29 Jan 2008 11:05:58 -0000
Subject: Mars 27 Jan 2008

Hi Guys, Some clear sky and some decent seeing at last, allowed the departing Mars to be captured. A 2005 comparison images has been added. Quite a different appearance just now in this region. There is a brighter "condensation" just visible in the NPC, Accepting that it is near the pole so would not appear to go far during the period of capture, I fancy, that it has moved too little. My question Richard, is this the actual polar cap? C14 2inch diagonal 4x powermate trutek filters skynix 2.0.

○.....Date: Wed, 30 Jan 2008 17:47:39 -0000
Subject: saturn on the 29th Jan

Hi Guys, Following the good seeing we had for Mars the other evening, we had a pretty good night for Saturn. No transits or storms were noted, but it was most enjoyable.

○.....Date: Wed, 30 Jan 2008 22:10:16 -0000
Subject: DEW INSIDE CORRECTORS Hi Guys, I have read several mails containing sad tales of SCT correctors dewing up on the inside. I thought I would share

my solution to the problem. After an imaging session, I slide the device shown in the picture, into the 2 inch hole in my C14 focus mount. The end with all the holes in appears from within the baffle tube and is exposed in the space between the secondary and the baffle tube. It kept me mist free last winter, and I renewed the silica gell at the begining of this winter. OK, it will touch the inside of the baffle tube, but I think this is a lesser problem. One extra thing, I also put a layer of black insulation tape on the tube, just to seal the tube to the end castings.

Best wishes

○ · · · · · **Date: Thu, 31 Jan 2008 21:18:00 -0000**
Subject: Some solar activity 30th Jan

Hi Guys, Here are some images from the 30th. This feathery prominence is about 28000 miles high. The enormous filament and the Ha disturbance seems to be linked. This is a montage of two images. Best wishes

○ · · · · · **Date: Sun, 3 Feb 2008 16:02:07 -0000**
Subject: solar 1 feb 2008

Hi Guys, Here are some images from the 1st of Feb showing progress of Spot group 0982 and its associated filaments. The 1207ut wide field shot is a montage of 2 overlapping images, taken at the 54" prime focus of a 6 inch $f/9$ Vixen, which was stopped down to 60mm to keep the f ratio somewhere towards the "happiness" band for the Daystar filter; this is $f/30$, but I was running it at $f/22.8$. The 1221 ut file "tilting sun"

<http://www.atoptics.co.uk/tiltsun.htm>

graphic is used to show the approximate positions of the phenomena. The camera is aligned with the scope's dec axis, and therefore aligned on the 0-180 degree line on the tilting sun. The images are scaled to match the radius of the graphic and then cut en' pasted so as to match the circumference. The 1214ut image was taken as per the inset "montage spacefilling" picture, including the 4.5" ERF, and a 2x powermate fitted with an IR blocker. The camera is a Lumenera 075 running at 60 fps. There are three frames in the montage. Fl was 208 inches. The 1221 image is of quite an active prominence. Attached is a 4 frame gif. The last 3 frames are at 1 min intervals. The Prominence, measure by pixel counting, is about 27600 miles high. Best wishes

○ · · · · · **Date: Thu, 7 Feb 2008 10:24:00 -0000**
Subject: Mars 6th feb 2008

Hi Guys, Seeing was fair last night for imaging Mars. The clouds mapped out by the blue image can just be seen on the rgb. I notice on Jupos, that Mars will stay over 10 arc secs dia for the next 12 days and will then drop to 7 secs by the end of March, so plenty of time to image it yet. It will be not too far west of the meridian at a half an hour after sunset. Best wishes

○ · · · · · **Date: Sun, 10 Feb 2008 09:09:49 -0000**
Subject: The last of spot 0982

Hi guys, This is an image of (a prettywell spotless in Ha) spot 0982, about to go off the solar disc.

○ · · · · · **Date: Sun, 10 Feb 2008 22:05:04 -0000**
Subject: mars 8th Feb 08

Hi guys, The UK is basking in Sunshine just now and with only a little jet stream. 16°C in the dome during solar imaging, and dropping to 2°C at night. Seeing was fair to good for the attached image, Bets wishes

○ · · · · · **Date: Mon, 11 Feb 2008 17:39:39 -0000**
Subject: Sat 10 feb 08

Hi Guys, Seeing was up and down on the 10th. Note the RGB Channels; A good red, fair green, and a yukky blue. Still, it was nice to have a go at my favourite

planet. It is the coldest one to image, as one sits still for so long at the twiddle control. It was apparent on screen during the capture of the mono's, that the NH was darker than the S Hemisphere. C14 $f/38.5$ trutek filters skynyx 2.0. Best wishes

○ · · · · · **Date: Thu, 14 Feb 2008 14:10:43 -0000**
Subject: Mars clouds 8th to 12 Feb 2008

Hi guys, This is 5 days of Mars imaging. I have included just the blue channels with the RGBs, so as to show the cloud comparisons. I notice the the area south of Sinus Meridiani is still well filled with yellow dust. Bit of a blot on the landscape. Best wishes

○ · · · · · **Date: Sat, 16 Feb 2008 02:04:42 -0000**
Subject: solar prom 11th feb

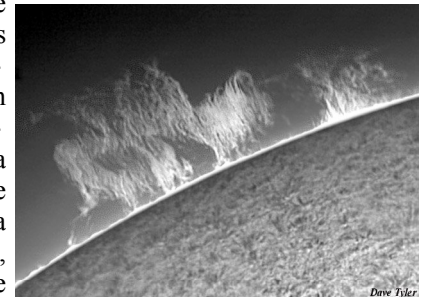
Hi guys, Here is another from the 11th, this is, I believe, the filaments associated with spot 0982 going over the edge of the disc. Best wishes

○ · · · · · **Date: Tue, 19 Feb 2008 00:46:34 -0000**
Subject: prom 17th feb

Hi guys, There is a prominence currently at this position angle; This is an image of it from the 17th. Best wishes

○ · · · · · **Date: Sat, 23 Feb 2008 20:17:28 -0000**
Subject: Solar Prom 18thFeb

Hi Guys, The Prominence at this position angle developed beautifully on the 18th, when decent seeing allowed a more detailed image than of late. I made a colourised image, but preferred the mono. The maximum height was over 46000 miles.



Best wishes

Dave TYLER (テラ イト・タイラー Bkh 英)

● · · · · · **Date: Sat, 26 Jan 2008 02:34:06 -0000**
Subject: Mars 2008/01/20

Mars images from January 20

<http://www.astrosurf.com/pcasquinha/mars080120.jpg>

Best regards

○ · · · · · **Date: Sun, 27 Jan 2008 21:45:24 -0000**
Subject: Mars 2008/01/24

Mars image from January 24

<http://www.astrosurf.com/pcasquinha/mars080124.jpg>

My best regards

○ · · · · · **Date: Fri, 1 Feb 2008 00:59:59 -0000**
Subject: Mars 2008/01/26

Mars on January 26

<http://www.astrosurf.com/pcasquinha/mars080126.jpg>

My best regards

Paulo CASQUINHA (ハ ウル・カスキニャ Portugal 葡)

● · · · · · **Date: Sat, 26 Jan 2008 19:43:23 +0100**
Subject: Mars 22 januar

Hi Fellows, It becomes very quiet around Mars lately concerning the amount of observations, there are o so few opportunities to image this season, lucky 22 januar was a clear night above the netherlands. Seeing was rather chaotic but little surprised what came out... even Zea Lacus can be seen in Hellas, the NPC seems somewhat mottled. Nice thing (or not!!) was that a plain flew over Mars during the capture (see att. movie). Mars is shrinking fast best wishes

○ · · · · · **Date: Thu, 7 Feb 2008 00:59:21 +0100**
Subject: mars 6 februar

Hi Fellows, Here a capture of tonight, Everything looks

○ · · · · · **Date: Mon, 04 Feb 2008 15:37:39 +0000**
Subject: Mammoth prominence, 2008 Feb 04

Hi all, Still wading through rather a copious number of AVI captures obtained over the last week or so. I've had to jump a day to deal with this image, but there's a rather lovely "mammoth" shaped prominence on the south-western limb today. That's it really - now back to the wading.



Best regards,

Pete LAWRENCE

○ · · · · · **Date: Tue, 5 Feb 2008 13:57:40 -0000**
Subject: 0982 and large Prom

Hi guys, The sun gave a nice display yesterday the 0982 Filament was still there, as well as some spectacular H α disruption. The large prominence bore an uncanny resemblance to one of my large fluffy cats (*Boss*). Put the images alongside and compare. Boss is a keen astronomer and enjoys the observatory atmosphere.



I imaged the Prominence twice with the 6 inch Vixen; once at 108"fl stopped to 4.5" dia and with 172"fl. at full aperture. I actually used a 2 \times barlow stretched to 3.2 \times . One reads that telecentrics and powermates are recommended for use with focal plane H α filter, but this TV barlow worked ok as you can see. Seeing was only fair, with typical low altitude highspeed shimmering / ripple. The three frame montage was at imaged 108 inches fl.

Best wishes

Dave TYLER

pretty normal on the blue image lots of clouds on the edges and around the south pole, the npc is a thin slipher. best wishes

○ · · · · · **Date: Sun, 10 Feb 2008 23:11:24 +0100**
Subject: mars 9 februar

Hi Fellows, Here a capture from yesterday, regretly never reached equilibrium during the night, day temps of 14 degrees, night at lowest -4..causing many edge artifacts despite that the blue southern hood is striking, also Chryse seems moderatly bright at the evening limb. best wishes

Jan ADELAAR (ヤン・アテラール Arnhem 荷蘭)

● · · · · · **Date: Sat, 26 Jan 2008 21:10:21 +0000**
Subject: Mars 24 January

Hi All, I have attached some Mars images from 24 January. There were prominent localized clouds from terminator over M. Acidalium & Nilokeras. Bright cloud over Argyre. Notch into NPC at 61-65°N, 7.6°W, corresponding to the classical "Arius." Pandora Fr. not visible: Deacalonis dusky, expanded southward. Best,

○ · · · · · **Date: Mon, 28 Jan 2008 19:46:09 +0000**
Subject: Re: Happy Birthday

Dear Masatsugu, Thank you for the wishes. It looks like the seeing will not cooperate for Mars tonight. Instead I am going to try to capture asteroid 2007 TU24 as it make a close approach to the earth. In doing doing deep sky imaging I feel like a traitor -- going over to the "Dark Side!"

Efrain Rivera posts his excellent images on the mars observers site:

<http://tech.groups.yahoo.com/group/marsobservers/>

He does very nice work. The seeing in Puerto Rico is usually very good. He should be encouraged to post on the CMO site as well! All for now.

Best and hope to see you in 2009!

○ · · · · · **Date: Tue, 29 Jan 2008 21:54:35 +0000**
Subject: Asteroid 2007 TU24

Hi All, Here's a link to an animation I shot this morning of the near-earth asteroid fkyby. Apparently the asteroid was fainter than predicted, being nearly 12th magnitude. It moved fast!

<http://www.skyandtelescope.com/index.html>

○ · · · · · **Date: Wed, 30 Jan 2008 00:05:07 +0000**
Subject: Mars 25 January

Hi All, I have attached some Mars images from 25 January. There was a cloud over southern Hellas, curving down along the Hellespontus. Detail on the floor of Hellas in red light. Cloud streaks over S. Noachis and terminator clouds over Cydonia. Best,

○ · · · · · **Date: Fri, 01 Feb 2008 01:26:04 +0000**
Subject: Mars 31 January

Hi All, I have attached some Mars images from 31 January. There is an orographic cloud over Elysium on PM limb and a high southern limb cloud over Eridania. The Aethiopsis streak is prominent. Best,

○ · · · · · **Date: Tue, 19 Feb 2008 06:06:56 +0000**
Subject: Mars 15 Feb.

Hi All, I have attached some Mars images from 15 Feb. Weak Tharsis orographics with Asraeus Mons being the most prominent. Bright terminator cloud near Propontis I. Sirenum Extension dark. Best,

○ · · · · · **Date: Fri, 22 Feb 2008 05:03:09 +0000**
Subject: Mars 19 Feb.

Hi All, I have attached some Mars images from 19 Feb. Many clouds visible over Tharsis, Candor, Argyre, and the AM terminator. Olympus Mons dark and reddish. Asraeus, Pavonis and Arsia visible, but no definite orographics visible over these...it was a bit early in the Martian day for these to become conspicuous. Best,

Don PARKER (唐那·派克 Miami FL 美)

● · · · · · **Date: Sun, 27 Jan 2008 01:37:53 +0100**
Subject: Mars 2008.01.20

Dears, Mars under good seeing, unfortunately the kind of turbulence I had generated a very strong edge artifact: <http://astrosurf.com/delcroix/images/planches/me.php?y=2008&m=1&d=20>

Please note the haze south of north polar cap, on the south of the globe and near the limb. Clear skies,

○ · · · · · **Date: Sun, 27 Jan 2008 18:38:11 +0100**
Subject: Mars 2008.01.25

Dears, Mars under bad conditions, don't spend too much time on it but as it's prepared, here are the images:

<http://astrosurf.com/delcroix/images/planches/me.php?y=2008&m=1&d=25>

○ · · · · · **Date: Wed, 30 Jan 2008 22:48:03 +0100**
Subject: Mars 2008.01.26

Dears, Mars under average seeing and transparency:

<http://astrosurf.com/delcroix/images/planches/me.php?y=2008&m=1&d=26>

○.....Date: **Wed, 30 Jan 2008 22:49:48 +0100**
Subject: Mars 2008.01.28

Dears, Mars not much better than the previous one 2 days ago, under average seeing and transparency:

<http://astrosurf.com/delcroix/images/planches/me.php?y=2008&m=1&d=28>

Apparent diameter is decreasing now very fast.

○.....Date: **Sun, 3 Feb 2008 16:53:28 +0100**
Subject: Mars 2008.02.02

Dears, Mars under correct seeing last night with details despite an apparent diameter below 12 arcsec:

<http://astrosurf.com/delcroix/images/planches/me.php?y=2008&m=2&d=2>

Atmospheric formations can be seen (especially on the blue layer), a semi transparent south polar hood, orographic cloud on Olympus Mons, limb haze and maybe a bar of clouds starting in Elysium?

○.....Date: **Sat, 16 Feb 2008 23:37:41 +0100**
Subject: Mars 2008.02.15

Dears, Mars under good seeing yesterday:

<http://astrosurf.com/delcroix/images/planches/me.php?y=2008&m=2&d=15>

Despite the usual artefact, i caught a good view of north polar cap, the autumnal south polar hood (which was very bright in the eyepiece) and the hazes on the limb, especially north of Tharsis - all of this is clearly seen on the blue layer. The 3 volcanos of this high plateau are also easily seen. Clear skies, <http://astrosurf.com/delcroix>

Marc DELCROIX (マルク・デルクロア Tournefeuille法)

●.....Date: **Sun, 27 Jan 2008 15:04:46 +0900**
Subject: Mo06 09 21Jan 08

パソコンの不調で撮る事も処理も暫く出来ませんでした。ようやく回復し撮れるようになりました。遅くなりましたが06 09 21Janをお送りします。

○.....Date: **Wed, 6 Feb 2008 23:54:08 +0900 (JST)**
Subject: Mo27 31Jan 08

やっと27 31Janが出来ました。最近ではSeeingも天候も良くありません。

○.....Date: **Tue, 19 Feb 2008 00:08:33 +0900**
Subject: Mo04 07 10Feb 08

04 07 10日をお送りします。15日にも撮っています。また後ほどにお送りいたします。

最近では晴れていると雪が舞うことがあります。どうも望遠鏡を開けていられず、なかなか観測が出来ずにいます。

森田 行雄 (Yukio MORITA 廿日市 Hiroshima)

●.....Date: **Sun, 27 Jan 2008 18:44:44 +0100**
Subject: 26_01_2008 Mars

With the same Watec RCA camera and my T250 chinese telescope... In my observatory in Canyelles.

Best regards

○.....Date: **Sun, 17 Feb 2008 23:12:46 +0100**
Subject: Re: 09_02_2008 Mars

Dear friend. Beacuse I arrive to my house after work too late each night for imaging Mars, I thought that my Mars watch this year was finished some weeks ago.

But last weekend a friend give me the chance to test a new color camera (Luna 1,3, from Lunatico.es). This is the result. I wonder if the white detail near the pole can be clouds. Best regards.

José Antonio SOLDEVILLA GONZALEZ

(ホセ=アントニオ・ソルテヒョーヤ nr Barcelona 西)

●.....Date: **Mon, 28 Jan 2008 12:06:20 +0000**
Subject: Mars 27-Jan-2008 CM=250.7

Hi all, First clear night at home for me for ages. Seeing was fair. Nothing exceptional to report.

<http://tinyurl.com/2yf5hb>

May get another image out of a few more AVIs taken an hour later. Regards

○.....Date: **Thu, 07 Feb 2008 11:24:34 +0000**
Subject: Re: Mars 6th feb 2008

Hi Dave, We were out at exactly the same time it seems! Here's mine from 19:46 (red) also taken in fair seeing:

<http://tinyurl.com/2g63pn>

Nice cloud just above Propontis Complex. Regards

○.....Date: **Sat, 09 Feb 2008 10:35:48 +0000**
Subject: Saturn 09-Feb-2008

Hi all, Here's Saturn in fair to good seeing last night.

http://www.astro-sharp.com/images/saturn2008/sat_2008-02-09_00-08_IDS.jpg

○.....Date: **Tue, 19 Feb 2008 09:57:08 +0000**
Subject: Two Mars images 16/18 Feb 2008

Hi all, Seeing was fair for these 2 images.

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

Regards

Ian SHARP (イアン・シャープ WS 英)

●.....Date: **Mon, 28 Jan 2008 23:05:12 +0000**
Subject: Mars 2008 Jan 26, CM 299.3

Hi all, Here's a Mars capture from just past midnight on the 25th January '08 under average seeing and transparency conditions. Best regards,

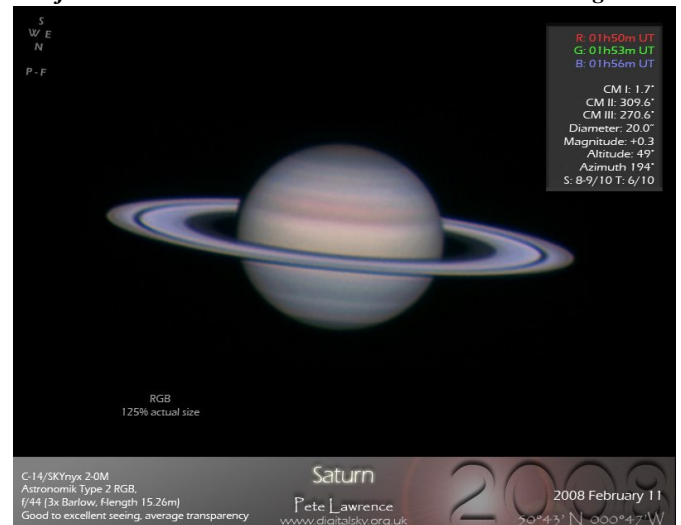
○.....Date: **Fri, 08 Feb 2008 09:05:28 +0000**
Subject: Mars, Jan 30th 2008, CM 194.1

Hi all, This one's been sitting in a minimised Photoshop window for a while asking me to finish it, so here it is. Mars, taken on the 30th Jan 2008 under fairly average seeing conditions. Noticeably smaller now, it feels like the planet has come and gone in a flash (not that it has entirely gone of course!). Best regards,

○.....Date: **Sun, 10 Feb 2008 10:52:49 +0000**
Subject: When a filament becomes a prominence

Sounds like it should be the title of a song! Here's a shot of one of the recent filaments reaching the edge of the Sun and turning into a prominence. Best regards,

○.....Date: **Tue, 12 Feb 2008 23:44:43 +0000**
Subject: Another Feb 11th Saturn under excellent seeing



Hi all, Here's another Saturn from the 11th Feb taken under slightly better seeing conditions than my last submission. There appear to be some lighter patches visible on this result. I have another set to run through which was taken ~20 minutes later than this result. Hopefully this will confirm whether these features are real or artifact. Best regards,

Pete LAWRENCE (ピート・ローレンス Selsey 英)

●.....Date: Tue, 29 Jan 2008 11:17:34 +0100
Subject: Mars 28th January 2008

Dear Minami, Please, find attached a new image of Mars of this last night. This time I have included the R, G and B channels plus the RGB image. Best regards,

○.....Date: Sat, 9 Feb 2008 17:59:49 +0100
Subject: Mars 5th February 2008

Dear Minami, Please find attached a new Mars image of past 5th February. It seems to show orographic clouds in the zone of Phlegra Montes. In the center of the image Olympus Mons is clear but the other volcanos of Tharsis are hardly visible. On the other hand, in the South Pole, the image shows clouds in the zone of Aonia Terra and

Terra Sirenum. Best regards,

○.....Date: Sun, 10 Feb 2008 21:05:21 +0100
Subject: Mart 9th February 2008

Dear Minami, Please find attached a new image of Mars. The only remarkable thing are two reddish spots near the Nort Pole that I don't know what they are.

Best regards,

○.....Date: Sat, 23 Feb 2008 13:58:47 +0100
Subject: Mars 22nd February 2008

Dear Minami, Please, find attached a new image of Mars of this past night. Best regards,

○.....Date: Sun, 24 Feb 2008 11:25:43 +0100
Subject: Mars_22nd_February_2008_(CML=22°W)

TEN YEARS AGO (150)

----CMO #200 (25 February 1998) pp2227-2242----

本号は200号の節目で、巻頭には、記念の寄稿が、Samuel WHITBY (Virginia USA) ・比嘉保信氏(沖縄) ・筆者(Mk) (神奈川)と、三編紹介されている。

次いで、1996/97 Mars Sketch (2) で "Movement of Warm, Moist Air from the Arctic Area to the Equatorial Band" 「北極値から赤道帯への水蒸気の移動と赤道帯霧」と題して、北半球の春分(000°Ls)過ぎから起こる大気現象についての考察である。1996/97年接近期の観測から、赤道帯に見られた東西に連なる帯状の薄い霧(EBC)の様子を $\lambda=050^\circ\text{Ls}$ ころから概観している。CCD青色光の観測では $\lambda=070^\circ\text{Ls}$ 過ぎには赤道帯霧が認められるようになり、 $\lambda=080^\circ\text{Ls}$ に達すると眼視観測でもたびたび観測されるようになってきている。宮崎勲氏の下記の画像($\lambda=103^\circ\text{Ls}$)にも捉えられている。また、この期間に得られたHSTの青色光画像にも詳細が捉えられていて、097°Lsから180°Lsまで多数引用されている。145°Ls頃では北半球の高緯度朝方に霧が認められるが赤道帯霧は弱まっている。北半球の秋分(180°Ls)の画像には考察どおり赤道帯霧は認められなくなっている。今2007/08年観測期後半には、視直径は小さくなるが、この季節に入り、来期のこともあるからから再読をお勧めする。CMO-Webでは次を見られたい：

<http://homepage2.nifty.com/~cmo/97Note02.htm>

OAA MARS SECTION Reportは、宮崎勲(My)氏からのCCD画像の追加報告が取り上げられた。1997年三月と四月の四画像で、12Aprの画像はCMOのサイトに和英文共に収録されている：以下を見られたい。

<http://www.mars.dti.ne.jp/~cmo/sec96/022/sec022j.html>

<http://www.mars.dti.ne.jp/~cmo/sec96/022/sec022.html>

LtEは、Francis OGER (France), Giovanni QUARRA (Italy), Samuel WHITBY (USA), Nelson FALSARELLA (Brasil), Frank J MELILLO (USA), Jim BELL (USA) の外国の諸氏から、国内からは、比嘉保信氏(沖縄)、宮崎勲氏(沖縄)、阿久津富夫氏(栃木)のお便りが載っている。

20年前のTYA(30)は、CMO#045(10Feb1988)とCMO#046(25Feb1988)の記事の紹介で、当時、火星は朝方の「いて座」にあって、日の出前のわずかな観測時間がとれるだけであった。視直径は5秒角にすぎなかった。23Feb1988には天王星とかなり接近している。1986年のパーカー氏の火星写真の紹介記事が連載されていた

村上昌己 (Mk)

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火星 通信 No. 200

25 February 1998

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『火星通信』第三巻記念寄稿
Messages to CMO No. 200

● Samuel WHITBY

I want to thank you and the OAA for welcoming observers from around the world. Your generosity has helped many of us to get to know each other's work and some of us to get to know each other and to appreciate and value different ways of doing things. When one knows that his observations will be appreciated, studied, and critiqued in a timely manner, he naturally becomes more motivated to do the best work possible. By fostering communication, the CMO has helped to maintain high standards and has encouraged observers to continue to observe, in spite of the difficulties and frustrations of living in a larger society that may not find astronomy meaningful. Moreover, I think that, by encouraging communications between people from different countries, you have helped the cause of friendship and peace. Congratulations, for an important job well done.

With the approach of the 200th issue of the CMO, it may be worthwhile to look back (very briefly) at the amateur observation of Mars and at its current state and to try, however imperfectly, to foresee the future.

In the distant past when I was a child there were observational data and many questions. Were there really canals on Mars? If so, what

were they? Was there life on Mars? Were the changes in albedo features due to the life cycles of Martian plants? What was the nature of the clouds observed on Mars? And so forth. We had good reasoning and good theories but not answers. The answers came largely as a result of the spectacular missions of the Mariners and Vikings.

In the 70s, during the successes of the space probes, there was much speculation that there was nothing left for amateur planet observers to do. There was a decline in membership in some organizations and a decrease in the number of observations submitted. With the wonderful success of the Pathfinder and, it still seems at this time, the Global Surveyor, one could draw a parallel between that time and ours and ask if there is still any room for amateurs to contribute to the planetary science of Mars.

The answer is qualified but heartily affirmative, for several reasons. In the first place, if there had not been observations from Earth, there would not have been questions that would have called for answers from advanced technology. If, for example, observers on our planet had not seen the domino clouds, there would have been no reason for them to be targeted by remote cameras and no reason to explain them as the orographics. If observers on the Earth had not seen the "yellow" and "white" clouds, there would not have been the interest in their nature, dust or vapor. There is no reason to believe that we have stopped getting things that will puzzle us and make us long for better views and better understanding. One of our

2 2 2 7

Dear Minami, Here is a new image of Mars taken one hour later than the previous one. I am sending this one because it shows some kind on nucleus on the northern clouds, not visible in the later image. The clearest one is on the West side featuring a double nucleus and the second one is close to the central meridian. This is better visible in the green channel rather than in the blue channel where I would expect to find them. They could be image processing artifacts but my personal impression is that these are a real cloud details. Best regards,

Jaume CASTELLA (ファウメ・カステラ Badalona 西)

●.....Date: Tue, 29 Jan 2008 13:37:08 -0600
Subject: Mars 27-October-2007

Dear Masatsugu & Masami, Attached is a set of Mars images from last October 27th. The weather has been cloudy here for the past few weeks. I was missing Mars so I decided to go back and try to recover the images I took from that evening in last October. I had some technical problems which had prevented me from processing them sooner. Hopefully it's not too late to add to the archive. Waiting for the clouds to clear,

○.....Date: Sat, 9 Feb 2008 09:15:22 -0600
Subject: Mars 07-February-2008

Dear Masatsugu & Masami, Attached is a set of Mars images from February 07. We finally had some clear skies here. The seeing was not real great but still managed to capture some interesting mist or clouds in the southern latitudes. Best regards,

○.....Date: Sun, 17 Feb 2008 11:08:49 -0600
Subject: RE: Mars 07-February-2008

Dear Masatsugu & Masami, Attached is a set of Mars images from February 14. I hope all is well there.

Best regards,

○.....Date: Wed, 20 Feb 2008 15:13:57 -0600
Subject: Mars 19-February-2008

Dear Masatsugu & Masami, Attached is a set of Mars images from February 19. A very bright cloud is shown over Argyre. The seeing was variable during the exposures making it difficult to get a good consistent color balance (especially in the NPH region) in the composite image. Best regards,

○.....Date: Thu, 21 Feb 2008 09:06:58 -0600
Subject: RE: Mars 19-February-2008

Dear Masatsugu, Glad to hear that Masami is back from the Hospital and it was not serious. I wish him well!

Yes, it's kind of sad to watch how rapidly Mars is shrinking these days. It's also getting more difficult to catch it before it goes behind the trees in the backyard. On March 1st Mars will be transiting here just as Astronomical twilight ends. Looks like I will be able to image Mars from home for only a few more weeks.

Best Regards,

Bill FLANAGAN (ビル・フラナガン Houston TX 美)

●.....Date: Tue, 29 Jan 2008 18:34:34 -0600
Subject: mercury

Dear Signor Frassati, I hope you will forgive me for writing in English. I have long been a great admirer of your work, and just received from my friend Richard Baum a copy of your latest map of Mercury, which is exquisite. It is obviously the best chart ever made on the basis of visual observations with a small telescope.

I was also very enthusiastic about your earlier chart, which was published in J. Br. Astron. Assoc. 1112, 3, 2002. As someone who has long been especially interested in Schiaparelli's classic work on the planet, I was naturally quite interested in the way you depicted his

figure-of-5 --the curving darkish area that includes Solitudo Cripori, the extension you mark with the Greek letter gamma, and the Solitudo Phoenicis on your earlier chart. These make up the lower part of the figure-of-5 adjacent to the brightish area--basin--you marked c. This region is, of course, in the zone that was not photographed by Mariner 10 and so is now coming into view, at least in part, in the Messenger images, whose zone of coverage seems to be approximately 94 to 274.

It seemed to me that in your earlier chart the figure-of-5 shows up plausibly well, but it is not as clearly indicated on your present chart. Do you have among your drawings any that show the figure-of-5 effect strikingly well? This is a subject that strongly interests me.

On another matter--I do not know if you are aware of the fact that a major meeting of Mars observers and historians is being planned at Meudon Observatory in September 2009, in commemoration of E. M. Antoniadi's great Mars observations a century earlier. Audouin Dollfus has agreed to be honorary chair, and there will be many French astronomers represented--the meeting is being sponsored by the *Société Astronomique de France*--but we are also trying to get attendees from other countries, especially Italy.

Masatsugu Minami is going to represent the Japanese, and Don Parker and myself are among those attending from the U.S. I am hoping to get Richard Baum there --I assume that you two have never met-- and Richard McKim will attend if he is able.

If you would like further information about the meeting, please let me know.

Again, with great admiration for your splendid work, I am yours sincerely,

○.....Date: Fri, 8 Feb 2008 17:04:06 -0600
Subject: notes on schiaparelli

Dear Richard, I recently transcribed my notes on Schiaparelli, taken during my visit with Pasquale Tucci at Brera in March 2001, and have included them as an attachment. I had not remembered, until I consulted them, just how thoroughly geometric was Schiaparelli's cast of mind. It certainly underscores the difference in his attitude to that of Green, as Webb called out.

These notes will somehow need to be worked into the chapter on Schiaparelli for "Men of Mars." At this point they are ore that still needs to be melted down and cast into ingots. Ever,

○.....Date: Mon, 11 Feb 2008 17:04:59 -0600
Subject: notes

Dear Masatsugu, Thank you for cc'ing me on your very fine discussion of the north polar cap's progression and the thoughts about the orographic clouds of Olympus Mons. It will be a grand project for us to seek flare events from Mons Olympus at the northern presentations--have you computed times when this will be observable? Perhaps I could come to Fukui to observe with you--or we can have another go at Lick (this time without the obnoxious Brit...)

I am currently working on a planets book--I know you are very busy, but would you be willing to write a brief synopsis of your thoughts about the Martian dust storms and meteorology that I could include (under your by-line) as a sidebar. Your understanding of these phenomena is that of the true master--you are a deep and subtle thinker on these subjects--and I would like to distill the wisdom you have accumulated from your more than fifty years of deep study.

I am continuing to push ahead with making contacts for the meeting in Meudon--I am really looking forward to it immensely. With kind regards, my Martian master,

Bill SHEEHAN (ウィリアム・シーハン MN 美)

●.....Date: Wed, 30 Jan 2008 02:34:01 +0000
Subject: Mars 2008 January 28

This is the best result from a rather poor time recently. The night of 27/28 Jan cleared when Mars was already getting low, but there was some rather good seeing in misty conditions, in which I also had briefly a fine visual view of Saturn, before fog obscured all.

The channels were faint, particularly the blue, which is consequently noisy.

Hellas is looking much more normal in albedo now.

<http://www.darditti.dircon.co.uk/mars2008-01-28-DLA.jpg>

○.....Date: Thu, 7 Feb 2008 22:07:34 +0000
Subject: Mars 2008 February 01

Very poor seeing. The bright mist patch in the Palinuri Fretum area, on the limb in the S, is notable; it is present in Dave Tyler's images of Jan 27 as well.

<http://www.darditti.dircon.co.uk/mars2008-02-01-DLA.jpg>

David ARDITTI (デヴィッド・アーデイチ Edgware ME 英)

●.....Date: Thu, 31 Jan 2008 13:24:36 +0100
Subject: Re: Crater Walter, Vallis Alpes, ...

Hi James,

> I've captured these before with the toucam and my trusty ETX125 but
> moving up to a C9.25 and a Lumenera is just giving me a world new
> world to play with ! ...

I had the same feeling, when I used first my new DMK 21AF04.As Camera! Much better signal/noise ratio, better dynamics and sharpener pictures because of black/white Chip :-))...

> I'm pleased with the Vallis Alpes image because i've never managed to
> get any features on the floor and i've got some (faint I know) on this
> image. I did try to boost up to a 3x Barlow, but the seeing didn't
> allow it.

Did you ever try a infrared filter? Not a "cut away", one who let IR light trough. My experience is, that an 742 nm Filter from Astronomik helps a lot decreasing seeingproblems. best wishes

◆.....Date: Thu, 31 Jan 2008 10:01:04 -0000

>Subject: Crater Walter, Vallis Alpes, StraightWall and Crater W Bond

> All, Please find 4 images of various craters / features taken on the 16th
> January 08.

> While it wasn't the best seeing night in the world, this phase of the
> Moon was rich with so many features to image.

> I've captured these before with the toucam and my trusty ETX125 but
> moving up to a C9.25 and a Lumenera

> is just giving me a world new world to play with ! ...

>>I'm pleased with the Vallis Alpes image because i've never managed to get
> any features on the floor and i've

> got some (faint I know) on this image. I did try to boost up to a 3x
> Barlow, but the seeing didn't allow it.

>>And the Straight Wall image, has an almost 3D effect to it !

>>What amazes me the most, is all the little details that you don't really
> see in the eyepiece and that spring up

> during after the images have been stacked.....love it<

> JJ (James JEFFERSON, BBC)

Silvia KOWOLLIK

(シルヴィア・コワロリク Ludwigsburg 徳)

●.....Date: Thu, 31 Jan 2008 19:27:19 +0100
Subject: Re: mercury

Dear Mr. Sheehan (and all), thanks for your kind e-mail and your very kind words about my Mercury observations! Here some of my drawings of Mercury. You can see the drawings of 2002 april 17/25 and 27 with Solitudo Ciphori and Solitudo Phoenicis (CM 220°-254°-263°). I hope will be useful. Kind regards

Mario FRASATTI

(マリオ・フラサッチ Crescentino VC 義)

●.....Date: Fri, 1 Feb 2008 11:20:34 +0900

Subject: 平信

南 政次様 お元気で新しい年をお迎えになりましたことと存じます。小生もお蔭様で恙無く過ごしております。一月も終わりましたが、月末にOAA理事長の菊岡さんが急逝され、一昨日お葬式に参列いたしました。一月20日の大阪支部例会で、ご本人と『天界』のことなどいろいろ話していただけない、悲しみも一入ですし、自分より若い人の死は、やりきれない思いがあります。

小生の火星は、昨年七月下旬から始めましたが、不順な天候と、悪気流、低透明度などのためスケッチが全く不調で、已む無くTOUCAMでの撮像に重点を置くことにしました。はじめて使うのですが幸いにして、熊森さんに時々お目にかかれまして、いろいろ教えて頂けますが、なかなか難しいものです。今年に入り、一月4日のことですが、2003年、ホイヘンス・クレーターに白斑を見た時と、中央経度が略同じになり、シーイングも割合よいので、TOUCAMに眼視用の橙色フィルターを付け撮像しました(画像添付)。ホイヘンスとエドム

のあたりがやや明るくなっている感じで、もしかするとなにか共通するものがあるのではないかと、他にもないかと、想像して楽しんでおります。因みに眼視では見えていませんでした。勝手なことを考えるのは、素人の特権かもしれませぬ。

一月の下旬からたいへん寒くなりましたので、寒気が去るまで火星はお休みにすることにし、プロミネンスでも見ることにしました。少々不甲斐ないですが、健康維持上仕方ありません。

まだまだ厳しい寒さが続くことと存じます。ご健勝をお祈り申しあげます。 草々

松本 達二郎(Tatsujiro MATSUMOTO 尼崎Hyogo)



●.....Date: Sat, 02 Feb 2008 18:25:50 +0100
Subject: Mars observations on 24th January 2008

Dear CMO/OAA-team! Here is my latest Mars observation on 24th January 2008. best regards

○.....Date: Sun, 10 Feb 2008 12:09:21 +0100
Subject: Mars observation 09th February 2008

Dear CMO/OAA-team! Here is my latest Mars observation from yesterdays evening 09th February 2008. I shot it on a mountaintop site near Vienna (about 3400 ft).

best regards

○.....Date: Mon, 11 Feb 2008 00:41:53 +0100
Subject: Mars observation 10th February 2008

Dear CMO/OAA! A new set of images from today's evening - seeing was not as good as yesterday.

best regards

Robert SCHULZ (ロバート・シュルツ Wien ウィーン 奥)

●.....Date: Sun, 3 Feb 2008 01:31:17 EST
Subject: Re: Fw: mercury

Thanks Bill (SHEEHAN) for your e-mail. I got the attachments but only one went through. I have the one with See's drawing of Mercury perhaps on Aug. 24, 1901. Looking at the Ephemeris of Mercury on that date, I found out that it is impossible. Mercury appeared nearly a full phase 3 1/2 degrees W of the sun and the CM was 173 degrees. It must be the wrong year.

I will check the CM longitudes for Schiaparelli's drawings. In addition, I have another drawing by J. J. See showing craters! I have attached it at below. The time was in June 1901 with the 26-inch equatorial. According to the Ephemeris, it must be June 9th if Mercury was exactly half in the evening sky. What See drew, I don't know. I don't believe he was actually seeing craters, even with the 26-inch. Even today, telescopes with much better optics cannot reach the resolution where you can see multiple craters visually. In reality, Mercury does look like that from the spacecrafts. It is equivalent to Herschel and other observers reported that Uranus may be surrounded by the rings and then it was discovered with the different method. It was the optics defected and I believe it happened the same way with JJ See. More later...

○.....Date: Sat, 23 Feb 2008 03:22:09 EST
Subject: The light and dark of Venus

All - The Venus Express mission releases some interesting observations of the atmosphere. See here:
http://www.esa.int/SPECIALS/Venus_Express/SEMIVTVHJCF_0.html

For those of you who imaged Venus in UV light might want to check them to see if any one of you can make out something similar to what Venus Express mission reported. According to my UV images of 2004 morning apparition, there was a bright South Polar Region and the intensity varied quite often.

○.....Date: Sun, 24 Feb 2008 01:34:56 EST
Subject: Mars February 22, 2008

Hi - I have attached my latest images of Mars Feb. 22, 2008 to be posted. Thanks,

Frank MELILLO (フランク・メリッロ Holtsville NY 美)

●.....Date: Thu, 7 Feb 2008 18:06:57 +0100
Subject: Mars 6-2-2008

This is my image for the CMO/OAA Gallery.
Best regards

Nacho ZURUTUZA (イグナシオ・スルトウザ Asturias西)

●.....Date: Fri, 8 Feb 2008 18:36:42 +0100
Subject: Mars images

Hello, Here are my last images of Mars... very small for my newton now !!

Xavier DUPONT (カザウ・イエ・テ・エボン Saint Roch法)

●.....Date: Tue, 12 Feb 2008 20:40:07 -0000
Subject: RE: Mars 2008 February 08

Hi All, One from slightly later on the 8th, this one is slightly better quality. OM on the CM !

○.....Date: Sat, 16 Feb 2008 13:34:28 -0000
Subject: RE: Mars 2008 February 12

Dear All, One from last night. Conditions not too good, it got worse as the night went on, so this one from 2001ut turned out to be the best. A very bright patch seems to have come into view on the sun facing limb.

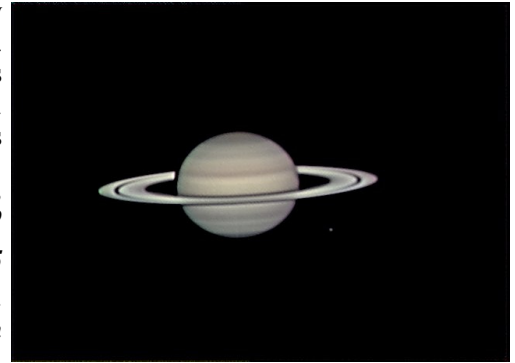
○.....Date: Mon, 18 Feb 2008 11:41:53 -0000
Subject: RE: Mars 2008 February 16th and 17th

Dear All, Two recent images. Both evenings saw rather poor seeing conditions. All the best

○.....Date: Wed, 20 Feb 2008 19:43:35 -0000
Subject: Saturn

Dear all,
Saturn early on 10th Feb.
Dione is also visible.
Best Wishes

○.....
Date: Wed,
20 Feb
2008
19:43:35
-0000
Subject:
Mars 19th
Feb 2008



Dear All, Mars last night. Quite misty conditions gave reasonably steady seeing. All the best,

Simon KIDD (サイモン・キッド Herts 英)

●.....Date: Thu, 14 Feb 2008 22:03:19 +0100
Subject: Re: Mars clouds 8th to 12 Feb 2008

Hi David and guys, nice to see mars in day after day. I capture mars on the same day the 11 feb, 3 minutes later as your Mars. See the clouds above Argyre. By this sunangle, Kasei Vallis and a hint of Echus Chasma is good to see also Shalbatana Vallis. Regards

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

●.....Date: Fri, 15 Feb 2008 20:24:27 -0000
Subject: Re: Fw: Messenger at Mercury

Dear Dr Cruikshank, Several years ago, Richard Baum, then Director of the BAA Terrestrial Planets Section asked me to become Coordinator for Mercury observations, and one of the things I did was to put all the observational material held in the Section archive into some kind of order. I remember one of the surprises was coming across your drawings of the planet made with the 40" refractor at Yerkes at the time you mention, so it is pleasing to learn a little about the background as to how they came about. Richard was very keen to promote amateur interest in all of the terrestrial planets, Mercury included, despite the particular difficulties that came with seeing the innermost planet. Modern advances in CCD imaging, and that technology now available to amateurs, has brought about fresh interest in the planet from our perspective.

I had the all too brief pleasure of a visit to Yerkes in the fall of 1998, while attending a DPS meeting at Madison. Although I didn't get to look through the venerable 40", I did manage an observation of Saturn with a 24" Cassegrain on the other end of the main building! Finally I attach a drawing showing my own humble efforts with Mercury (made an amazing 20 years ago!), from deepest North Yorkshire!

Kind regards from a sunny but very cold Great Britain...
-----original message-----

◆.....Sent: Sunday, February 10, 2008 8:00 PM
Subject: RE: Fw: Messenger at Mercury

Dear Richard, Thank you for sending me this copy of your note to Bill Sheehan concerning the features on Mercury, and I must say that I was very surprised to see that you are aware of the Mercury drawings I sent in nearly half a century ago (!).

For several months each in 1958, 1959, and 1960, I had the privilege of working as an assistant at Yerkes Observatory (during my college years), and the astronomers there generously made the 40-inch refractor available for daytime use. Its nighttime use in those years was limited to astrometric photography and visual measurements of double stars. There were also some nice plates of the Moon taken at that time, in support of

G. P. Kuiper's lunar atlas project. Three BAA stalwarts were there at the time--Alan P. Lenham, Ewen Whitaker, and David (Dai) Arthur. Lenham was formally employed doing astrometry, as I remember, but I spent one or two evenings at the telescope with him while Mars was near opposition--probably the near perihelic opposition of 1958. I remember one of the nights of excellent seeing that he was lamenting his artistic limitations to render on paper what he could see in the eyepiece (probably 550x, which is what we commonly used; he pined for the "skill of Antoniadi". During the daytime, at least for one of those summers, I worked for Dai Arthur calculating coordinate grids for one version of the lunar atlas.

I still remember the thrill of bringing little Mercury into the field of view, using the setting circles, of course, and after some adaptation, seeing a few dusky markings emerge. I think most of my Mercury (and some Venus) observations were made on lunch hour, with the planets high in the sky.

And now we have these excellent views of most of the surface with Messenger, augmenting and extending the early work of Mariner 10. And, there's much more to come!

After the Yerkes experience, I followed Kuiper to his newly created Lunar and Planetary Lab in Tucson, arriving there in 1961. I had my 12-inch f/8 reflector with me, and made a number of drawings of Mercury that made me think that changes truly could be seen on the surface. I published a brief note about this in *Nature* (vol. 209, 701, 1966), suggesting possible luminescence effects in the surface materials. Although I coauthored a couple more papers about infrared spectroscopy of Mercury later on, I haven't worked on this little planet for quite a number of years. It continues to fascinate, though, doesn't it?

Kind regards,

David GRAHAM (デーヴィッド・グレアム NYs 英)
Dale CRUIKSHANK

●.....Date: Fri, 15 Feb 2008 06:05:37 -0800 (PST)
Subject: Mars Image - 2008-February-15

Gentlemen, I am submitting a set of images from Feb 15. I am sorry to hear that Mr. Murakami is in the hospital. I wish him the best and a speedy recovery. Regards,
Pete GORCZYNSKI (ピーター・ゴルチンスキ CT 美)

●.....Date: Fri, 15 Feb 2008 08:12:51 +0100
Subject: Mars 2008-02-11

Dear Sirs, my latest image under fair seeing conditions. Regards

○.....Date: Fri, 15 Feb 2008 12:43:12 +0100
Subject: AW: Mars 2008-02-11

Dear Masatsugu, thank you very much for your friendly

シー・エム・オー・フクイ

中島 孝 Nj

★前号報告以降、伊舎堂 弘様(403)よりカンパを頂戴しました。また編集部の村上・南・西田の三氏(404)より『天文観測年表』火星項の原稿料をカンパして頂きました。有難うございました。不一

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

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