

## MARS

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## OBSERVATIONS

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## CMO 2009/2010 Mars Report #13

OAA Mars Section

## CMO Mars Observations during the First Half of February 2010

from 1 February ( $\lambda=046^\circ\text{Ls}$ ) to 15 February 2010 ( $\lambda=052^\circ\text{Ls}$ )

2010年二月上旬(1 Feb~15 Feb 2010)の火星面観測

In this report the CMO observations made during the period from 1 February to 15 February are dealt with in which the season proceeded from  $\lambda=046^\circ\text{Ls}$  to  $\lambda=052^\circ\text{Ls}$ . The apparent diameter  $\delta$  decreased from 14.1" to 13.3", and the central tilt  $\phi$  moved from  $15^\circ\text{N}$  to  $13^\circ\text{N}$  so that the npc looks to thaw more rapidly than expected. The phase angle  $\iota$  increased from  $3^\circ$  to  $14^\circ$ . The apparent declination  $D$  also increased from  $22^\circ24'\text{N}$  to  $23^\circ34'\text{N}$ . The observation rates look decreased, perhaps because of the weather conditions. In Japan, the sky remained dismal on both sides.

♂..... 今回の報告期間は二月上旬1Febから15Feb迄であって、この間季節は $\lambda=046^\circ\text{Ls}$ から $\lambda=052^\circ\text{Ls}$ まで推移した。視直径 $\delta$ は14.1"から13.3"に下がってきている。中央緯度 $\phi$ は $15^\circ\text{N}$ から $13^\circ\text{N}$ へ動いた：北極冠は実際より早く縮小するように見える。位相角 $\iota$ も $3^\circ$ から $14^\circ$ と増えた。視赤緯 $D$ は $22^\circ24'\text{N}$ から $23^\circ34'\text{N}$ とますます高くなっている。観測報告は以下の通りであるが数が減ってきているように思う。日本は裏表両方とも天候に恵まれなかった。

♂..... We received the observations this time as follows (note that we count as one image if several are taken within 20 minutes). 今回拝受の報告は次の通りである(ccd枚数は20分以内のものは1と数える)：

**AKUTSU, Tomio 阿久津 富夫 (Ak)** セブ・フィリッピン Cebu, the Philippines

14 Sets of RGB + 13 IR Images (2, 3, 5, 6, 8, 12, 14, 15 February 2010)

36cm SCT @f/36, 55 with a DMK21AU04

**AZORÍN ALBERO, Luis Miguel**

ルイス=ミゲル・アソリン=アルベロ (LAz) スペインElda, Alicante, España

1 Set of RGB + 1 colour Images (2 February 2010)

15cm Maksutov-Cassegrain @f/24, 36 with a DMK21AU04

**BATES, Donald R ドン・ベーツ (DBt)** テキサス Cypress, TX, USA

2 Colour Images (6, 7 February 2010) 25cm speculum @f/30 with a ToUcam Pro II

**BERDEJO, Alberto**

アルベルト・ベルデホ (ABd) スペインLucena de Jalón, Zaragoza, España

2 Colour Images (1, 6<sup>s</sup> February 2010)

15cm Maksutov-Cassegrain, 18cm Dall-Kirkham<sup>s</sup> with a ToUcam Pro

**BOLZONI, Simone スィモーネ・ボルツォーニ (SBI)** イタリア Busto Arsizio, Italia

3 Colour Images (1,~3 February 2010) 20cm SCT with a ToUcam Pro II

**BOSCH, Albert アルベルト・ボッシュ (ABs)** スペイン Parets del Valles, Barcelona, España

- 7 *Colour Images* (1,~3, 5, 10 February 2010) 23cm SCT @f/20, 30, 40 with a DMK21AU04  
**CASQUINHA, Paulo** パウロ・カスキニャ (*PCq*) ポルトガル República Portuguesa  
 5 Sets of *RGB Images* (1, 2, 6, 9 February 2010) 36cm SCT with a SKYnyx 2-0M
- DIERICK, Dominique** ドミニク・ディーリック (*DDr*) ベルギー Ghent, Belgium  
 1 *Colour Image* (12 February 2010) 23cm SCT @f/50 with a DMK21AF
- FERNÁNDEZ GÓMEZ, Francisco José**  
 フランシスコ=ホセ=フェルナンデス=ゴメス(*FFn*) スペイン Ourense, España  
 1 *Colour Image* (1 February 2010) 20cm SCT with a Meade LPI
- FLANAGAN, William D** ビル・フラナガン(*WFl*) テキサス Houston, TX, USA  
 1 Set of *LRGB Images* (7 February 2010) 36cm SCT @f/36 with a Lu-075M
- FONTANILLAS LOPEZ, Nicolás**  
 ニコラス=フォンタニヤス=ロペス (*Nft*) セビーヤ・スペイン Sevilla, España  
 1 *B&W Image* (1 February 2010) 21cm Dall-Kirkham @f/46 with a SPC900
- GERSTHEIMER, Ralf** ラルフ=ゲルシュトハイマー(*RGh*) ドイツ Habichitswald, Deutschland  
 1 Set of *RGB + 1 IR Images* (4 February 2010) 32cm speculum @f/27 with a DMK21AF04
- GHOMIZADEH, Sadegh** サデグ=ゴミザデ (*SGh*) テヘラン Tehran, Iran  
 8 *Colour + 4 R + 7 B Images* (5,~8, 10, 14 February 2010)  
 28cm SCT @f/37 with a DMK21AU04.AS
- GORCZYNSKI, Peter** ピーター=ゴルチンスキー (*PGc*) コネチカット Oxford, CT, USA  
 2 Sets of *LRGB + 2 IR Images* (2, 4 February 2010) 36cm SCT @f/34 with a DMK21AF04
- HERNANDEZ, Carlos E** カーロス=ヘルナンデス (*CHr*) フロリダ Miami, FL, USA  
 1 Set of *Colour Drawings* (7 February 2010) 300, 390×23cm Maksutov-Cassegrain
- HIGA, Yasunobu** 比嘉 保信 (*Hg*) 那覇 Naha, Okinawa, Japan  
 2 *Colour images* (8 February 2010) 25cm speculum with a Sony VX2000
- HOLT, Dale** デール=ホルト (*DHl*) 英国 Chipping, Hertfordshire, UK  
 1 *Colour Drawing* (10 February 2010) 350×15cm Refractor
- KOHZAKI, Ichiro** 神崎 一郎 (*Kz*) 東久留米 Higashi-Kurumé, Tokyo, Japan  
 10 *Drawings* (4, 6,~8 February 2010) 240, 300, 340×20cm speculum
- KUMAMORI, Teruaki** 熊森 照明 (*Km*) 堺 Sakai, Osaka, Japan  
 4 Sets of *Colour Images* (3, 5, 6, 13 February 2010)  
 20cm Dall-Kirkham @f/70 with a DMK21AF04/DFK21AF04
- LARREA, Javier** ハビエル=ラッレア (*JLa*) スペイン Madrid, España  
 1 *Colour Image* (1 February 2010) 15cm speculum with a SPC900
- LAWRENCE, Pete** ピート=ローレンス (*PLw*) 英国 Selsey, WS, UK  
 2 Sets of *RGB + 1 Colour + 1 IR Images* (1, 9 February 2010)  
 36cm SCT @f/50, 67 with a SKYnyx2-0M
- LEWIS, Martin R** マーチン=ルウィス (*MLw*) 英国 St. Albans, Hertfordshire, UK  
 3 *Colour Images* (5, 9, 10 February 2010) 22cm speculum @f/46 with a DMK21AF04.AS
- MAKSYMOWICZ, Stanislas**  
 スタニスラス=マクシモヴィッチ (*SMk*) フランス Ecquevilly, France  
 3 Sets of *Drawings* (1, 5<sup>†</sup>, 12<sup>†</sup> February 2010) 320×15cm Refractor, 250, 280, 320×15cm Cassegrain<sup>†</sup>
- MELILLO, Frank J** フランク=メリッロ (*FMI*) ニューヨーク Holtsville, NY, USA  
 5 *Colour Images* (1, 5, 8, 13 February 2010) 25cm SCT with a ToUcam pro II
- MINAMI, Masatsugu** 南 政次 (*Mn*) 福井 Fukui\*, Fukui, Japan  
 20 *Drawings* (7, 13 February 2010) 340, 400×20cm Goto F/12 ED refractor\*

**MORALES RIVERA, Efrain**

**エフライン・モラレス=リベラ (EMr)** プエルトリコ Aguadilla, Puerto Rico

6 Sets of RGB Images (2, 3, 8, 9, 13, 15 February 2010) 31cm SCT with a DMK21AF04

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

7 Sets of RGB + 7 LRGB Colour + 7 L Images (2, 3, 7, 13 February 2010)  
25cm speculum @f/75 with a Lu-075M

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

3 Drawings (5, 7 February 2010) 320×20cm F/8 speculum

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

10 Drawings (7, 13 February 2010) 340, 400×20cm Goto F/12 ED refractor\*

**PARKER, Donald C ドン・パーカー (DPk)** フロリダ Miami, FL, USA

3 Sets of RGB Images (3, 7, 12<sup>†</sup> February 2010)  
41cm F/6 speculum @f/47, 25cm Dall-Kirkham<sup>†</sup> @f/53 with a SKYnyx 2-0M

**PEACH, Damian A デミアン・ピーチ (DPc)** 英国 High Wycombe, Bucks, UK

6 Sets of Colour Images (1, 5, 10 February 2010)  
36cm SCT @f/40 with a SKYnyx 2-0M

**PHILLIPS, James ジム・フィリップス (JPh)** サウスカロライナ Charleston, SC, USA

1 Colour Image (4 February 2010) 20cm Refractor with a SKYnyx cam

**POUPEAU, Jean-Jacques ジャン=ジャック・プーポー (JPp)** フランス Essonne, France

1 Set of RGB + 1 LRGB Colour + 1 IR Images (9 February 2010)  
35cm Cassegrain @f/29 with a SKYnyx 2-0

**ROSOLINA, Michael マイケル・ロゾリーナ (MRs)** ウェストヴァージニア Friars, WV, USA

1 Colour Drawing (2 February 2010) 250, 340, 500×20cm SCT

**SÁNCHEZ, Jesús R ヘスス・サンチェス (JSc)** スペイン Córdoba, España

3 Colour Images (2, 7 February 2010) 26cm Maksutov-Cassegrain with a DMK21AF04.AS

**SHARP, Ian イアン・シャープ (ISp)** 英国 Ham, West Sussex, UK

2 Sets of RGB Image (9 February 2010) 28cm SCT @ f/57 with a SKYnyx 2-0M

**SMET, Kris クリス・スмет (KSm)** ベルギー Bornem, Belgium

1 Colour Drawing (6 February 2010) 280×20cm Dobsonian

**SOLDEVILLA GONZALEZ, José Antonio**

**ホセ=アントニオ・ソルデビーヤ=ゴンサレス (JSd)** スペイン Canyelles, nr Barcelona, España

2 LRGB Images (1, 12 February 2010) 25cm speculum with a Wattec 120+ camera

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

4 Colour Images (5, 9 February 2010) 36cm SCT @f/44 with a SKYnyx 2-0

(\*Fukui City Observatory 福井市自然史博物館屋上天文台)

♂..... A) **Polar Dust:** In the preceding fortnight period we had four polar dusts: Without a break we also had a new polar dust at the beginning of this period to the north of M Acidalium: On 1 Feb ( $\lambda=046^\circ\text{Ls}$ ) at  $\omega=338^\circ\text{W}$  (21:40 GMT), LAWRENCE (*PLw*) detected a brownish line along the residual cap inside the npc and it went up southward to M Acidalium. This must have been a case where the dust occurs near the perimeter of the residual cap. On his succeeding image at  $\omega=343^\circ\text{W}$  and PEACH (*DPc*)'s images at  $\omega=339^\circ\text{W}$ ,  $344^\circ\text{W}$ , the dust looks duller because of the seeing conditions while there are seen several dust streaks inside M Acidalium. SOLDEVILLA GONZALEZ (*JSd*)'s image also shows a streak inside the npc at  $\omega=342^\circ\text{W}$  and on FERNÁNDEZ GOMEZ (*FFn*)'s image at  $\omega=348^\circ\text{W}$  (22:18 GMT), the

eastern half of the npc is off-white and its outside is also yellowish. On BERDEJO (*ABd*)'s image at  $\omega=349^\circ\text{W}$ , the dusty part came into more inside. Time was 22:25 GMT and was not so passed since *PLw*'s time. The images of CASQUINHA (*PCq*) at  $\omega=355^\circ\text{W}$  (22:48 GMT) more clearly show the dusty part, and prove that the root of this dust is deeper. BOSCH (*ABs*)'s image at  $\omega=002^\circ\text{W}$  shows it faintly. On LARREA (*JLa*)'s image at  $\omega=009^\circ\text{W}$  (23:46 GMT) the dusty part is more explicit vertically and looks to pop out southward. One hour and a half later (more than 4 hours later than *PLw*'s time) on 2 Feb ( $\lambda=046^\circ\text{Ls}$ ) SÁNCHEZ (*JSc*) clearly showed the vertical dust which became broad and had moved westward at  $\omega=027^\circ\text{W}$  (01:00 GMT),  $032^\circ\text{W}$ . The polar dust stays whole day near the perimeter of the critical area: It seems to develop in the day time contrary to the usual central dust. Apparently its part went up to the inside of M Acidalium. *PCq*'s images at  $\omega=042^\circ\text{W}$  are much clearer and show well the broadness and depth. Note that the triangle part of M Acidalium is invaded by the dry dust. MORALES (*EMr*) caught it at  $\omega=060^\circ\text{W}$  near the evening limb; still clearly seen. On GORCZYNSKI (*PGc*)'s images at  $\omega=073^\circ\text{W}$  (04:07 GMT) still a bit show the dust. On the evening of the day, though already the planet rotated once, AZORÍN (*LAz*) shows a remnant at  $\omega=330^\circ\text{W}$  (21:44 GMT). Compared with the day before, it must have moved westwards. *ABs*'s image at 22:31 GMT ( $\omega=342^\circ\text{W}$ ) also shows a slight trace. It is apparent it had flowed outside the npc. On 3 Feb ( $\lambda=047^\circ\text{Ls}$ ), *EMr*'s images at  $\omega=047^\circ\text{W}$  and PARKER (*DPk*)'s at  $\omega=062^\circ\text{W}$  (04:00 GMT) do not show the very trace but suggest a fainter dust at the eastern side. The triangular part of M Acidalium receives an effect of a spread of the dust. On the evening of the day, *ABs* took at  $\omega=338^\circ\text{W}$  (22:50 GMT) but no trace seems to be found. However, on 4 Feb ( $\lambda=047^\circ\text{Ls}$ ) PHILLIPS (*JPh*) took at  $\omega=034^\circ\text{W}$  (02:40 GMT), and *PGc* at  $\omega=060^\circ\text{W}$  where a faint dust may reach M Acidalium in addition to the streak dust float around the perimeter of the residual cap. MELILLO (*FMI*)'s images on 5 Feb ( $\lambda=048^\circ\text{Ls}$ ) at  $\omega=052^\circ\text{W}$ ,  $065^\circ\text{W}$  suggest that the dark triangular part of M Acidalium is recovered. No other conspicuous image of any dust was visible: Just on the evening of 5 Feb, the images of *ABs* at  $\omega=326^\circ\text{W}$ , and of LEWIS (*MLw*) at  $\omega=333^\circ\text{W}$  may show a dent at the limb of the npc. However we remark that even on the morning of 7 Feb ( $\lambda=048^\circ\text{Ls}$ ) *JSc*'s images suggest a further weak dust at  $\omega=332^\circ\text{W}$  ( $335^\circ\text{W}$ ) which is similar to the one seen on *PLw*'s on 1 Feb. See also *DPk*'s images on the day at  $\omega=016^\circ\text{W}$  where a fine dust streak along the residual cap is seen to the north of M Acidalium. Incidentally on 7 Feb ( $\lambda=048^\circ\text{Ls}$ ), BATES (*DBt*)'s image at  $\omega=044^\circ\text{W}$  shows something similar inside the npc, and FLANAGAN (*WFl*)'s images at  $\omega=049^\circ\text{W}$  ( $051^\circ\text{W}$ ) show it more detailed; a wavy distribution of dust-like matter suggesting still a battle between the M Acidalium and the npc: These images show that the triangular dark part to the NW of M Acidalium is made fainter again because of the invasion of the dust. On 8 Feb ( $\lambda=049^\circ\text{Ls}$ ), *EMr* issued a set of images at  $\omega=347^\circ\text{W}$  where the npc itself looks normal if we disregard the outside of the npc. See also *FMI*'s images on the day at  $\omega=027^\circ\text{W}$ . *DPk*'s images on 12 Feb ( $\lambda=051^\circ\text{Ls}$ ) at  $\omega=335^\circ\text{W}$  also do not suggest any strong irregularity inside the npc, but the surroundings of the npc are dark brownish. **B) Evening Mists: a) Libya Cloud:** In connection with the evening Syrtis Mj we shall pick out a thick mist at Libya. On 1 Feb ( $\lambda=046^\circ\text{Ls}$ ), *DPc* shows at  $\omega=339^\circ\text{W}$ ,  $344^\circ\text{W}$  that Syrtis Mj near the limb is bluish because of the strong refraction of the shorter wavelength light. On the day, *FFn* shows a bit at  $\omega=348^\circ\text{W}$ , *ABd* at  $\omega=349^\circ\text{W}$ , *PCq* at  $\omega=355^\circ\text{W}$  (the tip). And on *ABs*'s image at  $\omega=002^\circ\text{W}$  and *JLr*'s at  $\omega=009^\circ\text{W}$ , Syrtis Mj is being concealed. This is similar on 2 Feb ( $\lambda=046^\circ\text{Ls}$ ) on *LAz*'s at  $\omega=333^\circ\text{W}$  and *ABs*'s at  $\omega=342^\circ\text{W}$ . See also *ABs*'s on 3 Feb ( $\lambda=047^\circ\text{Ls}$ ) at  $\omega=338^\circ\text{W}$ , and on 5 Feb ( $\lambda=048^\circ\text{Ls}$ ) at  $\omega=326^\circ\text{W}$ . *MLw*'s description on the day at  $\omega=333^\circ\text{W}$  is weak about the white mist. *EMr*'s images on 8 Feb ( $\lambda=049^\circ\text{Ls}$ ) at  $\omega=347^\circ\text{W}$  show that the Libya mist is going to cover Syrtis Mj. *DPk*'s on 12 Feb ( $\lambda=051^\circ\text{Ls}$ ) at  $\omega=335^\circ\text{W}$  is also similar. *EMr*'s ones on 13 Feb ( $\lambda=051^\circ\text{Ls}$ ) at  $\omega=337^\circ\text{W}$  show the similar angle but look the composi-

tion being poorer. **b) Xanthe Evening Mist:** This evening mist is also thicker. It is apparent on the images on MORITA (*Mo*)'s images on 7 Feb ( $\lambda=048^\circ\text{Ls}$ ) at  $\omega=119^\circ\text{W}$ , on AKUTSU (*Ak*)'s one on 12 Feb ( $\lambda=051^\circ\text{Ls}$ ) at  $\omega=115^\circ\text{W}$ , and on KUMAMORI (*Km*) and *Mo* on 13 Feb ( $\lambda=051^\circ\text{Ls}$ ) at  $\omega=097^\circ\text{W}$  and at  $\omega=106^\circ\text{W}$  respectively. On 13 Feb ( $\lambda=051^\circ\text{Ls}$ ), NAKAJIMA (*Nj*) and one of us (*Mn*) visually observed that the Xanthe evening mist was as bright as the npc (brighter than the description by the ccd). We observed at  $\omega=097^\circ\text{W}(\text{Nj})$ ,  $101^\circ\text{W}(\text{Mn})$ ,  $106^\circ\text{W}(\text{Nj})$ ,  $111^\circ\text{W}(\text{Mn})$ ,  $116^\circ\text{W}(\text{Nj})$ ,  $126^\circ\text{W}(\text{Mn})$ , ... Until it was cloudy at  $\omega=184^\circ\text{W}$  its continuation was bright. **c) Olympus Mons:** Incidentally we state that we visually checked Olympus Mons on 13 Feb ( $\lambda=051^\circ\text{Ls}$ ) at  $\omega=165^\circ\text{W}$  etc, but it is yet far from the cotton-ball like, though the evening limb is bright. Olympus Mons was also checked by KOHZAKI (*Kz*) visually on 8 Feb ( $\lambda=049^\circ\text{Ls}$ ) at  $\omega=155^\circ\text{W}$ ,  $165^\circ\text{W}$ . Another of us (*Mk*) visually watched Olympus Mons near the CM on 7 Feb ( $\lambda=049^\circ\text{Ls}$ ) at  $\omega=130^\circ\text{W}$ ,  $140^\circ\text{W}$ , but could not identify the position. Olympus Mons was ccd imaged already by *Km* on 3 Feb ( $\lambda=047^\circ\text{Ls}$ ) at  $\omega=192^\circ\text{W}$  as isolated and the preceding evening mist was bright. At  $\omega=201^\circ\text{W}$  it merged into the evening mist as shown by *Ak*. *Ak* isolated it on 5 Feb ( $\lambda=048^\circ\text{Ls}$ ) at  $\omega=174^\circ\text{W}$ . *Km* also shows it (never bright) near the evening mist on the day at  $\omega=183^\circ\text{W}$ . On 8 Feb ( $\lambda=049^\circ\text{Ls}$ ) at  $\omega=130^\circ\text{W}$  *Ak* issued a set images where Olympus Mons vaguely visible near the CM, while the evening mist is strong (Xanthe to Tharsis). On the same day (8 Feb ( $\lambda=049^\circ\text{Ls}$ )) HIGA (*Hg*) succeedingly took the images at  $\omega=158^\circ\text{W}$ ,  $162^\circ\text{W}$ ,  $165^\circ\text{W}$  and showed how Olympus Mons moved to the west side. **C) Morning Mists:** Libya morning mist is also interesting connected with Syrtis Mj, as stressed in the preceding issue. *Ak* took on 2 Feb ( $\lambda=046^\circ\text{Ls}$ ) two sets of images at  $\omega=220^\circ\text{W}$ ,  $226^\circ\text{W}$ , where the former shows that Syrtis Mj is bluish. The morning mist which before Syrtis Mj appears is seen on the images of *Ak* and *Km* on 6 Feb ( $\lambda=048^\circ\text{Ls}$ ) at  $\omega=153^\circ\text{W}$  and at  $\omega=167^\circ\text{W}$  respectively. On 4 Feb ( $\lambda=047^\circ\text{Ls}$ ) at  $\omega=205^\circ\text{W}$ , *Kz* looks to identify the mist before Syrtis Mj appeared. DODi (*DDr*)'s image on 12 Feb ( $\lambda=051^\circ\text{Ls}$ ) at  $\omega=227^\circ\text{W}$  shows the morning Syrtis Mj, but does not show the morning bluish one: This must be because of a wrong composition of colours. Another important morning mist which will be connected with Chryse is taken by *DPk* on 7 Feb ( $\lambda=048^\circ\text{Ls}$ ) at  $\omega=016^\circ\text{W}$  (already), and on 12 Feb ( $\lambda=051^\circ\text{Ls}$ ) at  $\omega=335^\circ\text{W}$  (not yet). Otherwise *EMr* shows a usual morning mist on 9 Feb ( $\lambda=050^\circ\text{Ls}$ ) at  $\omega=014^\circ\text{W}$ , and *FMI* also does similarly on 13 Feb ( $\lambda=051^\circ\text{Ls}$ ) at  $\omega=002^\circ\text{W}$ . **D) Hellas:** Hellas is expected to become whitish bright at around  $\lambda=100^\circ\text{Ls}$ , but it is quite dull at present. On the image of BOLZONI (*SBl*) on 1 Feb ( $\lambda=046^\circ\text{Ls}$ ) at  $\omega=315^\circ\text{W}$  Hellas does not show any trace. It is only just seen on her image on 3 Feb ( $\lambda=047^\circ\text{Ls}$ ) at  $\omega=301^\circ\text{W}$ . It's also faintly seen on GERSTHEIMER (*RGh*)'s IR image on 4 Feb ( $\lambda=047^\circ\text{Ls}$ ) at  $\omega=305^\circ\text{W}$ . Hellas can slightly be identified on the images by TYLER (*DTy*) and *DPc* on 5 Feb ( $\lambda=048^\circ\text{Ls}$ ) at  $\omega=306^\circ\text{W}$  and  $\omega=303^\circ\text{W}(306^\circ\text{W})$  respectively. *DPc*'s images on 10 Feb ( $\lambda=050^\circ\text{Ls}$ ) are interesting at  $\omega=254^\circ\text{W}$ ,  $260^\circ\text{W}$  and  $265^\circ\text{W}$ : Hellas is invisible in the mere morning and gradually appears as it comes more inside. That the morning Hellas is not seen is also proved on the image of GHOMIZADEH (*SGh*) on 6 Feb ( $\lambda=048^\circ\text{Ls}$ ) at  $\omega=257^\circ\text{W}$ . However *PCq*'s images at  $\omega=312^\circ\text{W}$ ,  $321^\circ\text{W}$  show the contour of Hellas clearly while Hellas is never light. See also *ABd*'s image at  $\omega=312^\circ\text{W}$ . Hellas on *PCq*'s images on 9 Feb ( $\lambda=050^\circ\text{Ls}$ ) at  $\omega=275^\circ\text{W}$  also is also dull though its contour is again apparent. SHARP (*ISp*)'s morning Hellas on 9 Feb ( $\lambda=050^\circ\text{Ls}$ ) at  $\omega=266^\circ\text{W}$  is also shadowy. See also *MLw*'s one on 10 Feb at  $\omega=253^\circ\text{W}$ . *ABs*'s image at  $\omega=271^\circ\text{W}$  barely shows the shape. See also *EMr*'s Hellas taken on 15 Feb ( $\lambda=052^\circ\text{Ls}$ ) at  $\omega=305^\circ\text{W}$ . **E) Yaonis R:** When the angular diameter was small, Yaonis R was invisible and Yaonis Fr and M Serpentis made a broad dark area preceding S Sabæus. However now Yaonis R became slightly visible. It is seen on the images on 1 Feb ( $\lambda=046^\circ\text{Ls}$ ) by *PLw* at  $\omega=338^\circ\text{W}$ , and by *DPc* at  $\omega=339^\circ\text{W}$  though the area is declined westwards. *PCq*'s images on 6 Feb ( $\lambda=048^\circ\text{Ls}$ ) at  $\omega=312^\circ\text{W}$ ,  $321^\circ\text{W}$  provide us a good view of the area. See also *JSc*'s image on 7 Feb ( $\lambda=$

048°Ls) at  $\omega=332^\circ\text{W}$ , *PLw*'s on 9 Feb ( $\lambda=050^\circ\text{Ls}$ ) at  $\omega=299^\circ\text{W}$ , *POUPEAU (Jpp)*'s on the day at  $\omega=301^\circ\text{W}$ , *EMr*'s on 13 Feb ( $\lambda=051^\circ\text{Ls}$ ) at  $\omega=337^\circ\text{W}$  etc. The last one shows the area is wine-coloured. **F) Trans-Colouring of Utopia:** The area of Utopia which is adjacent to the npc is discolouring just like made of the red-brown clay: On 2 Feb ( $\lambda=046^\circ\text{Ls}$ ) *Ak* and *Mo* suggest at  $\omega=226^\circ\text{W}$  and at  $\omega=240^\circ\text{W}$  respectively. *DPc*'s image on 5 Feb ( $\lambda=048^\circ\text{Ls}$ ) at  $\omega=303^\circ\text{W}$  proves that the both sides of Utopia are so. *PCq*'s images on 6 Feb ( $\lambda=048^\circ\text{Ls}$ ) at  $\omega=312^\circ\text{W}$  show the western side is quite trans-coloured and his on 9 Feb ( $\lambda=050^\circ\text{Ls}$ ) at  $\omega=275^\circ\text{W}$  do the eastern side is so. On the same day *PLw* also showed it at  $\omega=299^\circ\text{W}$ . Otherwise see *DPc*'s on 10 Feb ( $\lambda=050^\circ\text{Ls}$ ) at  $\omega=254^\circ\text{W}$  and *DDR*'s one on 12 Feb ( $\lambda=051^\circ\text{Ls}$ ) at  $\omega=227^\circ\text{W}$ . *EMr*'s on 15 Feb ( $\lambda=052^\circ\text{Ls}$ ) at  $\omega=305^\circ\text{W}$  still suggest the same colour at the western side. **G) Argyre:** Argyre looks to be covered by a cloud on the images of *EMr* and *DPk* on 3 Feb ( $\lambda=047^\circ\text{Ls}$ ) at  $\omega=047^\circ\text{W}$  and at  $\omega=062^\circ\text{W}$  respectively. See also *JPh*'s and *PGc*'s images on 4 Feb ( $\lambda=047^\circ\text{Ls}$ ) at  $\omega=034^\circ\text{W}$  and  $\omega=060^\circ\text{W}$  respectively. *DPk*'s images on 7 Feb ( $\lambda=048^\circ\text{Ls}$ ) at  $\omega=016^\circ\text{W}$  also show the Argyre cloud. On the other hand, the images of *WFl* on 7 Feb ( $\lambda=048^\circ\text{Ls}$ ) at  $\omega=049^\circ\text{W}(051^\circ\text{W})$  prove further that the area shows an interesting and complex aspect. The images of *EMr* on 9 Feb ( $\lambda=050^\circ\text{Ls}$ ) at  $\omega=014^\circ\text{W}$  depict the Argyre cloud. **H) Opposition Effect:** We (*Mn* and *Mk*) are regarding *WFl*'s images on 7 Feb ( $\lambda=048^\circ\text{Ls}$ ) at  $\omega=049^\circ\text{W}(051^\circ\text{W})$  as noteworthy: We are of the opinion that, while already  $\iota=7^\circ$ , the whole disk is affected by the opposition effect (a full-moon effect). *WFl* did process quite normally and the markings are shown quite plainly. M Acidalium and the area of M Erythræum seem to be described in a true gradation on the full-moon stage. On the other hand it is interesting that the boundary of Thaumasia and Agathodæmon are darkly shown. The boundary of Thaumasia is dark even if it goes to the evening side (see *Ak*'s R images on 14 Feb ( $\lambda=052^\circ\text{Ls}$ ) at  $\omega=091^\circ\text{W}$  and on 15 Feb ( $\lambda=052^\circ\text{Ls}$ ) at  $\omega=095^\circ\text{W}$ ,  $104^\circ\text{W}$ ).

♂..... **A)極型黄塵:**前回に引き続き、今回も極型黄塵がマレ・アキダリウムの北に見られた。1Feb( $\lambda=046^\circ\text{Ls}$ ) $\omega=338^\circ\text{W}$ (21:40GMT)においてローレンス(*PLw*)が北極雲内の永久極冠の縁に沿って茶色の筋を認め、それがマレ・アキダリウムの方に向けて出ているのを捉えている。永久極冠の縁で極型黄塵の起きる例であろう。彼の続く $\omega=343^\circ\text{W}$ やピーチ(*DPc*)氏の $\omega=339^\circ\text{W}$ 、 $344^\circ\text{W}$ ではシーイングの所為で曖昧になっているが、マレ・アキダリウム内に黄塵の筋は認められる。ソルデビーヤ=ゴンサレス(*JSd*)氏の $\omega=342^\circ\text{W}$ では内部の筋が明確、フェルナンデス=ゴメス(*FFn*)氏の $\omega=348^\circ\text{W}$ (22:18GMT)では北極冠の東半分は黄色く外側も然りである。ベルデホ(*ABd*)氏の $\omega=349^\circ\text{W}$ では濃い縦部分がだいぶ真ん中に入ってきているように見える。22:25GMTで*PLw*氏の場合からそれほど時間は経っていない。 $\omega=355^\circ\text{W}$ (22:48GMT)のカスキニヤ(*CPq*)氏の像はもっとハッキリさせていて、この黄塵の根が深いことを示している。ボッシュ(*ABs*)氏の $\omega=002^\circ\text{W}$ の像もそれを淡く描いている。ラッレア(*JLa*)氏の $\omega=009^\circ\text{W}$ (23:46GMT)では縦スジの黄塵らしく見えてきている。一時間半後(*PLw*氏からは四時間半後)の2Feb( $\lambda=046^\circ\text{Ls}$ )のサンチェス(*JSc*)氏の $\omega=027^\circ\text{W}$ 、 $032^\circ\text{W}$ では可成り西に来たが、北極冠内では太く顕著である。極型黄塵は一日中北極冠内に居るから通常の黄雲とは違って発達するようである。外にも出ている。*PCq*氏は $\omega=042^\circ\text{W}$ で捉えているが、根の深いことを示しており、マレ・アキダリウム西北部の三角形部も黄雲色にしている。モラレス(*EMr*)氏は $\omega=060^\circ\text{W}$ で撮ったが、かなり西端に近いものの明確である。ゴルチンスキイ(*PGc*)氏の $\omega=073^\circ\text{W}$ (04:07GMT)でも僅かに見える。夕方、火星は一回転しているが、アソリン(*LAz*)氏の $\omega=330^\circ\text{W}$ (21:44GMT)でも痕跡が残っている。前日に比べ一センチ西側に移動したかもしれない。22:31GMTの*ABs*氏の $\omega=342^\circ\text{W}$ でも黄塵残滓の面影がある。外にも出ている。3Feb( $\lambda=047^\circ\text{Ls}$ )には*EMr*氏の $\omega=047^\circ\text{W}$ やドン・パーカー(*DPk*)氏の $\omega=062^\circ\text{W}$ (04:00GMT)では既にこれは隠れ(前日なら見えている可能性)、新しく東に淡い黄塵を残しているようである。マレ・アキダリウムの西北部の三角形部の上にも黄塵の影響が出ている。夕方になって(火星は一周り後)、*ABs*氏が $\omega=338^\circ\text{W}$ (22:50GMT)で撮っているが、もう痕跡は見られないようである。但し、4Feb( $\lambda=047^\circ\text{Ls}$ )には

フィリップス (JPh)氏が $\omega=034^{\circ}\text{W}$ (02:40GMT)、PGc氏が $\omega=060^{\circ}\text{W}$ に撮っているが、永久極冠の縁が見られるだけでなく弱くマレ・アキダリウムに達しているかも知れない。永久極冠の縁には黄塵が溜まっているようである。5Feb( $\lambda=048^{\circ}\text{Ls}$ )のメリッロ(FMI)氏の $\omega=052^{\circ}\text{W}$ 、 $065^{\circ}\text{W}$ ではマレ・アキダリウム西北部の濃い三角形部が復活したように見える。その後は顕著なものがないが、5Feb夕方のABs氏 $\omega=326^{\circ}\text{W}$ 、ルウイス(MLw)氏の $\omega=333^{\circ}\text{W}$ には外縁に凹みが見られるかも知れない。実は更に7Feb( $\lambda=048^{\circ}\text{Ls}$ )朝のJSc氏の $\omega=332^{\circ}\text{W}$ ( $335^{\circ}\text{W}$ )では未だ痕跡が見られる、というか、1FebのPLw氏の画像に似た様相を示している事に注意する。同日のDPk氏の $\omega=016^{\circ}\text{W}$ も参照。ここではマレ・アキダリウムの北の北極冠内に矢張り筋が強く見られる。序でに直後のこの辺りの北極冠の様子を見ておくと、7Feb( $\lambda=048^{\circ}\text{Ls}$ )のベーツ(DBt)氏の $\omega=044^{\circ}\text{W}$ やフラナガン(WFI)氏の $\omega=049^{\circ}\text{W}$ ( $051^{\circ}\text{W}$ )でも同様である。但しWFI氏の像では太く波打っているように見える。未だ北極冠とマレ・アキダリウムとに<sup>せめ</sup>闘ぎ合いがあるということであろう。少なくともマレ・アキダリウム西北部の濃い三角形部には黄塵が延びて再び部分的な淡化が起こっている事をこれらの像は示している。8Feb( $\lambda=049^{\circ}\text{Ls}$ )のEMr氏の $\omega=347^{\circ}\text{W}$ では外側を度外視すれば北極冠は正常に見える。但し、FMI氏の同日の $\omega=027^{\circ}\text{W}$ の図を見られたい。12Feb( $\lambda=051^{\circ}\text{Ls}$ )のDPk氏の $\omega=335^{\circ}\text{W}$ では北極冠内部には異常が無く、周りが茶色系統になっているだけである。B)夕霧：a)リビュア<sup>から</sup>夕雲：夕端のシュルティス・マイヨルと絡んだリビュア雲を見てもみるが、1Feb( $\lambda=046^{\circ}\text{Ls}$ )のDPc氏の $\omega=339^{\circ}\text{W}$ 、 $344^{\circ}\text{W}$ は短波長を曲げているため、シュルティス・マイヨルが蒼味を帯びている。この日にはFFn氏の $\omega=348^{\circ}\text{W}$ 、ABd氏の $\omega=349^{\circ}\text{W}$ 、PCq氏の $\omega=355^{\circ}\text{W}$ (先っちょ)に見られ、ABs氏の $\omega=002^{\circ}\text{W}$ やJLr氏の $\omega=009^{\circ}\text{W}$ ではシュルティス・マイヨルが隠れて来ている。2Feb( $\lambda=046^{\circ}\text{Ls}$ )のLAz氏の $\omega=333^{\circ}\text{W}$ やABs氏の $\omega=342^{\circ}\text{W}$ でも同様のことが見られる。ABs氏の3Feb( $\lambda=047^{\circ}\text{Ls}$ ) $\omega=338^{\circ}\text{W}$ 、5Feb( $\lambda=048^{\circ}\text{Ls}$ ) $\omega=326^{\circ}\text{W}$ にも注目する。この日のMLw氏の $\omega=333^{\circ}\text{W}$ ももう少しというところである。8Feb( $\lambda=049^{\circ}\text{Ls}$ )のEMr氏の $\omega=347^{\circ}\text{W}$ ではシュルティス・マイヨルに懸かるところである。DPk氏の12Feb( $\lambda=051^{\circ}\text{Ls}$ ) $\omega=335^{\circ}\text{W}$ も同様である。EMr氏の13Feb( $\lambda=051^{\circ}\text{Ls}$ ) $\omega=337^{\circ}\text{W}$ は合成が悪いようだ。b)クサンテ夕霧：クサンテ夕霧もこの時期濃い。7Feb( $\lambda=048^{\circ}\text{Ls}$ )の森田(Mo)氏の $\omega=119^{\circ}\text{W}$ や12Feb( $\lambda=051^{\circ}\text{Ls}$ )の阿久津(Ak)の $\omega=115^{\circ}\text{W}$ 、13Feb( $\lambda=051^{\circ}\text{Ls}$ )の熊森(Km)氏の $\omega=097^{\circ}\text{W}$ 、同じくMo氏の $\omega=106^{\circ}\text{W}$ 等に明らかだが、13Feb( $\lambda=051^{\circ}\text{Ls}$ )に福井での中島(Nj)氏と筆者の一人(Mn)の眼視観測では北極冠に劣らない明るさで見えていた。ccd像とは問題にならない。 $\omega=097^{\circ}\text{W}$ (Nj)、 $101^{\circ}\text{W}$ (Mn)、 $106^{\circ}\text{W}$ (Nj)、 $111^{\circ}\text{W}$ (Mn)、 $116^{\circ}\text{W}$ (Nj)、 $126^{\circ}\text{W}$ (Mn)等であるが、 $\omega=184^{\circ}\text{W}$ で曇られるまで、クサンテを越えて未だ夕霧は見えていた。c)オリュムプス・モンズ：序でに述べるが、13Feb $\omega=165^{\circ}\text{W}$ などでオリュムプス・モンズも見えていたが、綿毛形からは程遠い。この時も夕縁は明るい。オリュムプス・モンズは神崎(Kz)氏も8Feb( $\lambda=049^{\circ}\text{Ls}$ ) $\omega=155^{\circ}\text{W}$ 、 $165^{\circ}\text{W}$ で見ている様子である。但し、我々のもう一人(Mk)が7Feb( $\lambda=049^{\circ}\text{Ls}$ ) $\omega=130^{\circ}\text{W}$ 、 $140^{\circ}\text{W}$ で眼視で狙ったがシーイングの所為もあるが全く不明であった。オリュムプス・モンズは既に3Feb( $\lambda=047^{\circ}\text{Ls}$ )にccdのKm氏が $\omega=192^{\circ}\text{W}$ で孤立して写し出し、その左端は夕霧で明るい。 $\omega=201^{\circ}\text{W}$ ではAk氏が夕霧と合体した様子を撮っているが、5Feb( $\lambda=048^{\circ}\text{Ls}$ ) $\omega=174^{\circ}\text{W}$ では分離した。Km氏の $\omega=183^{\circ}\text{W}$ もぎりぎりのところで撮っている。Ak氏の8Feb( $\lambda=049^{\circ}\text{Ls}$ ) $\omega=130^{\circ}\text{W}$ では夕端には夕霧があるが、オリュムプス・モンズはCM付近にボンヤリ見える様である。尚、比嘉(Hg)氏が同じ8Feb( $\lambda=049^{\circ}\text{Ls}$ )にそのあと $\omega=158^{\circ}\text{W}$ 、 $162^{\circ}\text{W}$ 、 $165^{\circ}\text{W}$ と撮りオリュムプス・モンズが西に寄って行く様を写し出している。C)朝霧：朝霧もシュルティス・マイヨルと関連して興味のある事は前回に述べている。Ak氏の2Feb( $\lambda=046^{\circ}\text{Ls}$ ) $\omega=220^{\circ}\text{W}$ 、 $226^{\circ}\text{W}$ では前者でシュルティス・マイヨルが朝霧で蒼色に見えている。シュルティス・マイヨルが出る前の朝霧は4Feb( $\lambda=047^{\circ}\text{Ls}$ )にKz氏が眼視で $\omega=205^{\circ}\text{W}$ 等で見ているように思う。6Feb( $\lambda=048^{\circ}\text{Ls}$ )のAk氏の $\omega=153^{\circ}\text{W}$ やKm氏の $\omega=167^{\circ}\text{W}$ には既に見えている。ドディ(DDr)氏の12Feb( $\lambda=051^{\circ}\text{Ls}$ ) $\omega=227^{\circ}\text{W}$ のシュルティス・マイヨルは色配合が間違っているからと思われる。クリュセに通じる朝霧は7Feb( $\lambda=048^{\circ}\text{Ls}$ )のDPk氏の $\omega=016^{\circ}\text{W}$ や12Feb( $\lambda=051^{\circ}\text{Ls}$ )の $\omega=335^{\circ}\text{W}$ に出ている(前者はebmに通じるか)他、FMI氏の13Feb( $\lambda=051^{\circ}\text{Ls}$ ) $\omega=002^{\circ}\text{W}$ には通常の朝霧が濃く出ている。9Feb( $\lambda=050^{\circ}\text{Ls}$ )

$\omega=014^\circ\text{W}$ のEMr氏の朝霧も似たものだと思う。**D)ヘッラス**：ヘッラスもオリュムプス・モンスの夕雲と同じ様な具合に白くなって行く筈だが( $\lambda=100^\circ\text{Ls}$ 辺りでは白く輝く)、現在まだその兆候もなく、遅れている感じがする。ボルツォーニ(SBI)さんの1Feb( $\lambda=046^\circ\text{Ls}$ ) $\omega=315^\circ\text{W}$ には痕跡も出ていない。辛うじて彼女の3Feb( $\lambda=047^\circ\text{Ls}$ ) $\omega=301^\circ\text{W}$ でヘッラスの形が判る程度である。ゲルシュトハイマー(RGh)氏の4Feb( $\lambda=047^\circ\text{Ls}$ ) $\omega=305^\circ\text{W}$ のIR像でも同様である。5Feb( $\lambda=048^\circ\text{Ls}$ )のタイラー(DTy)氏の $\omega=306^\circ\text{W}$ 、DPc氏の $\omega=303^\circ\text{W}$ ( $306^\circ\text{W}$ )でもやや明るい形が出ている程度である。DPc氏の10Feb( $\lambda=050^\circ\text{Ls}$ ) $\omega=254^\circ\text{W}$ 、 $260^\circ\text{W}$ 、 $265^\circ\text{W}$ は朝方で全く見えず、少しずつ中に入って形をなす事を如実に示している。朝方のヘッラスが全く見えないことは、ゴミザデ(SGh)氏の6Feb( $\lambda=048^\circ\text{Ls}$ ) $\omega=257^\circ\text{W}$ でも示されているが、同日のPCq氏の $\omega=312^\circ\text{W}$ 、 $321^\circ\text{W}$ では輪郭が出てきているが明るくはない。ABd氏の $\omega=312^\circ\text{W}$ でも然りである。PCq氏の9Feb( $\lambda=050^\circ\text{Ls}$ ) $\omega=275^\circ\text{W}$ の画像も鈍いヘッラスながら輪郭を明確に出している。シャープ(ISp)氏の9Feb( $\lambda=050^\circ\text{Ls}$ ) $\omega=266^\circ\text{W}$ での朝方のヘッラスも暗い。MLw氏の10Feb $\omega=253^\circ\text{W}$ でも然りである。 $\omega=271^\circ\text{W}$ のABd氏の像で区別がつくかといったところ。EMr氏の15Feb( $\lambda=052^\circ\text{Ls}$ ) $\omega=305^\circ\text{W}$ のヘッラスも見られたい。**E)ヤオニス・レギオ**：前々から話題にしていたヤオニス・フレトゥムとマレ・セルペンティスの合体で太くなっている部分に漸くヤオニス・レギオが見えてきている。1Feb( $\lambda=046^\circ\text{Ls}$ )のPLw氏の $\omega=338^\circ\text{W}$ 、DPc氏の $\omega=339^\circ\text{W}$ に端ながら見えているが、PCq氏の6Feb( $\lambda=048^\circ\text{Ls}$ ) $\omega=312^\circ\text{W}$ 、 $321^\circ\text{W}$ は好い描写である。以下JSc氏の7Feb( $\lambda=048^\circ\text{Ls}$ ) $\omega=332^\circ\text{W}$ 、9Feb( $\lambda=050^\circ\text{Ls}$ )のPLw氏の $\omega=299^\circ\text{W}$ 、プーポー(JPp)氏の $\omega=301^\circ\text{W}$ 、EMr氏の13Feb( $\lambda=051^\circ\text{Ls}$ ) $\omega=337^\circ\text{W}$ 等参照。後者ではワインカラーになっている。**F)ウトピアの脱色**：ウトピアの北極冠に直結している辺りに東西が赤茶けた色に脱色して見えている。2Feb( $\lambda=046^\circ\text{Ls}$ )のAk氏の $\omega=226^\circ\text{W}$ 、Mo氏の $\omega=240^\circ\text{W}$ に見られるが、DPc氏の5Feb( $\lambda=048^\circ\text{Ls}$ ) $\omega=303^\circ\text{W}$ には両側に垣間見られる。PCq氏の6Feb( $\lambda=048^\circ\text{Ls}$ ) $\omega=312^\circ\text{W}$ には西側が赤茶けて居るし、同じくPCq氏の9Feb( $\lambda=050^\circ\text{Ls}$ ) $\omega=275^\circ\text{W}$ では東側に顕著である。同日のPLw氏の $\omega=299^\circ\text{W}$ も見られたい。他にDPc氏の10Feb( $\lambda=050^\circ\text{Ls}$ ) $\omega=254^\circ\text{W}$ 、DDr氏の12Feb( $\lambda=051^\circ\text{Ls}$ ) $\omega=227^\circ\text{W}$ 等が代表的であるが他にも証明する像は多い。EMr氏の15Feb( $\lambda=052^\circ\text{Ls}$ ) $\omega=305^\circ\text{W}$ では西側の色は未だ残っている。**G)アルギュレ**：アルギュレは3Feb( $\lambda=047^\circ\text{Ls}$ )のEMr氏の $\omega=047^\circ\text{W}$ 、DPk氏の $\omega=062^\circ\text{W}$ で雲を被っている。4Feb( $\lambda=047^\circ\text{Ls}$ )のフィリップス(JPh)氏の $\omega=034^\circ\text{W}$ 、PGc氏の $\omega=060^\circ\text{W}$ 、7Feb( $\lambda=048^\circ\text{Ls}$ )のDPk氏の $\omega=016^\circ\text{W}$ でも然りである。ただ、同日のWFI氏の $\omega=049^\circ\text{W}$ ( $051^\circ\text{W}$ )ではこの辺りが複雑な興味深い形をしている。9Feb( $\lambda=050^\circ\text{Ls}$ )のEMr氏の $\omega=014^\circ\text{W}$ の画像にもアルギュレ雲が出ている。**H)衝効果**：我々はWFI氏の7Feb( $\lambda=048^\circ\text{Ls}$ ) $\omega=049^\circ\text{W}$ ( $051^\circ\text{W}$ )(見掛けは二セットに見えるが、我々は廿分以内の画像は一つにしか数えない)の画像に注目している。既に $i=7^\circ$ となっているが、像全体に衝効果(満月状態みたいなもの)が顕れているのではないかと思う。処理で像を強調せずにアッサリ淡く仕上げているので目立たないが、実はマレ・アキダリウム他、マレ・エリュトウラエウム辺りが正常に描かれているのではないかと考える。それにも拘わらずタウマシアの縁やアガトダエモンが濃く出ていることも興味がある。タウマシアの縁の濃さは夕方に来てハッキリしている(Ak氏の14Feb( $\lambda=052^\circ\text{Ls}$ ) $\omega=091^\circ\text{W}$ のR像、15Feb( $\lambda=052^\circ\text{Ls}$ ) $\omega=095^\circ\text{W}$ 、 $104^\circ\text{W}$ のR像参照)。

♂.....**追加報告**：We further received as follows:

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

1 Colour Image (24 February 2010) 25cm (F/3.8) speculum with a ToUcam II

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

2 Colour Images (31 January 2010) 36cm SCT @f/48 with a SKYnyx 2-0

T MATSUMOTO (TMt)'s image was made by the use of an old mirror polished in 1930 by Kanamé NAKAMURA (about whom Mn talked at the IWC MO symposium). The mirror is not for the planetary use (just F/3.8), but TMt dared to try to use it for Mars after 80 years on 24 Jan 2010 ( $\lambda=042^\circ\text{Ls}$ ) at  $\omega=275^\circ\text{W}$  (see LtE). TYLER (DTy)'s images were taken on 31 Jan ( $\lambda=046^\circ\text{Ls}$ ) at  $\omega=338^\circ\text{W}$ ,  $354^\circ\text{W}$ ( $356^\circ\text{W}$ )



and interestingly shows the sinking Syrtis Mj, but the refracting blue colour did not so vivid.

♂.....松本氏のccd像は24Jan( $\lambda=042^\circ\text{Ls}$ ) $\omega=275^\circ\text{W}$ に、1930年製の短焦点の中村要鏡で撮ったもので、像は小さいが、かなりの詳細が写っていて面白い。LtEを参照されたい。タイラー(DTy)氏の像は31Jan( $\lambda=046^\circ\text{Ls}$ ) $\omega=338^\circ\text{W}$ 、 $354^\circ\text{W}(356^\circ\text{W})$ で撮られたもので、夕方のシュルティス・マイヨルを狙ったものかと思うが、シーイングの所為か、浅葱色は出ていないと思う。

♂.....In the next issue we shall review the observations made during the one-month period from 16 February ( $\lambda=052^\circ\text{Ls}$ ,  $\delta=13.3''$ ) to 15 March 2010 ( $\lambda=065^\circ\text{Ls}$ ,  $\delta=10.6''$ ).

南 政 次・村上 昌己 M MINAMI & M MURAKAMI

*Forthcoming 2009/2010 Mars (15)*

## Ephemeris for the Observations of the 2009/10 Mars. VIII

### April 2010

Masami MURAKAMI 村上 昌己(MK)

As a sequel to the preceding Ephemeris, we here list the necessary elements of the Ephemeris for the physical observation of Mars from 1 April to 30 April 2010: The data are listed for every day at 00:00GMT (not TDT).  $\omega$  and  $\phi$  denote the longitude and latitude of the sub-Earth point respectively. The symbols  $\lambda$ ,  $\delta$  and  $\iota$  stand for the areocentric longitude of the Sun,

the apparent diameter and the phase angle respectively. We also add the column of the Position Angle  $\Pi$  of the axis rotation, measured eastwards from the north point: This is useful to determine the north pole direction from the  $p\leftarrow$ . The apparent declination of the planet is also given at the final column. The data here are basically based on *The Astronomical Almanac for the Year 2010*.

| Date (00:00GMT) | $\omega$ | $\phi$ | $\lambda$ | $\delta$ | $\iota$ | $\Pi$ | $D$     |
|-----------------|----------|--------|-----------|----------|---------|-------|---------|
| 01 April 2010   | 209.52°W | 14.2°N | 071.51°Ls | 9.23"    | 33.9°   | -7.4° | +22°21' |
| 02 April 2010   | 200.20°W | 14.3°N | 071.95°Ls | 9.15"    | 34.1°   | -7.3° | +22°16' |
| 03 April 2010   | 190.85°W | 14.4°N | 072.39°Ls | 9.07"    | 34.3°   | -7.1° | +22°11' |
| 04 April 2010   | 181.50°W | 14.5°N | 072.82°Ls | 9.00"    | 34.5°   | -6.9° | +22°06' |
| 05 April 2010   | 172.16°W | 14.6°N | 073.26°Ls | 8.92"    | 34.7°   | -6.8° | +22°01' |
| 06 April 2010   | 162.79°W | 14.7°N | 073.69°Ls | 8.84"    | 34.9°   | -6.6° | +21°55' |
| 07 April 2010   | 153.42°W | 14.9°N | 074.13°Ls | 8.77"    | 35.1°   | -6.5° | +21°50' |
| 08 April 2010   | 144.05°W | 15.0°N | 074.57°Ls | 8.70"    | 35.2°   | -6.3° | +21°44' |
| 09 April 2010   | 134.66°W | 15.1°N | 075.00°Ls | 8.62"    | 35.4°   | -6.1° | +21°38' |
| 10 April 2010   | 125.27°W | 15.2°N | 075.44°Ls | 8.55"    | 35.5°   | -6.0° | +21°32' |
| 11 April 2010   | 115.86°W | 15.4°N | 075.88°Ls | 8.48"    | 35.6°   | -5.8° | +21°26' |
| 12 April 2010   | 106.45°W | 15.5°N | 076.32°Ls | 8.42"    | 35.8°   | -5.6° | +21°20' |
| 13 April 2010   | 097.05°W | 15.6°N | 076.75°Ls | 8.35"    | 35.9°   | -5.4° | +21°14' |
| 14 April 2010   | 087.62°W | 15.8°N | 077.19°Ls | 8.28"    | 36.0°   | -5.2° | +21°07' |
| 15 April 2010   | 078.20°W | 15.9°N | 077.63°Ls | 8.22"    | 36.1°   | -5.0° | +21°01' |
| 16 April 2010   | 068.75°W | 16.1°N | 078.07°Ls | 8.15"    | 36.3°   | -4.8° | +20°54' |
| 17 April 2010   | 059.31°W | 16.2°N | 078.50°Ls | 8.09"    | 36.4°   | -4.6° | +20°48' |
| 18 April 2010   | 049.87°W | 16.3°N | 078.94°Ls | 8.02"    | 36.5°   | -4.4° | +20°41' |
| 19 April 2010   | 040.41°W | 16.5°N | 079.38°Ls | 7.96"    | 36.6°   | -4.2° | +20°34' |
| 20 April 2010   | 030.95°W | 16.6°N | 079.82°Ls | 7.90"    | 36.7°   | -4.0° | +20°27' |
| 21 April 2010   | 021.49°W | 16.8°N | 080.25°Ls | 7.83"    | 36.7°   | -3.8° | +20°20' |
| 22 April 2010   | 012.02°W | 16.9°N | 080.69°Ls | 7.77"    | 36.8°   | -3.5° | +20°12' |
| 23 April 2010   | 002.53°W | 17.1°N | 081.13°Ls | 7.72"    | 36.9°   | -3.3° | +20°05' |
| 24 April 2010   | 353.06°W | 17.2°N | 081.57°Ls | 7.66"    | 37.0°   | -3.1° | +19°57' |
| 25 April 2010   | 343.56°W | 17.3°N | 082.00°Ls | 7.61"    | 37.0°   | -2.8° | +19°50' |
| 26 April 2010   | 334.08°W | 17.5°N | 082.44°Ls | 7.55"    | 37.1°   | -2.6° | +19°42' |
| 27 April 2010   | 324.58°W | 17.6°N | 082.88°Ls | 7.50"    | 37.2°   | -2.4° | +19°34' |

| Date (00:00GMT) | $\omega$ | $\phi$ | $\lambda$ | $\delta$ | $\iota$ | $\Pi$ | $D$           |
|-----------------|----------|--------|-----------|----------|---------|-------|---------------|
| 28 April 2010   | 315.07°W | 17.8°N | 083.32°Ls | 7.44"    | 37.2°   | -2.1° | +19°26'       |
| 29 April 2010   | 305.56°W | 17.9°N | 083.75°Ls | 7.39"    | 37.3°   | -1.9° | +19°18'       |
| 30 April 2010   | 296.04°W | 18.1°N | 084.19°Ls | 7.33"    | 37.3°   | -1.6° | +19°10'       |
| 01 May 2010     | 286.52°W | 18.2°N | 084.63°Ls | 7.28"    | 37.3°   | -1.3° | +19°02'       |
| 02 May 2010     | 276.99°W | 18.4°N | 085.07°Ls | 7.23"    | 37.4°   | -1.1° | +18°54' - - - |

## 便り

## Letters to the Editor

●.....*Subject: Mars Drawings Kz07Feb10*  
*Received: Tue 09 Feb 2010 00:04:05 JST*

2月7日分のスケッチ2枚を送信します。7日も、6日に引き続き、昼間はものすごい風が吹き荒れ、夜になってようやく収まりました。ただ、上空の気流は乱れたままらしく、シーイングはなんとかピントが合わせられる程度でした。ただ、火星面は、あちこちに雲が出て、壮観でした。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100207/Kz07Feb10.jpg>

○.....*Subject: Mars Drawings Kz08Feb10*  
*Received: Tue 09 Feb 2010 22:29:27 JST*

2月8日分のスケッチ2枚を送信します。夕方から曇りという天気予報でしたが、雲が出るのが遅れ、運良く、2枚スケッチをとることができました。本日2月9日からしばらく雨や曇りという予報で、今週いっぱい、観測できないかもしれません。残念です。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100208/Kz08Feb10.jpg>

○.....*Subject: Mars Drawings Kz 19 Feb 10*  
*Received: Sat 20 Feb 2010 14:25:06 JST*

2月19日分のスケッチ3枚を送信します。晴れ間が出ず、10日ほど間があいてしまいました。10日間でしたが、感覚的なものを忘れていて、マレ・アキダリウムの位置取りなどに苦労しました。10日前に比べて、ずいぶん模様が濃くなったように感じます。単に、模様が濃い $\omega$ ということかもしれません。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100219/Kz19Feb10.jpg>

○.....*Subject: Mars Drawings Kz 20 Feb 10*  
*Received: Sun 21 Feb 2010 22:54:34 JST*

一昨日に引き続き、昨日も晴れましたので、スケッチ3枚をとることができました。昼間は無風で暖かく、良いシーイングを期待していましたが、夜になって風が出まして、一昨日よりもシーイングは劣りました。ただ、なんとか480倍を使えますし、12月、1月の気流の悪さからすると、春が近いことを感じました。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100220/Kz20Feb10.jpg>

神崎 一郎 (Ichiro KOHZAKI 東久留米Tokyo)

●.....*Subject: Mars Feb 01 to 02*  
*Received: Tue 09 Feb 2010 09:52:32 JST*

Hi, Mars in fair to good seeing conditions, the dust on NPC is clearly seen on the second image.

[http://astrosurf.com/pcasquinha/mar100201\\_02.jpg](http://astrosurf.com/pcasquinha/mar100201_02.jpg)

○.....*Subject: Mars 2010-02-06*  
*Received: Sun 14 Feb 2010 23:44:40 JST*

Mars from Feb 6 in good seeing  
<http://astrosurf.com/pcasquinha/mar100206.jpg>

My best regards

○.....*Subject: Mars Feb 09*  
*Received: Sun 21 Feb 2010 07:25:53 JST*

Mars with a delay of two weeks, from Feb 09, taken in fair seeing

<http://astrosurf.com/pcasquinha/mar100209.jpg>

My best regards

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

●.....*Subject: Mars 07-February-2010*  
*Received: Tue 09 Feb 2010 10:13:32 JST*

Dear Masatsugu, The weather has not been cooperating for this years Mars apparition. Way too many cloudy nights. It did manage to clear on Saturday and I was able to take the attached images. They show an interesting blue haze on the morning terminator and the blue images show a very thin cloud band along the equator. This can be seen in the color images a very subtle change in color near the equator.

Well it's raining again and it looks like it will be a number of days before it clears. However, I plan to keep observing whenever it's clear here! Best wishes,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100207/WF107Feb10.jpg>

○.....*Subject: Mars - 16 February 2010*  
*Received: Thu 18 Feb 2010 12:52:00 JST*

Dear Masatsugu, Attached is a set of Mars images from February 16th. We finally had a good clear night here. I hope you are doing well. Best wishes,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100216/WF116Feb10.jpg>

Bill FLANAGAN (ヒ°ル・フラナガン Houston TX 美)

●.....*Subject: mars 8 feb*  
*Received: Tue 09 Feb 2010 11:53:34 JST*

Hello OAA- Group, Seeing & atmosphere was terrible But nice it shown the Elysium Mons. Ciao

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100208/SGh08Feb10.jpg>

○.....*Subject: mars 10 feb*  
*Received: Thu 11 Feb 2010 15:22:56 JST*

Hi OAA Group, seeing & atmosphere was average. information: telescope Celestron 11" Schmidt Cassegrain Focal length 2800 mm, focal ratio 10, camera DMK AU04AS mono+2xBarlow+6 cm filter wheel f 36.5, 15fps. Filter: astronomik RGB, processing software: regitax & PS. Cheers

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100210/SGh10Feb10.jpg>

○.....*Subject: mars 6 feb*  
*Received: Sat 13 Feb 2010 06:54:16 JST*

Hello My Guys, Hear is Mars 6 february 2010 seeing was average atmosphere was good, PLS see you it. Ciao

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100206/SGh06Feb10.jpg>

○.....**Subject: mars 17& 18 February**  
**Received: Sat 20 Feb 2010 02:51:37 JST**

Hi OAA- Group, 3 Days my internet was out of work  
 Seeing & atmosphere was average.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100217/SGh17Feb10.jpg>  
<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100218/SGh18Feb10.jpg>

**Sadegh GHOMIZADEH**

(サデグ・ゴミザデ Tehran 伊朗)

●.....**Subject: Mars 4.2.2010**  
**Received: Tue 09 Feb 2010 16:52:12 JST**

Dear Masatsugu, in the attachment you find mars images from 4th February. Don't wonder about the strange RGB-channels. especially the blue channel. My RGB-Filter-Set was insufficient and the ordered new set hasn't reached me yet. Because of this, i made no RGB-Composit, it looks too terrible. For further images, i hope to get better performance. With best wishes

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100204/RGh04Feb10.jpg>

**Ralf GERSTHEIMER**

(ラルフ・ゲルシュトハイマー-Habichtswald 徳)

●.....**Subject: Mars Ak08Feb10**  
**Received: Tue 09 Feb 2010 17:46:15 JST**

昨夜の火星です。相変わらず、屋上の風は治まらず、ぶれた火星像なので、1セットを撮って諦めました。体調も回復中ですのでここは無理をしないで退散しました。IR像が読み込めず、出来ませんでした。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100208/Ak08Feb10.jpg>

○.....**Subject: Mars Ak12Feb10 AK14Feb10 AK15Feb10**  
**Received: Tue 16 Feb 2010 14:27:37 JST**

最近の火星です。気流が少し改善し、解像度が上がってきました。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100212/Ak12Feb10.jpg>  
<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100214/Ak14Feb10.jpg>  
<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100215/Ak15Feb10.jpg>

**阿久津 富夫**(Tomio AKUTSU セブThe Philippines)

●.....**Subject: Mo 02 Feb 10**  
**Received: Wed 10 Feb 2010 01:38:11 JST**

02Febの処理が終わりましたのでお送りします。ずっと雨で、少しは晴れないかと思っています。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100202/Mo02Feb10.jpg>

○.....**Subject: Mo 03 Feb 10**  
**Received: Thu 11 Feb 2010 23:22:38 JST**

03Febをお送りします。黄塵がもう少し発達するかと思っていましたが、かえって見えなくなっていました。02日は狙っていたのですがうす雲を通してで、ぼけてしまいました。今日も雨です。撮れない期間に黄塵も薄くなった様ですが...

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100203/Mo03Feb10.jpg>

○.....**Subject: Mo 13 Feb 10**  
**Received: Sun 14 Feb 2010 23:37:16 JST**

昨日は薄雲の中しばらく待っていましたが、良くなり何とかなったのを見計らって撮像しました。今日は雨になりましたが、明後日は又晴れマークがついていますので、撮像出来そうです。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100213/Mo13Feb10.jpg>

○.....**Subject: Mo 19 Feb 10**  
**Received: Sun 21 Feb 2010 13:18:30 JST**

19日をお送りします。極冠中に黄塵が見られ

るようです。20日も撮っていますが、Seeing が悪く今から処理にてこずっています。今日は快晴で暖かく、夜が楽しみです。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100219/Mo19Feb10.jpg>

**森田 行雄** (Yukio MORITA 廿日市 Hiroshima)

●.....**Subject: Mars Evening of 9th Feb**  
**Received: Wed 10 Feb 2010 09:40:14 JST**

Hi All, Managed to get a single gap in the cloud of just enough length to get a Red, a Green and a Blue image.

Seeing was the best of the apparition when looking through gaps in fast-moving low cloud! Nice faint band of bluish haze across centre of planet and across Syrtis Major. Cheers,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100209/MLw09Feb10.jpg>

○.....**Subject: Mars Evening of 10th Feb**  
**Received: Fri 12 Feb 2010 05:12:06 JST**

For sake of completeness here is an RGB from last night taken in moderate to poor seeing and the session terminated by clouds again. Cheers,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100210/MLw10Feb10.jpg>

○.....**Subject: Mars Late evening of 17th Feb**  
**Received: Sat 20 Feb 2010 07:50:07 JST**

Fighting the clouds again but managed to get a nice view with the darker areas much more prominent than other recent images even with the same processing technique in Registax (same wavelt settings) and scope/camera set-up.

Odd? Is this transparency dependent? Cheers,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100217/MLw17Feb10.jpg>

○.....**Subject: Mars Early evening of 17th Feb**  
**Received: Sun 21 Feb 2010 05:58:49 JST**

Here is an image of the bland side of Mars taken earlier in the evening on 17th in reasonable seeing showing orographic clouds over Olympus Mons, Arcadia and the 3 Tharsis volcanoes. Cheers,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100217/MLw17Feb10.jpg>

**Martin LEWIS** (マーチン・ルイス St Albans Hts 英)

●.....**Subject: Mars Observation (February 7, 2010)**  
**Received: Wed 10 Feb 2010 07:31 JST**

Dear Mr. Murakami, I hope that you, Dr. Minami, and the CMO staff have been doing well. This has been a very exciting Mars apparition to date. The North Polar Cap (NPC) is sublimating quickly at this time. The images and observations posted on the CMO web site have been excellent.

I made an observation of Mars on February 7, 2010 under average seeing conditions (5/10, with brief moments of 7/10). The amount of detail noted was impressive and difficult to render at times due to the complexity of the features noted. I welcome any comments that you may have on my observation.

**Date (U.T.): February 7, 2010; Time (U.T.): 03:30-04:30**

CM (Degrees West): 019.5°-034.2°; Ls 048.3°, De 013.5°, Ds 018.3°, p 100%, 13.9"; Instrument: 9-inch (23-cm) F/13.5 Maksutov-Cassegrain; Magnification: 295x and 388x

Filters (Wratten): 30 (Magenta) and 80 (Blue); Seeing (1-10): 5 (moments of 7), Antoniadi (I-V): III; Transparency (1-6): 5

**Notes:** 03:45 U.T. (CM 023.2°W, Wratten 30 (Magenta)): The North Polar Cap (NPC) was brilliant (10/10) and has reduced in size (diameter) significantly compared to previous observations. The NPC was surrounded by a dark (3/10) composed of Ortygia and Mare Boreum. Mare Acidalium is visible follow

ing the central meridian (CM) and appears dark to dusky (3-4/10) with condensations noted within. Achillis Pons appeared bright (7/10) with a haze overlying it. Niliacus Lacus appeared dark to dusky (3-4) with Nilokeras (3-4/10) projecting from it's following border. Idaeus Fons appeared as a dark to dusky (3-4/10) "knob" projecting northward from Nilokeras. Lunae Lacus appears to be obscured by a very bright (8/10) haze over the following (morning) limb. Chryse-Xanthe appears bright (7/10) without detail visible within it. Xenius Fretum appears over Cydonia (7/10) as a triangular-shaped dusky (4/10) albedo feature. Sinus Sabaeus and Sinus Meridiani appear dark to dusky (3-4/10) over the South preceding (Sp) limb. Margaritifer Sinus appears a dark to dusky (3-4/10) triangular-shaped albedo feature on the CM with Oxia Palus (4/10) visible south of it. Mare Erythraeum appeared dark to dusky (3-4/10) and mottled with Pyrrhae Regio as a bright (7/10) area over it's center. Aurorae Sinus appeared dark to dusky (3-4/10) towards the following limb. The preceding (evening) and southern limb appeared very bright (8/10). The following (morning) limb appeared very to extremely bright (8-9/10).

04:15 U.T. ((CM 021.8°W, Wratten 80 (Blue)): The North Polar Cap (NPC) appeared brilliant (10/10). Morning (preceding) limb haze appeared very bright (8/10). Southern limb haze (SLH) appeared very bright (8/10). Morning limb haze (MLH) appeared very to extremely bright (8-9/10). Albedo features were visible without much difficulty at this wavelength.

The best of luck to you, Dr. Minami, CMO staff and in your own observations of Mars. Regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100207/CHr07Feb10.jpg>

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

●.....**Subject: mars 9feb2010**  
**Received: Wed 10 Feb 2010 18:48:40 JST**

Hi Guys, Here are a few Image taken in " will it won't it" conditions. I was lucky this day as "it did" for the sun too. Best wishes

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100209/DTy09Feb10.jpg>

○.....**Subject: Mars 31 Jan 2010**  
**Received: Sat 13 Feb 2010 08:14:56 JST**

Hi guys, a trio of images from the last day in Jan. best wishes

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100131/DTy31Jan10.jpg>

**Dave TYLER** (デヴィッド・タイラー Bkh 英)

●.....**Subject: Mars images 09-Feb-1010 - Syrtis Major**  
**Received: Wed 10 Feb 2010 19:51:57 JST**

Hi all, Here are 2 images of Mars from last night in fair to good seeing in between cloudy periods. Both RGBs at 125%:

<http://www.astro-sharp.com/images/mars2010/mars-2010-02-09-ids.jpg>  
The individual images with colour channels shown:

<http://www.astro-sharp.com/images/mars2010/mars-2010-02-09-21-31-ids.jpg>  
<http://www.astro-sharp.com/images/mars2010/mars-2010-02-09-22-36-ids.jpg>

○.....**Subject: Mars 19-Feb-2010 Good Seeing**  
**Received: Sat 20 Feb 2010 19:32:07 JST**

# TEN YEARS AGO (174)

---CMO #228 (25 February 2000) pp2683~2694 ---

<http://www.hida.kyoto-u.ac.jp/~cmo/cmo/228/cmo228.html>

巻頭のCMO Mars Reportは21回目を数え、2000年一月後半から2000年二月前半までの観測報告が纏められている。当時の火星は観測末期で、日没時に捉えて数観測出来るという状況で、視直径も5秒角を下回った。季節は $\lambda=283^\circ\text{Ls}\sim 302^\circ\text{Ls}$ で、南半球には黄雲の発生する可能性があり監視が続けられたが、この期間の観測では異常は認められなかった。報告者数は8名となった。次いで、1998/99 Mars CMO Note (4) で取り上げているのは、「1998/99年の観測頻度分布図の試み」

"Distributions of the observation rates of Ak, Id, Iw, Mk, Mn, Nj and DPK in 1998/99" で、タイトルに含まれる七人の、今接近における一ヶ月ごとの観測数を視直径 $\delta$ と $\delta^2$ の変化のグラフに重ねて示している。

LtEは、D PARKER (USA), S WHITBY (USA), D KLASSEN (USA), TAN W-L (Singapore), B COLVILLE (Canada) の外国の諸氏と、国内の、常間地(神奈川)、伊舎堂(沖縄)、森田(広島)、日岐(長野)の方々から寄せられた。巻末には、村上の「藤沢便り」が取り上げられている。

TYA(54)は、CMO#084(25Feb1990)が紹介されている。廿年前の朝方の火星は「いて座」にあり、少し離角が出来て、午前三時には地平線から顔を出すようになっていたが、観測報告はMn氏からのものだけだった。1988CMO観測ノートとして、#10「火星観測における分光特性について」白尾元理氏、#11「十月上旬のM Acidalium上の白雲について」南政次氏の二篇がある。また、浅田正による暦表(May~August 1990)も掲載されていた。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmo/228/tya054.html> 村上 昌己 (Mk)

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# MARS

No. 228  
25 February 2000

OBSERVATIONS Published by the OAA Mars Section

CMO Mars Report # 21 (1998/99) OAA Mars Section  
 〇..... 色々終焉を迎える。最早、火星は西に傾いて傾いているが、ただ視直径が上がっている為、辛うじて日没時に捉えられる。今回は16 Jan 2000 (283° Ls)から15 Feb 2000 (302° Ls)迄を扱う。この間、火星の視赤緯は10°ほど上がり、15Febには天の赤道に戻って来ている。視直径 $\delta$ は4.9秒角から、4.5秒へ落ちた。中央緯度 $\phi$ は25°Sから26°Sで最も深くなった。位相角 $\epsilon$ は29°から24°になった。  
 THE planet Mars is now low in the west, though its apparent declination became back up near the celestial equator. We here deal with the observations made during the period from 16 January 2000 (283° Ls) to 15 February 2000 (302° Ls).  
 The apparent diameter  $\delta$  was down from 4.9" to 4.5" of arc during the period, while the central latitude  $\phi$  was deep from 25° S to 26° S (the deepest). The phase angle  $\epsilon$  was from 29° to 24°.

〇..... 流石に観測数が増えてきた。今回CMOに報告を寄せた観測者も次の方達のみである：  
 We are thankful to the following observers: The observations have decreased in number, partly because the weather was dismal these days.  
 ISHADOH, Hiroshi 伊舎堂 弘 (Id) 那覇 Naha, Okinawa, Japan  
 2 Drawings (19, 28 January 2000) 340, 400x31cm speculum  
 MELILLO, Frank J フランク・メリッロ (FM) 紐約 Hotsville, NY, USA  
 1 Set of CCD Images (5 February 2000) 20cm SC Starlight Xpress MX-5  
 MINAMI, Masatsugu 南 政次 (Mn) 福井 Fukui, Japan  
 6 Drawings (18, 28 January; 5, 7, 13 February 2000) 400x20cm refractor\*  
 MORITA, Yukio 森田 行雄 (Mo) 日田市 Hatsuoka-ichi, Hiroshima Japan  
 4 Sets of CCD Images (11, 12, 13 February 2000) f/50x25cm spec with an ST-SC  
 MURAKAMI, Masami 村上 昌己 (Mk) 藤澤 Fujisawa, Kanagawa, Japan  
 2 Drawings (29, (30) January; (11), 12 February 2000) 425x20cm speculum  
 NAKAJIMA, Takashi 中 島 孝 (N) 福井 Fukui, Japan  
 5 Drawings (18, 28 January; 7, 13 February 2000) 400x20cm refractor\*  
 PARKER, Donald C ドナルド・パーカー (DPK) 佛羅里達 Miami, FL, USA  
 1 CCD Red Image (22 January 2000) f/55x41cm spec equipped with with a Lyxax PC  
 TAN, Wei-Leong 陳 韋龍 (WTn) 新加坡 Singapore  
 1 CCD Image (12 February 2000) f/21x28cm SC equipped with with an ST-7E  
 \*福井市自然史博物館屋上天文臺 Fukui City Observatory

Hi all, Good seeing again last night. Here is a view with almost exactly the same CM as Damian's image from the 17th. Still the bright Olympus cloud and the NPC projection visible.

<http://www.astro-sharp.com/images/mars2010/mars-2010-02-19-22-16-ids.jpg>

Best Regards

**Ian SHARP** (イアン・シャープ WS 英)

●.....**Subject: Mars 2010/02/09**  
**Received: Wed 10 Feb 2010 20:57:29 JST**

Hello, Here is Mars on 2010/02/09. The transparency was average and the wind was sometimes annoying. Temperature : -2.5°C. Regards

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100209/JpP09Feb10.jpg>

○.....**Subject: Mars 2010/02/16**  
**Received: Thu 18 Feb 2010 03:04:02 JST**

Hello, Here is Mars on 2010/02/16. The transparency was average. Temperature : -4.5°C. Regards

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100216/JpP16Feb10.jpg>

**Jean-Jacques POUPEAU**

(ジャン=ジャック・プーポ - Essonne 法)

●.....**Subject: Re: Mars 2010, 02/03 02:58ut**  
**Received: Wed 10 Feb 2010 05:35:12 JST**

Hi Masatsugu, I did not see feb 3rd posted so dont know if it got lost in the internet. If recieved disregard same. Here is another session from Februar 8th,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100208/EMr08Feb10.jpg>

○.....**Subject: RE: Re: Mars 2010, 02/03 02:58ut**  
**Received: Thu 11 Feb /2010 21:57:22 JST**

Hi Masatsugu, Thank you very much informing me. I thought i was having a problem with the network, Btw your report article is very informative and educative :). I will do as recommended in emailing to both and thank you again and Clear Skies to All.

○.....**Subject: Mars 02/09/10 04:16ut**  
**Received: Mon 15 Feb 2010 23:41:24 JST**

Hi everyone, Here is my latest processed session of February 9th.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100209/EMr09Feb10.jpg>

○.....**Subject: Mars Feb.13th, 04:10ut**  
**Received: Tue 16 Feb 2010 07:18:29 JST**

Hi Masatsugu, This is my latest session from Feb.13th. The dark band at the edge of the nph is it soil color or dust it has been persistant in the last couple of days?.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100213/EMr13Feb10.jpg>

○.....**Subject: Mars-Feb.17th, 01:54ut**  
**Received: Fri 19 Feb 2010 09:17:23 JST**

Hi Masatsugu, This is my latest processed session from the 17th of Feb., Clear Skies.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100217/EMr17Feb10.jpg>

○.....**Subject: Mars-Feb.15th, 03:11ut**  
**Received: Sun 21 Feb 2010 11:55:20 JST**

Hi Masatsugu, My latest processed session from the 15th, February, Clear Skies.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100215/EMr15Feb10.jpg>

**Efrain MORALES RIVERA**

(エフライン・モラレス=リベラ Puerto Rico 波多黎各)

●.....**Subject: Mars, Feb 9th under reasonable seeing**  
**Received: Wed 10 Feb 2010 23:07:09 JST**

Hi all, I was planning on doing something other than Mars last night but the seeing settled down quite nicely. Here's my first processed result of the night.

[http://www.digitalsky.org.uk/mars/2010-02-09\\_23-46-04\\_rgb-flat.jpg](http://www.digitalsky.org.uk/mars/2010-02-09_23-46-04_rgb-flat.jpg)

○.....**Subject: Mars, Feb 19th 2010, CM 181.9 - good seeing**  
**Received: Sun 21 Feb 2010 20:52:12 JST**

Hi all, Some reasonably steady seeing over the last couple of nights. Here is my first Mars image result from Feb 19th showing the bright orographic clouds and detail in the NPC. Some subtle shadings in the sands of Mars coming though as well.

[http://www.digitalsky.org.uk/mars/2010-02-19\\_21-46-36\\_RGB+channels.jpg](http://www.digitalsky.org.uk/mars/2010-02-19_21-46-36_RGB+channels.jpg)

Best regards,

**Pete LAWRENCE** (ピート・ローレンス Selsey 英)

●.....**Subject: Mars Feb 10th**  
**Received: Thu 11 Feb 2010 18:35:01 JST**

Hello everybody, Feeling bold today so sharing my sketch from yesterday evening. Pastels on white paper. 20.30 ut, 150mm OG (triplet) 350x ND filter.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100210/DH110Feb10.jpg>

**Dale HOLT** (デーラール・ホルト Chipping, Hfs 英)

●.....**Subject: Mars image 10th february 2010**  
**Received: Thu 11 Feb 2010 21:51:43 JST**

Dear Sirs, I submit you this image of mars, taken from Paret del Valles, Barcelona.

Date: February, 10th, 2010; Time: 22:46 UTC; Telescope: C9,25" F40; Camera: DMK 21AF04 + Astronomik RGB filters. Best Regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100210/ABs10Feb10.jpg>

○.....**Subject: FW: Mars image 3th february 2010**  
**Received: Fri 12 Feb 2010 02:00:25 JST**

Dear Sirs, I've processed some other images from mars, from last night 10th of february, and I think some of them has better quality than the one I sended you previously. Date: February, 3rd, 2010; Time: 22:02, 22:26 and 22:46 UTC; Best Regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100203/ABs03Feb10.jpg>

**Albert BOSCH** (アルベルト・ボッシュ Barcelona 西)

●.....**Subject: Mars Images (February 10th, 2010.)**  
**Received: Fri 12 Feb 2010 07:20:31 JST**

Hi all, Here are some images from last night. Reasonable seeing. Syrtis Major was nicely presented, showing dense clouds over Aeria, extending over Syrtis forming a weak ECB. Nice Elysium orographic clouds.

[http://www.damianpeach.com/mars09/2010\\_02\\_10rgb.jpg](http://www.damianpeach.com/mars09/2010_02_10rgb.jpg)  
[http://www.damianpeach.com/mars09/2010\\_02\\_10red.jpg](http://www.damianpeach.com/mars09/2010_02_10red.jpg)  
[http://www.damianpeach.com/mars09/2010\\_02\\_10grmbly.jpg](http://www.damianpeach.com/mars09/2010_02_10grmbly.jpg)

○.....**Subject: Mars Images (February 17th, 2010.)**  
**Received: Fri 19 Feb 2010 08:07:33 JST**

Hi all, Here are some images from the 17th. Good seeing during the brief clear periods. Note the brilliant Olympus orographic cloud, and the diffuse projection off of the NPC.

[http://www.damianpeach.com/mars09/2010\\_02\\_17rgbred.jpg](http://www.damianpeach.com/mars09/2010_02_17rgbred.jpg)  
[http://www.damianpeach.com/mars09/2010\\_02\\_17grmbly.jpg](http://www.damianpeach.com/mars09/2010_02_17grmbly.jpg)

Best Wishes,

**Damian PEACH** (デミアン・ピーチ Bkh 英)

●.....*Subject: Mars Feb 12*  
*Received: Sat 13 Feb 2010 08:49:24 JST*

After weeks of bad weather, finally a reasonably clear sky. Seeing was average to fair. Collimation of the C9.25 was not perfected yet, didn't want to spend time finetuning fearing clouds would roll in again. As it did tonight... now the scope is collimated well, but the clouds prevented imaging :) Best regards

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100212/DDr12Feb10.jpg>

**Dominique DIERICK** (ドミニク・ディエリック Belgium 比利时)

●.....*Subject: mars obs 12th last from SMk*  
*Received: Sat 13 Feb 2010 19:26 JST*

Good morning, Here is the obs of yesterday evening with the 150 cassegrain. Some notes with. The polar cap structure is still interesting to follow. Have good receipt of the present mail. Faithfully yours

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100212/SMk12Feb10.jpg>

○.....*Subject: mars obs from SMK on 19th last*  
*Received: Sun 21 Feb 2010 12:09 JST*

Good afternoon, Here is the obs of mars performed last 19th with the 150mm refractor. Comments are attached with the sketches. Have good receipt of the present mail. Faithfully yours.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100219/SMk19Feb10.jpg>

**Stanislas MAKSYMOWICZ**

(スタニスラス・マクシモウィッチ Ecquevilly 法)

●.....*Subject: 12 02 2010 Mars*  
*Received: Sun 14 Feb 2010 02:44:29 JST*

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100212/JSd12Feb10.jpg>

**José Antonio SOLDEVILLA GONZALES**

(ホセ=アントニオ・ソルデビージャ nr Barcelona 西)

●.....*Subject: Mars-2010-02-13-KUMAMORI*  
*Received: Sun 14 Feb 2010 08:00:41 JST*

南政次様、熊森照明です。雲は多いのですが久しぶりに晴れました。赤緯が高くなり、ベランダから見えている時間が短くなりました。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100213/Km13Feb10.jpg>

○.....*Subject: Mars-2010-02-16-KUMAMORI*  
*Received: Tue 16 Feb 2010 23:42:36 JST*

天気予報が外れて晴れましたが、シーイングは相変わらず悪い状態です。明け方の霧?の巾がかなり大きく見えます。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100216/Km16Feb10.jpg>

○.....*Subject: Mars-2010-02-18-KUMAMORI*  
*Received: Thu 18 Feb 2010 22:56:37 JST*

雲が多く、晴れたときはベランダから撮影できるギリギリで、かろうじて1セット撮影できました。でもシーイングはさっぱりで、雰囲気だけしか分かりません。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100218/Km18Feb10.jpg>

○.....*Subject: Mars-2010-02-20-KUMAMORI*  
*Received: Sat 20 Feb 2010 23:13:27 JST*

今夜も晴れたのは望遠鏡がベランダ手すりにぶつかる直前でした。でも、シーイングは良くなっています。北極冠が随分といびつになっていますが、雲でしょうか?

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100220/Km20Feb10.jpg>

**熊森 照明** (Teruaki KUMAMORI 堺 Osaka)

●.....*Subject: Mars 12 February*  
*Received: Sun 14 Feb 2010 14:17:28 JST*

Hi All, I have attached some RGB Mars images from 12 February taken with my 10-inch Mewlon DK. The NPC dust appears to be lingering along the western edge of the NPC. Also there are bright clouds over Libya-Isidis and clouds over Chryse. Best,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100212/DPk12Feb10.jpg>

○.....*Subject: Mars 7 February*  
*Received: Wed 17 Feb 2010 08:43:45 JST*

Hi All, I have attached a belated RGB image of Mars from 7 February. The NPC appears bisected by a dust streak, with dust covering its western edge. Moderate violet clearing is again noted. Best,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100207/DPk07Feb10.jpg>

**Don PARKER** (ドナルド・パーカー Miami FL 美)

●.....*Subject: Mars: February 13, 2010*  
*Received: Sun 14 Feb 2010 15:06 JST*

Hi - I have attached my latest image of Mars February 13, 2010 to be posted. Thanks,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100213/FM113Feb10.jpg>

○.....*Subject: Mars: February 20, 2010*  
*Received: Sun 21 Feb 2010 15:34 jst*

Hi - I have attached my latest image of Mars February 20, 2010 to be posted. Thanks,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100220/FM120Feb10.jpg>

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

●.....*Subject: Re: 春節*  
*Received: Mon 15 Feb 2010 22:34:56 JST*

南政次様、わたしは無事です。ただ腰が痛い日が多く、昔の様には外を歩き回れなくなりました。

わたしの娘でアメリカに30年住んでいる娘から先月今まで見たことのない火星表面写真を送ってきました。これを邱國光さん、陶蕃麟さんに送ったところ、二人ともびっくりしていました。写真の中にある文字はヘブライ文字だろうと思います。意味がわかりません。わたしの娘は天文学に特別に興味があるわけでないけれども、非常に特殊な写真だと思ったのでしょうか。南さんはどうにこの写真を手に入れたのだろうと思いますが、念のため転送します。敬具

[http://www.hida.kyoto-u.ac.jp/~cmo/cmomm5/Mars\\_Reconnaissance\\_photo\\_2010.pps](http://www.hida.kyoto-u.ac.jp/~cmo/cmomm5/Mars_Reconnaissance_photo_2010.pps)

**賴 武揚** (W.-Y. LAI 臺北 Taiwan)

●.....*Subject: 平信*  
*Received: Tue 16 Feb 2010 11:49:05 JST*

南政次様、先日はお電話頂き、有難うございました。お目に掛かれるのを楽しみにしております。今回の火星接近は小生にとり、最後の機会かまなどと思ひ、18センチ屈折で観望しておりますが、飛蚊症が激しいのでスケッチはやめ、ToUcam2で撮像しています。しかしなんといっても眼でみるのが一番の楽しみです。

過日ふと思ひ立ち、日本における火星観測の先達とも言える中村要(Kanamé\_NAKAMURA)さんの

磨かれた25cm鏡で撮像してみました。この鏡、NKM195は径248mm、FL948mmの短焦点鏡で、中村氏の作られた最大のもので、1930年製作で80年を経えており、小生も1930年生まれですので、親近感一入のものがあります。メツキも40年くらい経過しており傷も多く、どうかなど思いながら撮像したものを添付しましたのでご笑覧ください。寒さ厳しい折から、ますますご自愛のほどお願い申し上げます。まずは近況まで。



<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100124/TMt24Jan10.jpg>  
**松本達二郎** (Tatsujiro\_MATSUMOTO 尼崎Hyogo)

●.....*Subject: RE: Mars 7 February*  
*Received: Wed 17 Feb 2010 08:58:44 JST*

YeeGads, the dreaded Rima Tenuis!!!! :) Once again someone will discover this and build a whole career on it!!!! 8-)))))))))

○.....*Subject: RE: RE: Mars 7 February*  
*Received: Wed 17 Feb 2010 21:30:12 JST*

Christophe, I am not sure we ignored their existence so much as we really didn't know what those streaks were. A detailed polar area is nearly impossible to photograph in the old days of film and viewing it visually was not easy either. From all my visual observations while paying close attention to details I could never tell what color those streaks were so the idea they were dust was not an option then. Most of the time the streaks were near the threshold of vision and it took me a long time to resolve anything within the cap, so I could not tell what they were. Now with modern electronic imaging it is clear what they are from colorimetry and just common sense. I often wonder what some of the past astronomers could have done with just a web-cam J Like, the modern calculator in the hands of Einstein!

**Jeff BEISH** (シエフ・ヒーシュ Lake Placid FL美)

●.....*Subject: Re: RE: Mars 7 February*  
*Received: Wed 17 Feb 2010 15:40:53 JST*

Good remark Jeff: After having seen all the recent dust fronts above the NPC, it seems clear to me that the old observations of Rima Tenuis were merely dust fronts above the cap, at a time when we were ignoring their existence... Regards

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

●.....*Subject: FW: Mars from Minnesota*  
*Received: Wed 17 Feb 2010 22:05:17 JST*

Dear Masatsugu, This winter the weather has been severe, and I haven't been observing as much as I'd like;

it's too cold to be fiddling with gear. However, I finally was able to get an image of Mars I like—with my C-11; date Saturday, Feb. 10, 2010. The detail isn't too overprocessed—and shows Mars as it looks to my eye. Subtle colors (with the Syrtis Major Blue Cloud visible at the limb on one side and morning clouds on the other), even some hints of “canals.” Best wishes,



**Bill SHEEHAN** (ウィリアム・シーハン MN 美)

●.....*Subject: mars sketch 17/02/10*  
*Received: Thu 18 Feb 2010 03:55:34 JST*

Hi, here is my sketch from 17 february. Date: 17/02/10; Time: 01h30 UT; location: Bornem, Belgium; instrument: 8" f/5 dob on GEM; magnification: 278x seeing: good; filters: #82A Blue. Greetings,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100217/KSM17Feb10.jpg>

**Kris SMET** (クリス・スメト Belgium 比利时)

●.....*Subject: Mars, February 17th*  
*Received: Thu 18 Feb 2010 09:59:20 JST*

Hi all: I shot a number of videos of Mars last night. This image is processed from the best of these.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100217/TPk17Feb10.jpg>

○.....*Subject: Mars February 18th, 6" f/10.3*  
*Received: Fri 19 Feb 2010 04:44:40 JST*

Hi all: Seeing was a little better last night than previous (somewhere between a 6 and a 7 while I was out). I chose to use the 6" f/10.3 ClearVue mirrors Newt, to see if it would perform better than the 8" Cave, since the Cave has never been recoated and needs it!

Here are the results from the best of about 4 videos. I'm not sure why I'm getting the processing artifacts around the limb, particularly near the NPC, as I haven't noticed this effect before. It was actually foggy when I woke up this morning. I should have stayed up later than I did, since the seeing likely improved before it fogged up. Tonight might be another chance, then the Jet Stream is supposed to bring more weather our way tomorrow, so it might get quiet out here for a while.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100218/TPk18Feb10.jpg>

**Tim PARKER** (ティモシー・パーカー NASA 美)

●.....*Subject: MARS 17.02.10*  
*Received: Fri 19 Feb 2010 23:47:49 JST*

Dear All, An image from Wednesday night. I think there may be signs of Olympus Mons and its clouds (near LH limb), also some faint equatorial clouds? ...

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100217/SKd17Feb10.jpg>

○.....*Subject: Mars 20th Feb 2010*  
*Received: Mon 22 Feb 2010 02:17:15 JST*

Dear All, An image from Last night.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100220/SKd20Feb10.jpg>

For once the 'bland' face of Mars proving more interesting. Some clouds in evidence. Seeing really quite good for about 20 mins, deteriorating gradually after about 22:40. I was unable, in the time, to both take a few runs

on the camera and also load the binoviewers; a shame as I should have liked to have seen what detail was there visually. I did try running at a larger than normal image scale, but in the end that proved worse than my 'standard' setup. Cheers

**Simon KIDD** (サイモン・キッド Herts 英)

●.....*Subject: Mars image feb 19, 2010*  
*Received: Sat 20 Feb 2010 09:41 JST*

Attached is my image from Feb 19, 2010 0415ut  
<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100219/DAd19Feb10.jpg>  
**David ANDERSON** (デヴィッド・アンダーソン SC 美)

●.....*Subject: Re: RE:Current Issue-with photo of Sam*  
*Received: Sat 20 Feb 2010 23:38:19 JST*

Dear Masatsugu, I am glad you were not injured in your collision with the rice field. January 28 is a historic date, with the Challenger disaster, Don Parker's birthday, my mother's stroke, and now Masatsugu's survival at the rice field. My car was not economically repairable. We have a new car, a Ford Fusion hybrid, very efficient. I am still sore and unable to work, but I am no longer in acute pain.

CMO 367 arrived yesterday. Thank you for sending it. Best wishes.

**Sam WHITBY** (サミュエル・ホイットビー VA 美)

●.....*Subject: Mars on 17th*  
*Received: Sun 21 Feb 2010 04:32:03 JST*

Hello everyone, At last a processed image from 3 nights ago. I was pleased with the range of features seen but less happy with the amount of detail. The orographic cloud over Olympus Mons was very prominent, with

further clouds lining the limb. A strange blurred extension of the white NPC into Lemuria. Blue haze over Aethiopia and Aetheria, also seen towards the south polar region. Best Wishes,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100217/PGb17Feb10.jpg>  
**Peter GARBETT** (ピーター・ガーベット Sharnbrook 英)

●.....*Subject: Mars Image - February 19, 2010*  
*Received: Sun 21 Feb 2010 10:03:02 JST*

Gentlemen, Attached is my Mars image from February 19. Regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100219/PGc19Feb10.jpg>  
**Peter GORCZYNSKI** (ピーター・ゴルチンスキ CT 美)

●.....*Subject: Mars 2-20-10*  
*Received: Sun 21 Feb 2010 23:42:43 JST*

Here is an image taken from Houston Texas February 20th 2010 at 3:55 UT. Average seeing with good transparency.

<http://www.egrafton.com/m2-20-10.jpg>

**Ed GRAFTON** (エド・グラフトン TX 美)

●.....*Subject: Re: Sorry I am late*  
*Received: Mon 22 Feb 2010 05:09:57 JST*

Hi Masatsugu, Thanks much! The prize for the Royal Observatory Greenwich really means a lot to me! (#368) Greg Mort and his work are very interesting! Thanks so much for sending links to his work.

The El Nino weather has been very poor here in California. Hopefully I'll be able to send you images soon.

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

☆☆☆

シー・エム・オー・フクイ

中島 孝 Nj

★前回報告以降、**牧野 弥一**(431)様よりカンパを頂戴しました。また、**松本 達二郎**(432)様より多額のご寄付を頂きました。有難うございました。不一

★前2月10日号は2月13日に印刷・丁合し、国内は翌日発送しました。藤沢(Mk氏)、横浜(Tsさん)には16日、宗像(As氏)には17日に配達された由です。尚、格安SAL便のホイットビー氏には前々号の#367(1月28日発送)が現地時間(VA)の2月19日に届いた様で、やはり航空便だと考えています。不一

☆ **Kasei-Tsushin CMO** ([http://www.hida.kyoto-u.ac.jp/~cmo/cmo/oaa\\_mars.html](http://www.hida.kyoto-u.ac.jp/~cmo/cmo/oaa_mars.html))

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