

MARS

No. 370

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OBSERVATIONS

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OAA Mars Section

Since the planet Mars is going away, we shall review from this month once a month. This time we treat the observations produced during the period from

16 February 2010 ($\lambda=052^\circ\text{Ls}$) to 15 March 2010 ($\lambda=065^\circ\text{Ls}$)

during which the apparent diameter δ went from 13.3" down to 10.7". The central latitude ϕ was 13°N . The phase angle augmented from 14° to 29° . The apparent declination D was around 23.5°N : At the end of February it was maximal ($D=23^\circ50'\text{N}$). It was difficult to observe by any refractor when the planet is high up, while observation time was longer, and hence it was possible to take about 15 drawings a night every forty minutes.

♂.....火星も遠離ってきたので、今月から月一回の報告に戻ることにする。今回は16Februaryから15March迄の報告をレビューする。季節は $\lambda=052^\circ\text{Ls}$ から $\lambda=065^\circ\text{Ls}$ まで進捗した。視直径 δ は13.3"から10.7"に落ちた。中央緯度 ϕ は 13°N 辺りであった。位相角は 14° から 29° に増している。視赤緯 D は 23.5°N の辺りだが、二月の月末には $23^\circ50'\text{N}$ で最高になった。屈折では観測しづらいのだが、観測時間が長いので、40分間隔で一晩15枚のスケッチが取れることもあった。

♂..... This time we received the observations as follows: 今回拝受の報告は次の通りである。

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

21 Sets of RGB + 21 IR Images (21, ~28 February; 3, 5, 8, 13, 14 March 2010)
36cm SCT @f/36, 55 with a DMK21AU04

AMADORI, Vittorio ヴィットリオ・アマドリ (VAm) イタリア Soiano del Lago, Italia

5 Sets of RGB + 1 IR Images (24 February; 12, 14 March 2010) 27cm speculum with a Vesta Pro

ANDERSON, David デヴィッド・アンダーソン (DAAd) 南カロライナ SC, USA

1 Colour + 2 R + 1B Images (19, 21 February 2010) 40cm speculum @f/48, 66 with a ToUcam 740

AZORÍN ALBETO, Luis Miguel

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

2 Colour Images (15 March 2010) 15cm Maksutov-Cassegrain @f/27 with a DMK21AU04

BEISH, Jeffrey D ジェフ・ビーシュ (JBs) フロリダ Lake Placid, FL, USA

2 Drawings (8, 10 March 2010) 280, 490×41cm F/6.9 speculum

BOSMAN, Richard リシャルト・ボズマン (RBs) オランダ Enschede, Nederland

1 Colour Image (1 March 2010) 28cm SCT

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 (4 March 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
 5 Sets of *LRGB* Images (16, 25, 28 February; 4 March 2010) 36cm SCT @f/36 with a Lu-075M
- GARBETT, Peter J** **ピーター・ガーベット (PGb)** 英国 Sharnbrook, Bfd, UK
 1 Set of *RGB* + 1 *Colour* Images (17, 20 February 2010) 36cm SCT @f/45 with a SKYnyx 2-0 M
- GERSTHEIMER, Ralf** **ラルフ・ゲルシュトハイマー (RGh)** ドイツ Habichitswald, Deutschland
 13 Sets of *RGB* + 12 *IR* Images (16, 18, 20 February; 3, 4, 7, 9, ~11 March 2010)
 32cm speculum @f/27,43 with a DMK21AF04
- GHOMIZADEH, Sadegh** **サデグ・ゴミザデ (SGh)** テヘラン Tehran, Iran
 23 *Colour* + 3 *R* + 8 *B* Images (17, 18, 24, 28 February; 2, 3, 5, 7, 10, ~ 13, 15 March 2010)
 28cm SCT @f/37 with a DMK21AU04.AS
- GORCZYNSKI, Peter** **ピート・ゴルチンスキー (PGc)** コネチカット Oxford, CT, USA
 8 Sets of *LRGB* + 7 *IR* Images (19, 21, 22 February; 1, 2, 6, 7, 10 March 2010)
 36cm SCT @f/34 with a DMK21AF04
- GRAFTON, Edward A** **エド・グラフトン (EGf)** テキサス Houston, TX, USA
 1 Set of *LRGB* Images (20 February 2010) 36cm SCT @f/39 with an ST402
- HILL, Richard** **リック・ヒル (RHl)** アリゾナ Tucson, AZ, USA
 1 *Colour* Image (3 March 2010) 36cm SCT with a SPC900NC
- KIDD, Simon D** **サイモン・キッド (SKd)** 英国 Welwyn, Herts, UK
 3 *Colour* Images (17, 20 February; 1⁺ March 2010)
 36cm SCT @f/40, 25cm speculum⁺ @f/56 with a SKYnyx cam
- KINGSLEY, Bruce A** **ブルース・キングスレイ (BKn)** 英国 Maidenhead, Brk, UK
 4 Sets of *RGB* Images (20/21 February; 2, 4 March 2010) 35cm SCT @f/40 with a SKYnyx2-0
- KOHZAKI, Ichiro** **神崎 一郎 (Kz)** 東久留米 Higashi-Kurumé, Tokyo, Japan
 15 Drawings (19, 20, 22, ~24 February; 3, 8, 10 March 2010) 240, 300, 340×20cm speculum
- KUMAMORI, Teruaki** **熊森 照明 (Km)** 堺 Sakai, Osaka, Japan
 8 Sets of *Colour* Images (16, 18, 20, 21, 23, 24, 28 February; 14 March 2010)
 20cm Dall-Kirkham @f/70 with a DMK21AF04/DFK21AF04
- LAWRENCE, Pete** **ピート・ローレンス (PLw)** 英国 Selsey, WS, UK
 1 Set of *RGB* Images (19 February 2010) 36cm SCT @f/67 with a SKYnyx2-0M
- LEWIS, Martin R** **マーチン・ルウイス (MLw)** 英国 St. Albans, Hertfordshire, UK
 6 *Colour* Images (17, 21 February; 1, 2, 5 March 2010)
 22cm speculum @f/46 with a DMK21AF04.AS
- LORENZ, Joachim** **ヨアヒム・ローレンツ (JLr)** ドイツ Hormersdorf, Germany
 1 Set of *RGB* Images (24 February 2010) 30cm speculum @f/30 with a DMK21BF04
- MAKSYMOWICZ, Stanislas**
スタニスラス・マクシモヴィツ (SMk) フランス Ecquevilly, France
 3 Sets of Drawings (19 February; 5, 11^s March 2010)
 165~400×15cm refractor, 210, 270×10cm refractor^s
- MELILLO, Frank J** **フランク・メリッロ (FMl)** ニューヨーク Holtsville, NY, USA
 9 *Colour* Images (20, 22 February; 1, 6, 9, 10 March 2010) 25cm SCT with a ToUcam pro II
- MINAMI, Masatsugu** **南 政次 (Mn)** 福井 Fukui*, Fukui, Japan
 81 Drawings (17, 21, 23, 24, 28 February; 3, 11, 13, 14 March 2010)
 340, 400, 600×20cm Goto 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
 9 Sets of *RGB* Images (17, 23, 24, 28 February; 3, 12, 14 March 2010)

31cm SCT with a DMK21AF04

MORITA, Yukio 森田 行雄 (Mo) 廿日市 Hatsuka-ichi, Hiroshima, Japan27 Sets of RGB + 27 LRGB Colour + 27 L Images (19, ~21, 23, 24, 28 February 2010)
25cm speculum @f/75 with a Lu-075M**MURAKAMI, Masami 村上 昌己 (Mk)** 藤沢 Fujisawa, Kanagawa, Japan

14 Drawings (21, 23, 24, 28 February; 11 March 2010) 320, 400×20cm F/8 Saheki speculum

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

41 Drawings (21, 23, 24 February; 11, 13, 14 March 2010) 340, 400×20cm Goto ED refractor*

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

3 Sets of RGB Images (1, 15, March 2010) 25cm Dall-Kirkham @f/53 with a SKYnyx 2-0M

PARKER, Timothy J ティム・パーカー (TPk) カリフォルニア LA, CA, USA3 Colour Images (17, 18^{s1} February; 1^{s2} March 2010)
20cm SCT, 15cm spec^{s1}, 32cm Cassegrain^{s2} with a Flear Firewire camera**PEACH, Damian A デミアン・ピーチ (DPc)**

英国 High Wycombe, Bucks, UK→Maidenhead, Berkshire, UK

22 Sets of RGB Images (17, 20/21, 26 February; 1, 2, 4, ~7, 11, 14, 15 March 2010)

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

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

1 Set of RGB + 2 Colour + 1 IR + 1 B Images (16 February 2010)

35cm Cassegrain @f/29 with a SKYnyx 2-0

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

2 Sets of RGB Images (19 February; 4 March 2010) 28cm SCT @ f/57 with a SKYnyx 2-0M

SMET, Kris クリス・スмет (KSm) ベルギー Bornem, Belgium3 Colour Drawings (17 February; 1[†], 7[†] March 2010)280×20cm Dobsonian, 300, 540×30cm Dobsonian[†]**TATUM, Randy ランディ・テータム (RTm)** ヴァージニア Henrico, VA, USA

2 Colour Images (22 February; 7 March 2010) 25cm speculum with a ToUcam Pro

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

1 Set of IRGB Images (4 March 2010) 36cm SCT @f/44 with a SKYnyx 2-0

WARELL, Johan ヨハン・ヴァレル (JWr) スウェーデン Vänge, SWEDEN

1 Set of RGB Images (6 March 2010) 25cm SCT @f/24 with a ToUcam pro III

WESLEY, Anthony アンソニー・ウエズレイ (AWs) オーストラリア NSW, Australia

2 Colour Images (2, 3 March 2010) 37cm speculum with a Dragonfly2

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

♂.....A) **Hellas and Argyre**: According to a description in CMO #353, Hellas is in the growth period in brightness, and in contrast to the activity in the eastern hemisphere (Hellas), the western hemisphere (Argyre) is also another concern. If we compare Hellas on the images of FLANAGAN (WFl) on 16 Feb ($\lambda=052^\circ\text{Ls}$) at $\omega=313^\circ\text{W}$ with Hellas on AKUTSU (Ak)'s images on 26 Feb ($\lambda=057^\circ\text{Ls}$) at $\omega=313^\circ\text{W}$, there looks no definite difference yet: The shape of Hellas is clear but just a haze covers. We first note **Hellas is still dark in the morning**: See eg SMET (KSm)'s drawing on 17 Feb ($\lambda=053^\circ\text{Ls}$) at $\omega=263^\circ\text{W}$ or MORALES RIVERA (EMr)'s images at $\omega=269^\circ\text{W}$ on the day, or the following: GORCZYNSKI (PGc)'s on 19 Feb ($\lambda=054^\circ\text{Ls}$) at $\omega=266^\circ\text{W}$, GRAFTON (EGf)'s on 20 Feb ($\lambda=054^\circ\text{Ls}$) at $\omega=272^\circ\text{W}$. On the other hand, on the day, though it is located near the CM, on the images of KUMAMORI (Km) at $\omega=033^\circ\text{W}$ and KOHZAKI (Kz)'s drawings at $\omega=040^\circ\text{W}\sim 059^\circ\text{W}$ Argyre is quite evident. Already on 17 Feb ($\lambda=053^\circ\text{Ls}$) at $\omega=042^\circ\text{W}$

one of us (*Mn*) saw a bright core in Argyre. Hellas was unclear on the other hand on ANDERSON (*DAd*)'s images on 21 Feb ($\lambda=055^\circ\text{Ls}$) at $\omega=255^\circ\text{W}$ and on *PGC*'s at $\omega=270^\circ\text{W}$; and on TATUM (*RTm*)'s image on 22 Feb ($\lambda=055^\circ\text{Ls}$) at $\omega=237^\circ\text{W}$, and *EMr*'s on the following day at $\omega=237^\circ\text{W}$ the morning Hellas cannot be identified. On the other hand Argyre on 21 Feb ($\lambda=055^\circ\text{Ls}$), on the images of MORITA (*Mo*), *Km* and *Ak* looks quite hazy respectively at $\omega=004^\circ\text{W}\sim 053^\circ\text{W}$, $\omega=017^\circ\text{W}$, and $\omega=021^\circ\text{W}$, 041°W . Even on 3 Mar ($\lambda=059^\circ\text{Ls}$), WESLEY (*AWs*)'s image at $\omega=272^\circ\text{W}$ shows the morning Hellas in a shape but very shadowy. On the day *Mn* also observed visually at $\omega=262^\circ\text{W}$, 272°W and found it was shadowy. On 5 Mar ($\lambda=060^\circ\text{Ls}$) *Ak* observed it dark at $\omega=273^\circ\text{W}$, and also it was so on his images on 8 Mar ($\lambda=061^\circ\text{Ls}$) at $\omega=249^\circ\text{W}$. Even on the image of AMADORI (*VAm*)'s on 14 Mar ($\lambda=064^\circ\text{Ls}$) at $\omega=287^\circ\text{W}$ (rather near the CM) Hellas is of mean appearance. On 15 Mar ($\lambda=065^\circ\text{Ls}$) PEACH (*DPc*) produced images at $\omega=277^\circ\text{W}$, 287°W but Hellas remains still shadowy in the morning. How about then *Hellas near the CM*? *DAd*'s image on 19 Feb ($\lambda=054^\circ\text{Ls}$) at $\omega=285^\circ\text{W(R)}$ shows barely the shape. *Ak*'s images on 27 Feb ($\lambda=057^\circ\text{Ls}$) at $\omega=305^\circ\text{W}$ (otherwise at $\omega=316^\circ\text{W}$, 325°W) show some hazy aspect. On 28 Feb ($\lambda=058^\circ\text{Ls}$), it was rather hazy on *Mo*'s at $\omega=296^\circ\text{W}$, and it just made a shape on *Km*'s and *Ak*'s at $\omega=302^\circ\text{W}$ and $\omega=319^\circ\text{W}$ respectively, whilst another of us (*Mk*) felt a whitish tint at the southern part at $\omega=282^\circ\text{W}$. Argyre was shot on 1 Mar ($\lambda=058^\circ\text{Ls}$) by KIDD (*SKd*) at $\omega=072^\circ\text{W}$, and by *DPc* at $\omega=063^\circ\text{W}$, 068°W , 072°W where Argyre looked hazy. On 2 Mar ($\lambda=059^\circ\text{Ls}$), *AWs* showed that Hellas at $\omega=294^\circ\text{W}$ was covered by a haze at the upper part while the northern part shows the ground. Argyre is hazy on *DPc*'s at $\omega=059^\circ\text{W}$, as well as on LEWIS (*MLw*)'s at $\omega=068^\circ\text{W}$. On 3 Mar ($\lambda=059^\circ\text{Ls}$) *Ak* showed the shape of Hellas at $\omega=284^\circ\text{W}$; the lower part may be the ground. *Kz* also watched the Hellas near the CM at $\omega=311^\circ\text{W}$. The whitish tip of Hellas on GERSTHEIMER (*R Gh*)'s image on 9 Mar ($\lambda=062^\circ\text{Ls}$) at $\omega=310^\circ\text{W}$ looks located near the southern polar region, and *DPc*'s images on 14 Mar ($\lambda=064^\circ\text{Ls}$) at $\omega=305^\circ\text{W}\sim 321^\circ\text{W}$ show it more detailed. As to Argyre, on 4 Mar ($\lambda=060^\circ\text{Ls}$) looks hazy on SHARP (*ISp*)'s at $\omega=059^\circ\text{W}$, TYLER (*DTy*)'s at $\omega=062^\circ\text{W}$ (066°W), and FERNÁNDEZ GÓMEZ (*FFn*)'s at $\omega=064^\circ\text{W}$, but *DPc*'s images on 5 Mar ($\lambda=060^\circ\text{Ls}$) at $\omega=030^\circ\text{W}$ suggest that the core has been weakened. However BEISH (*JBs*) visually caught a core on 10 Mar ($\lambda=062^\circ\text{Ls}$) at $\omega=033^\circ\text{W}$. On the other hand, Hellas looked slightly whitish on *R Gh*'s on 11 Mar ($\lambda=062^\circ\text{Ls}$) at $\omega=295^\circ\text{W}$, while it is weak on AZORÍN ALBETO (*LAz*)'s on 15 Mar ($\lambda=064^\circ\text{Ls}$) at $\omega=299^\circ\text{W}$. *Evening Hellas* on Tim PARKER (*TPk*)'s on 17, 18 Feb ($\lambda=053^\circ\text{Ls}$) at $\omega=339^\circ\text{W}$, 324°W respectively looks hazy. On 24 Feb ($\lambda=056^\circ\text{Ls}$) *Ak*'s at $\omega=352^\circ\text{W}$, and *Km*'s at $\omega=354^\circ\text{W}$ do not show brightness in the evening. *Ak*'s images on 25 Feb ($\lambda=056^\circ\text{Ls}$) at $\omega=324^\circ\text{W}$ suggest aground and less whitish. On the other hand, visually NAKAJIMA (*Nj*) and *Mn* watched on 23 Feb ($\lambda=056^\circ\text{Ls}$) at $\omega=319^\circ\text{W}$ (*Mn*), 324°W (*Nj*), 329°W (*Mn*) etc and felt a slight whitish brightness (chased until around $\omega=348^\circ\text{W}$). On 24 Feb ($\lambda=056^\circ\text{Ls}$) also observed from before sunset and Hellas was light at $\omega=301^\circ\text{W}$ at the upper part, and at $\omega=310^\circ\text{W}$ (the planet was in a beautiful colour just after sunset) Hellas looked grey whitish. We chased until $\omega=349^\circ\text{W}$ where the whiteness remained. On 7 Mar ($\lambda=061^\circ\text{Ls}$) GHOMIZADEH (*SGh*) observed at $\omega=329^\circ\text{W}$, *R Gh* at $\omega=332^\circ\text{W}$ where Hellas makes a shape but not bright. On 11 Mar ($\lambda=063^\circ\text{Ls}$) *DPc*'s images at $\omega=347^\circ\text{W}\sim 356^\circ\text{W}$ do not show any white Hellas at the limb side, but B suggests a white trace. On the day MAKSYMOWICZ (*SMk*) however depicted Hellas lighter at $\omega=321^\circ\text{W}$ (*Wtr*#11). Incidentally *SGh* showed on 11 Mar ($\lambda=063^\circ\text{Ls}$) three images; one in the morning, another at noon and the third in the evening (at $\omega=272^\circ\text{W}$, 292°W , 332°W). **B) Evening Mist, Morning Mist, and the Mist at the Equatorial Band:** Here we treat a general kind of mists except for the Libya mist (as to which see below). On 17 Feb ($\lambda=053^\circ\text{Ls}$) *Mn* watched clearly at $\omega=071^\circ\text{W}$, 081°W , 091°W , 100°W an *evening mist* which were to invade Chryse. On 19 Feb ($\lambda=054^\circ\text{Ls}$) *Kz* observed the evening mist at $\omega=048^\circ\text{W}$, 058°W , 068°W , and *Mo* took it at $\omega=058^\circ\text{W}$, 064°W , 069°W , 074°W . On 21

Feb ($\lambda=055^\circ\text{Ls}$), *Nj* and *Mn* observed the evening mist at $\omega=075^\circ\text{W}$ (*Mn*), 085°W (*Mn*), 090°W (*Nj*), 094°W (*Mn*), 099°W (*Nj*) etc. *VAm* took the Xanthe evening mist on 24 Feb ($\lambda=056^\circ\text{Ls}$) at $\omega=117^\circ\text{W}$. On the day LORENZ (*JLr*) showed a Tharsis evening mist at $\omega=143^\circ\text{W}$. Xanthe evening mist is quite evident on *DPc*'s images on 26 Feb ($\lambda=057^\circ\text{Ls}$) at $\omega=101^\circ\text{W}$, 105°W . On 1 Mar ($\lambda=058^\circ\text{Ls}$) Don PARKER (*DPk*) described a very vast bright evening haze at $\omega=219^\circ\text{W}$, 225°W which looks to extend to Elysium and hence it suggests a presence of a mist along the equatorial band. On 3 Mar ($\lambda=059^\circ\text{Ls}$) *EMr* showed the Xanthe evening mist at $\omega=121^\circ\text{W}$, 128°W . The *equatorial band mist (ebm)* is still in a weak stage, while the images by *EMr* on 17 Feb ($\lambda=053^\circ\text{Ls}$) at $\omega=269^\circ\text{W}$ suggests an ebm in B since Libya is light near the CM. On 18 Feb ($\lambda=053^\circ\text{Ls}$) at $\omega=111^\circ\text{W}$, *SGh* interestingly showed a series of mists which started from the Xanthe evening side and down to Alba and then upto the morning mist (which reminds us of the images by *DPk* on 31 Jan 2010 ($\lambda=045^\circ\text{Ls}$) at $\omega=100^\circ\text{W}$). *PGc*'s image on 19 Feb ($\lambda=054^\circ\text{Ls}$) at $\omega=266^\circ\text{W}$ also suggests a faint ebm, but depends on the description at Libya near the CM. This is similar to *EGf*'s case on 20 Feb ($\lambda=054^\circ\text{Ls}$) at $\omega=271^\circ\text{W}$ (see B). On the same day, *Km*'s images at $\omega=033^\circ\text{W}$ also suggest though no B image exists. On the day, *Mo* showed more explicitly on his series of images at $\omega=017^\circ\text{W}\sim 059^\circ\text{W}$ (6 sets) an ebm at $\omega=024^\circ\text{W}$, 034°W , 044°W , 054°W , 059°W which includes the Chryse near the CM (see B images). On 21 Feb ($\lambda=055^\circ\text{Ls}$) *Ak* showed it faintly at $\omega=021^\circ\text{W}$ (B), 041°W (B). On the same day, *Mo* again proved in a series the existence of the ebm at $\omega=029^\circ\text{W}$, 034°W , 044°W , 053°W . On 23 Feb ($\lambda=056^\circ\text{Ls}$) *Mn* checked it to exist at $\omega=018^\circ\text{W}$, 027°W , 037°W , 047°W , 057°W , and *Nj* and *Mn* at $\omega=071^\circ\text{W}$ and $\omega=076^\circ\text{W}$ respectively: We felt first it was because Chryse was ground lit, but on *Mo*'s images on 20 Feb at $\omega=054^\circ\text{W}$ et al, the ebm exists near the CM in RGB as well as in LRGB, and so it is very possible that it is made of lower mist. On 24 Feb ($\lambda=056^\circ\text{Ls}$) *Mn* observed at $\omega=009^\circ\text{W}$, 019°W , 028°W , 038°W , 048°W . On 28 Feb ($\lambda=058^\circ\text{Ls}$) *Mo* shot early at $\omega=296^\circ\text{W}$ (B) and then *Mn* observed at $\omega=027^\circ\text{W}$, 036°W et al. *SGh* showed it at $\omega=071^\circ\text{W}$. On 3 Mar ($\lambda=059^\circ\text{Ls}$), *Mn* saw the ebm at $\omega=252^\circ\text{W}$, 262°W where Libya was light inside (maybe ground lit). The *morning mist* was taken by *TPk* on 17 Feb ($\lambda=053^\circ\text{Ls}$) at $\omega=339^\circ\text{W}$ which could be connected with Chryse. See also *Km*'s on 20 Feb ($\lambda=054^\circ\text{Ls}$) at $\omega=033^\circ\text{W}$. On 21 Feb ($\lambda=055^\circ\text{Ls}$) at $\omega=011^\circ\text{W}$, 021°W , *Mk* at Fujisawa observed a prominent morning mist at Chryse, and at the same time *Nj* at Fukui observed: *Mn* was late because he was at Osaka in the evening but later chased it at midnight until $\omega=085^\circ\text{W}$ at Fukui. Tharsis morning mist was shot by *Mo* on 19 Feb ($\lambda=054^\circ\text{Ls}$) at $\omega=069^\circ\text{W}$, 074°W , and in the former the darker Tharsis Montes were explicitly depicted. *Mo* looks also to show them on 20 Feb ($\lambda=054^\circ\text{Ls}$) at $\omega=044^\circ\text{W}$. Furthermore *Mo*'s set of images on 21 Feb ($\lambda=055^\circ\text{Ls}$) at $\omega=053^\circ\text{W}$ proved at least Ascræus Mons poked out. *SGh* also showed faintly Tharsis Montes on 28 Feb ($\lambda=058^\circ\text{Ls}$) at $\omega=071^\circ\text{W}$. On 1 Mar ($\lambda=058^\circ\text{Ls}$) *DPc* clearly showed the strong low morning mist as well as Tharsis Montes as dark brownish spots at $\omega=063^\circ\text{W}$, 068°W , 072°W . This reminds us of the HST image on 30 Mar 1997 ($\lambda=097^\circ\text{Ls}$) though the season is somewhat different. On the same day *SKd* showed them at $\omega=072^\circ\text{W}$. BOSMAN (*RBs*)'s images on 1 Mar ($\lambda=058^\circ\text{Ls}$) at $\omega=083^\circ\text{W}$ show the Montes independent of the morning mist. On 2 Mar ($\lambda=059^\circ\text{Ls}$), *DPc* again did at $\omega=059^\circ\text{W}$, *MLw* at $\omega=068^\circ\text{W}$. On 4 Mar ($\lambda=060^\circ\text{Ls}$), *DPc* did at $\omega=047^\circ\text{W}$ (050°W), 060°W , 070°W , and at $\omega=070^\circ\text{W}$ he showed Olympus Mons poking out of the morning mist ($t=24^\circ$). On the same day, *ISp* shot the strong morning mist at $\omega=059^\circ\text{W}$ in which Ascræus Mons and Pavonis Mons are clear. *DTy* also showed them at $\omega=062^\circ\text{W}$ (066°W). Furthermore KINGSLEY (*BKn*) clearly showed the four sets of mountains at $\omega=071^\circ\text{W}$. *MLw*'s image on 5 Mar ($\lambda=060^\circ\text{Ls}$) at $\omega=101^\circ\text{W}$ showed irrespectively the morning mist the four mountains considerably inside the disk. *PGc*'s images also show Montes on 7 Mar ($\lambda=061^\circ\text{Ls}$) at $\omega=094^\circ\text{W}$ though the morning mist is obscure. *RTm* also took the four Montes quite inside on 7 Mar ($\lambda=061^\circ\text{Ls}$) at $\omega=103^\circ\text{W}$. MELILLO (*FMI*)'s image on 10 Mar ($\lambda=062^\circ\text{Ls}$) at

$\omega=114^\circ\text{W}$ may also show at least one of mountains. The morning mist is present still on *EMr*'s images on 14 Mar ($\lambda=064^\circ\text{Ls}$) at $\omega=041^\circ\text{W}$. As to the dark Montes phenomenon see the old CMO (CMO#201(1998), CMO #230 (2000) etc): or click the following: <http://www.hida.kyoto-u.ac.jp/~cmo/cmomn0/97Note03.htm>
<http://www.hida.kyoto-u.ac.jp/~cmo/cmo/note/9907/07.html>

C) Libya Mist: We separately pick out the Libya mist since it is connected with Syrtis Mj. On 22 Feb ($\lambda=055^\circ\text{Ls}$) *Ak* took the sinking Syrtis Mj at the evening limb at $\omega=357^\circ\text{W}$, 007°W : Since his is RGB, Syrtis Mj looks bluish (especially in the former). Also on 23 Feb ($\lambda=056^\circ\text{Ls}$) *Ak* shot at $\omega=351^\circ\text{W}$, 001°W both of which show Syrtis Mj to be bluish. *Mk* chased on the day from $\omega=322^\circ\text{W}$, and saw at $\omega=351^\circ\text{W}$ a bluish slim Syrtis Mj. *Kz* at $\omega=013^\circ\text{W}$ saw the remnant of Libya mist. On the day, at Fukui *Nj* and *Mn* observed at $\omega=319^\circ\text{W}(\text{Mn})$, $324^\circ\text{W}(\text{Nj})$, $329^\circ\text{W}(\text{Mn})$, $334^\circ\text{W}(\text{Nj})$, $339^\circ\text{W}(\text{Mn})$, $344^\circ\text{W}(\text{Nj})$, $348^\circ\text{W}(\text{Mn})$, $353^\circ\text{W}(\text{Nj})$, $358^\circ\text{W}(\text{Mn})$, $003^\circ\text{W}(\text{Nj})$ in which Syrtis Mj later became sky-bluish. As aforementioned, the evening whitish Hellas was as strong as the brightness of Libya mist at $\omega=339^\circ\text{W}$. Unknown how it is related with the Libya mist, according to *Mn*'s observations *Aeria* was quite reddish bright at $\omega=319^\circ\text{W}$, 329°W , 339°W , and this was also pointed by *Mk* at $\omega=331^\circ\text{W}$ on the day. On 24 Feb ($\lambda=056^\circ\text{Ls}$), *Km* showed the greenish Syrtis Mj by a colour image at $\omega=347^\circ\text{W}$ (though his LRGB image, though detailed, destroys the true colour). *Ak* constructed RGB images at $\omega=352^\circ\text{W}$, 001°W where Syrtis Mj is greenish-blue. On 24 Feb, at Fukui *Nj* and *Mn* observed similarly but here omit the could-be complicated description. Just on this day the slim Syrtis Mj did not become sky-bluish. *Mk* at Fujisawa also failed to see the colour, but the Libya mist flowed out westward along the north line of S Sabæus. On the day *Mo* took Syrtis Mj at $\omega=004^\circ\text{W}$, but colourless in RGB. Otherwise *SGh* took on 2 Mar ($\lambda=059^\circ\text{Ls}$) at $\omega=006^\circ\text{W}$, on 5 Mar ($\lambda=060^\circ\text{Ls}$) at $\omega=347^\circ\text{W}$, 357°W , as well *KSm* observed on 7 Mar ($\lambda=061^\circ\text{Ls}$) at $\omega=358^\circ\text{W}$ but there is unknown the relation with the Libya mist. On 7 Mar ($\lambda=061^\circ\text{Ls}$), *KSm* observed at $\omega=358^\circ\text{W}$ and *DPc* made images at $\omega=001^\circ\text{W}$, 005°W , but the evening Syrtis Mj was never bluish (on *DPc*'s the evening mist is not strong). On the other hand, at the morning side *RTm* took an image on 22 Feb ($\lambda=055^\circ\text{Ls}$) at $\omega=237^\circ\text{W}$ where Syrtis Mj looks bluish. Similarly on the day *PGc*'s Syrtis Mj at $\omega=237^\circ\text{W}$ (though L filter is used) shows a slightly bluish tint. Note that there is no matter that should be called the Blue Cloud; it's just because of a complicated reflection of shorter wave length lights. Click the following to see our proposition in CMO #225: <http://www.hida.kyoto-u.ac.jp/~cmo/cmo/note/9901/01.html>

D) Orography of Olympus Mons: As will be mentioned in another article, the orographic clouds at present are halfway from Weak State and Active State, and never in the Very Active Stage. However any ccd image enhances the orography and so Olympus Mons et al are trapped in the afternoon. The state is determined not by the brightness but by the area. So at present the area is not so large. The ccd images which shot the orographic cloud over Olympus Mons are roughly as follows: On 16 Feb ($\lambda=053^\circ\text{Ls}$) *POUPEAU (JPp)*'s at $\omega=189^\circ\text{W}$; on 17 Feb ($\lambda=053^\circ\text{Ls}$) *SGh*'s at $\omega=147^\circ\text{W}$ (considerably inside + Alba); *MLw*'s at $\omega=174^\circ\text{W}$, *DPc*'s at $\omega=191^\circ\text{W}$, 195°W , *GARBETT (Pgb)*'s at $\omega=193^\circ\text{W}$; on 18 Feb ($\lambda=054^\circ\text{Ls}$) *Rgh*'s at $\omega=186^\circ\text{W}$; on 19 Feb ($\lambda=054^\circ\text{Ls}$) *LOWRENCE (PLw)*'s at $\omega=182^\circ\text{W}$, *ISp*'s at $\omega=189^\circ\text{W}$; on 20 Feb ($\lambda=054^\circ\text{Ls}$) *SKd*'s at $\omega=182^\circ\text{W}$, *BKn*'s at $\omega=182^\circ\text{W}$, 205°W , *Pgb*'s at $\omega=185^\circ\text{W}$; on 24 Feb ($\lambda=056^\circ\text{Ls}$) *EMr*'s at $\omega=198^\circ\text{W}$; on 28 Feb ($\lambda=058^\circ\text{Ls}$) *EMr*'s at $\omega=179^\circ\text{W}$, *WFl*'s at $\omega=186^\circ\text{W}$, 196°W ; on 1 Mar ($\lambda=058^\circ\text{Ls}$) *PGc*'s at $\omega=167^\circ\text{W}$; on 2 Mar ($\lambda=058^\circ\text{Ls}$) *PGc*'s at $\omega=173^\circ\text{W}$ etc. Visually *Mn* faintly saw it on 14 Mar ($\lambda=064^\circ\text{Ls}$) at $\omega=170^\circ\text{W}\sim 190^\circ\text{W}$, but it was far from the brilliant state of the cotton-ball like orography. See however *Ak*'s images on the day at $\omega=174^\circ\text{W}$, and *Km*'s at $\omega=164^\circ\text{W}$. **E) Inactivity of Elysium Mons:** According to SMITH and SMITH (see the following article), the orography of Elysium Mons traces the curve similar to the case of Olympus Mons, while the following images prove that the orographic cloud of Elysium Mons

at present is rather inactive: On 17 Feb ($\lambda=053^\circ\text{Ls}$) *EMr*'s at $\omega=269^\circ\text{W}$; on 19 Feb ($\lambda=054^\circ\text{Ls}$) *PGc*'s at $\omega=266^\circ\text{W}$; on 20 Feb ($\lambda=054^\circ\text{Ls}$) *EGf*'s at $\omega=271^\circ\text{W}$ etc. As March came in, on *DPc*'s images on 15 Mar ($\lambda=065^\circ\text{Ls}$) at $\omega=277^\circ\text{W}$, 287°W , the orography is not conspicuous. **F) Alba:** Alba Mons, as stated in CMO #319, it has a peak at around $\lambda=050^\circ\text{Ls}$: However this time it was not paid much attention and the observations are few or very poor. Just *SGh*'s images on 17 Feb ($\lambda=053^\circ\text{Ls}$) at $\omega=147^\circ\text{W}$ show it very clearly. As to the activity of Alba, cf CMO #179 (25 Sept 1996): <http://www.hida.kyoto-u.ac.jp/~cmo/cmomn0/95Note13.htm>

G) Near the North Polar Cap: The npc is quite thawing, but its apparent size is different seen from different angles. It is never roundish. A small protrusion from the perimeter was observed for instance as follows: For instance on 17 Feb ($\lambda=053^\circ\text{Ls}$) *MLw* described it at $\omega=174^\circ\text{W}$, and *DPc* at $\omega=191^\circ\text{W}\sim 195^\circ\text{W}$, *SKd* at $\omega=223^\circ\text{W}$; on 19 Feb ($\lambda=054^\circ\text{Ls}$) *PLw* at $\omega=182^\circ\text{W}$, *ISp* at $\omega=189^\circ\text{W}$ and so on and *WFl* on 28 Feb ($\lambda=058^\circ\text{Ls}$) at $\omega=186^\circ\text{W}$, and so on. The npc near M Acidalium is also not uniform: some irregularities are seen on the images by *Mo* on 19 Feb ($\lambda=054^\circ\text{Ls}$) at $\omega=058^\circ\text{W}\sim 074^\circ\text{W}$, by *Km* on 20 Feb ($\lambda=054^\circ\text{Ls}$) at $\omega=033^\circ\text{W}$, and also *Kz* visually described same irregularity at $\omega=040^\circ\text{W}\sim 049^\circ\text{W}$. See also *Km*'s on 21 Feb ($\lambda=055^\circ\text{Ls}$) at $\omega=017^\circ\text{W}$. *DPc*'s images on 1 Mar ($\lambda=058^\circ\text{Ls}$) at $\omega=063^\circ\text{W}$ and *SKd*'s on the day at $\omega=072^\circ\text{W}$ also show another kind of irregularity. Perhaps there must have been a battle between the bottom of M Acidalium and the npc, though it seems there must have been decreased the dust blows at other parts. *Km*'s images on 21 Feb ($\lambda=055^\circ\text{Ls}$) at $\omega=017^\circ\text{W}$ suggest that Iaxartes connects M Acidalium with the npc: However already as seen on *Mo*'s images on 23 Feb ($\lambda=056^\circ\text{Ls}$) at $\omega=012^\circ\text{W}$, the area turned out to be not so simple. On 3 Mar ($\lambda=059^\circ\text{Ls}$) at $\omega=047^\circ\text{W}$, *RGh* showed that it was further complex (an activity of a white cloud?). *DPc*'s images on 5 Mar ($\lambda=060^\circ\text{Ls}$) at $\omega=030^\circ\text{W}$, and on 6 Mar ($\lambda=061^\circ\text{Ls}$) at $\omega=033^\circ\text{W}$, 038°W prove that the NW part of M Acidalium shows a heterodoxical brownish tint which may be related with Iaxartes: There must have been a disturbance of dust or its precipitation. See also *PGc*'s on 10 Mar ($\lambda=062^\circ\text{Ls}$) at $\omega=062^\circ\text{W}$. Furthermore *DPk*'s images on 15 Mar ($\lambda=064^\circ\text{Ls}$) at $\omega=017^\circ\text{W}$ show a vast spread of a yellow-brownish tint distribution from this area to the eastern perimeter of the npc.

Henceforward, in the north polar region it is possible for the white cyclones to occur in a large scale, and as the npc further recedes the surroundings will be more complicated with several fragments. Click <http://www.hida.kyoto-u.ac.jp/~cmo/cmomn0/97Note04.htm>

♂.....**A)ヘッラスとアルギュレ** : CMO#353の「浅信」(浅は浅田正氏の浅)を読むと判るように、現在ヘッラスの成長期に入っているし、南極地方は東半球(ヘッラス)に対して西半球(アルギュレ)の活動も気になるところである。16Feb($\lambda=052^\circ\text{Ls}$) $\omega=313^\circ\text{W}$ のフラナガン(WFl)氏の画像と26Feb($\lambda=057^\circ\text{Ls}$) $\omega=313^\circ\text{W}$ の阿久津(Ak)氏のヘッラスを比較すると、Ak氏のはピントが甘い、未ださしたる変化は無いように見える。ヘッラスの形状は判るが、軽い靄が見られるというところか。ヘッラスは未だ朝方では暗い：**朝方のヘッラス**としては17Feb($\lambda=053^\circ\text{Ls}$)のスメト(KSm)氏の $\omega=263^\circ\text{W}$ やモラレス(EMr)氏の $\omega=269^\circ\text{W}$ 、19Feb($\lambda=054^\circ\text{Ls}$)のゴルチンスキイ(PGc)氏の $\omega=266^\circ\text{W}$ 、20Feb($\lambda=054^\circ\text{Ls}$)のグラフトン(EGf)氏の $\omega=271^\circ\text{W}$ では形は分かるものの暗い。一方、同日アルギュレの靄は中央にある所為もあるが、熊森(Km)氏の $\omega=033^\circ\text{W}$ や神崎(Kz)氏の $\omega=040^\circ\text{W}\sim 059^\circ\text{W}$ では明瞭に見えている。既に17Feb($\lambda=053^\circ\text{Ls}$) $\omega=042^\circ\text{W}$ 等で筆者の一人(Mn)はアルギュレのコアを見ている。21Feb($\lambda=055^\circ\text{Ls}$)のアンダーソン(DAd)氏の $\omega=255^\circ\text{W}$ やPGc氏の $\omega=270^\circ\text{W}$ ではヘッラスは見えない方であり、22Feb($\lambda=055^\circ\text{Ls}$)のテータム(RTm)氏の $\omega=237^\circ\text{W}$ 、翌日のEMr氏の $\omega=237^\circ\text{W}$ では朝方のヘッラスは識別不可能である。一方の21Feb($\lambda=055^\circ\text{Ls}$)のアルギュレは森田(Mo)氏の $\omega=004^\circ\text{W}\sim 053^\circ\text{W}$ 、Km氏の $\omega=017^\circ\text{W}$ 、Ak氏の $\omega=021^\circ\text{W}$ 、 041°W では靄っぽい。3Mar($\lambda=059^\circ\text{Ls}$)のウェズレイ(AWs)氏の $\omega=272^\circ\text{W}$ で、朝方のヘッラスは形は判るが暗い。同日のMnの眼視観測でも $\omega=262^\circ\text{W}$ 、 272°W では朝方のヘッラスは暗い。5Mar($\lambda=060^\circ\text{Ls}$)に至ってもAk

氏の $\omega=273^\circ\text{W}$ では暗く、8Mar($\lambda=061^\circ\text{Ls}$)のAk氏の $\omega=249^\circ\text{W}$ でも暗い。14Mar($\lambda=064^\circ\text{Ls}$)のアマドリ(VAm)氏の中央寄りの $\omega=287^\circ\text{W}$ でもヘッラスの偉容はない。15Mar($\lambda=065^\circ\text{Ls}$)にはピーチ(DPc)氏が $\omega=277^\circ\text{W}$ 、 287°W で撮ったがまだ暗い儘である。では**中央に来たヘッラス**はどうかというと、DAd氏の19Feb($\lambda=054^\circ\text{Ls}$) $\omega=285^\circ\text{W}$ (R)では形が判る程度、27Feb($\lambda=057^\circ\text{Ls}$)のAk氏の $\omega=305^\circ\text{W}$ (他に $\omega=316^\circ\text{W}$ 、 325°W)でもやや白味のある感じというところ。28Feb($\lambda=058^\circ\text{Ls}$)のMo氏の $\omega=296^\circ\text{W}$ では靄っぽく、Km氏の $\omega=302^\circ\text{W}$ 、Ak氏の $\omega=319^\circ\text{W}$ でも形が判る程度である。但し、我々のもう一人(Mk)は同日 $\omega=282^\circ\text{W}$ で南部に白味を感じた。アルギュレは1Mar($\lambda=058^\circ\text{Ls}$)にキッド(SKd)氏が $\omega=072^\circ\text{W}$ で、DPc氏が $\omega=063^\circ\text{W}$ 、 068°W 、 072°W で靄っぽく出している。2Mar($\lambda=059^\circ\text{Ls}$)のAWs氏の $\omega=294^\circ\text{W}$ ではヘッラスの上半面が靄、下半面は地肌という感じである。アルギュレはDPc氏の $\omega=059^\circ\text{W}$ 、ルウイス(MLw)氏の $\omega=068^\circ\text{W}$ で靄っぽい。3Mar($\lambda=059^\circ\text{Ls}$)にはAk氏の $\omega=284^\circ\text{W}$ のヘッラスで形が出ている。下半分は地肌か。Kz氏も $\omega=311^\circ\text{W}$ で中央のヘッラスを見ている様子である。ゲルシュトハイマー(RGh)氏の9Mar($\lambda=062^\circ\text{Ls}$) $\omega=310^\circ\text{W}$ では白い部分が極に近い様な気がするし、DPc氏の14Mar($\lambda=064^\circ\text{Ls}$) $\omega=305^\circ\text{W}\sim 321^\circ\text{W}$ では更に詳しく様子が分かる(四セットだがBは三枚)。アルギュレは4Mar($\lambda=060^\circ\text{Ls}$)のシャープ(ISp)氏の $\omega=059^\circ\text{W}$ 、タイラー(DTy)氏の $\omega=062^\circ\text{W}$ (066°W)、フェルナンデス(FFn)氏の $\omega=064^\circ\text{W}$ でも靄って居るが、DPc氏の5Mar($\lambda=060^\circ\text{Ls}$)の $\omega=030^\circ\text{W}$ を見ると一頃よりコアが無くなって弱くなっている(ϕ の所爲かもしれないが)。但し、ビーシュ(JBs)氏は10Mar($\lambda=062^\circ\text{Ls}$) $\omega=033^\circ\text{W}$ でアルギュレのコアを肉眼で捉えている。一方のヘッラスは11Mar($\lambda=062^\circ\text{Ls}$)のRGh氏の $\omega=295^\circ\text{W}$ ではやや白くなっていると思われるが、アソリン(LAz)氏の15Mar($\lambda=064^\circ\text{Ls}$) $\omega=299^\circ\text{W}$ でも弱い。**夕方のヘッラス**は17、18Feb($\lambda=053^\circ\text{Ls}$)のティム・パーカー(TPk)氏の夫々 $\omega=339^\circ\text{W}$ 、 324°W で靄が出ている感じである。24Feb($\lambda=056^\circ\text{Ls}$)のAk氏の $\omega=352^\circ\text{W}$ 、Km氏の $\omega=345^\circ\text{W}$ では夕方のヘッラスに明るさがない。更にAk氏の25Feb($\lambda=056^\circ\text{Ls}$) $\omega=324^\circ\text{W}$ では少し地肌が出ている感じで、白味がない。一方眼視では23Feb($\lambda=056^\circ\text{Ls}$)に中島(Nj)氏とMnが $\omega=319^\circ\text{W}$ (Mn)、 324°W (Nj)、 329°W (Mn)等で観測し、夕方のヘッラスに稍明るい白味を感じて居る。 $\omega=348^\circ\text{W}$ ぐらいまで追えた。24Feb($\lambda=056^\circ\text{Ls}$)にも日没前から観測し $\omega=301^\circ\text{W}$ では上部が明るく、像の落ち着いた $\omega=310^\circ\text{W}$ では色彩が誠に綺麗で、ヘッラスは白灰色に見えた。 $\omega=349^\circ\text{W}$ まで追っているが、白さは残っていた。7Mar($\lambda=061^\circ\text{Ls}$)にはゴミザデ(SGh)氏が $\omega=329^\circ\text{W}$ で、RGh氏が $\omega=332^\circ\text{W}$ でヘッラスの形を出しているが未だ^{さほど}然程明るくはない。但し、11Mar($\lambda=063^\circ\text{Ls}$)のDPc氏の $\omega=347^\circ\text{W}\sim 356^\circ\text{W}$ では白くはないが、Bから見てもう少し白くても好きそうであるし、同日のマクシモビッツ(SMk)氏の眼視観測では $\omega=321^\circ\text{W}$ (Wr#11)ではかなり明るく描かれている。尚、SGh氏の11Mar($\lambda=063^\circ\text{Ls}$)に朝昼夕のヘッラスを取り分けた像が得られている($\omega=272^\circ\text{W}$ 、 292°W 、 332°W)。**B)夕霧と朝霧、赤道帯霧**：ここではリビュア霧に伴う夕霧朝霧の他の一般的な夕霧朝霧と赤道帯霧を扱う。17Feb($\lambda=053^\circ\text{Ls}$)にMnは $\omega=071^\circ\text{W}$ 、 081°W 、 091°W 、 100°W でクリュセに入り込む明るい**夕霧**を見ている。19Feb($\lambda=054^\circ\text{Ls}$)にはKz氏が $\omega=048^\circ\text{W}$ 、 058°W 、 068°W で夕霧を観察し、Mo氏が $\omega=058^\circ\text{W}$ 、 064°W 、 069°W 、 074°W で写し込んでいる。21Feb($\lambda=055^\circ\text{Ls}$)にはNj氏とMnが $\omega=075^\circ\text{W}$ (Mn)、 085°W (Mn)、 090°W (Nj)、 094°W (Mn)、 099°W (Nj)等で夕霧を見ている。VAm氏が24Feb($\lambda=056^\circ\text{Ls}$) $\omega=117^\circ\text{W}$ でクサンテの夕霧を写し出した。同日タルシスの夕方ではローレンツ(JLr)氏の $\omega=143^\circ\text{W}$ に頭れている。クサンテの夕霧はDPc氏の26Feb($\lambda=057^\circ\text{Ls}$) $\omega=101^\circ\text{W}$ 、 105°W に明白。1Mar($\lambda=058^\circ\text{Ls}$)にはドン・パーカー(DPk)氏が $\omega=219^\circ\text{W}$ 、 225°W で明るい夕靄を描写したが、エリウシウムの方にも延びているので赤道帯霧にも見える。3Mar($\lambda=059^\circ\text{Ls}$)にはEMr氏が $\omega=121^\circ\text{W}$ 、 128°W でクサンテ夕霧を描いている。**赤道帯霧**は未だ弱い状態だが、EMr氏の17Feb($\lambda=053^\circ\text{Ls}$) $\omega=269^\circ\text{W}$ にはリビュアが中央で明るいためBでは赤道帯霧のように見える。18Feb($\lambda=053^\circ\text{Ls}$)にはSGh氏が $\omega=111^\circ\text{W}$ でクサンテの夕霧からアルバに下がり朝霧に連なる霧の流れを描き出している(以前にDPk氏も31Jan2010($\lambda=045^\circ\text{Ls}$) $\omega=100^\circ\text{W}$)で描いている)。19Feb($\lambda=054^\circ\text{Ls}$) $\omega=266^\circ\text{W}$ でのPGc氏の像にも幽かに見えるが、中央のリビュアに鍵がある。20Feb($\lambda=054^\circ\text{Ls}$)のEGf氏の $\omega=271^\circ\text{W}$ も同様である。日本では同日のKm氏にはB像がないが $\omega=033^\circ\text{W}$ で可能性がある。Mo氏はもっと陽(explicit)に $\omega=017^\circ\text{W}$

~059°W(6セット)の連作で(Bを見よ) $\omega=024^\circ\text{W}$ 以降、 034°W 、 044°W 、 054°W 、 059°W とクリュセを中心に赤道帯霧を出している。21Feb($\lambda=055^\circ\text{Ls}$)にはAk氏が $\omega=021^\circ\text{W(B)}$ 、 041°W(B) に仄かに、Mo氏はこの日も連作で、特に $\omega=029^\circ\text{W}$ 、 034°W 、 044°W 、 053°W で赤道帯霧がかなり明白である。23Feb($\lambda=056^\circ\text{Ls}$)にはMnが $\omega=018^\circ\text{W}$ 、 027°W 、 037°W 、 047°W 、 057°W 、更にNj氏とMnが夫々 $\omega=071^\circ\text{W}$ と $\omega=076^\circ\text{W}$ で感じているが、クリュセが中央で(半ば太陽光の反射)で明るいからであろうと思っていたが、Mo氏の20Febの $\omega=054^\circ\text{W}$ 等を見ると確かにRGBでもLRGBでも中央を霧が走っている。24Feb($\lambda=056^\circ\text{Ls}$)ではMnが $\omega=009^\circ\text{W}$ 、 019°W 、 028°W 、 038°W 、 048°W で見ている。28Feb($\lambda=058^\circ\text{Ls}$)にはMo氏が早く $\omega=296^\circ\text{W(B)}$ で撮っており、Mnは $\omega=027^\circ\text{W}$ 、 036°W 辺りである。SGh氏も $\omega=071^\circ\text{W}$ で写し出している。3Mar($\lambda=059^\circ\text{Ls}$)にはMnが $\omega=252^\circ\text{W}$ 、 262°W でレビューの内部での明るさを感じて、帯を見ている。このレビューは地表の反射かも知れない。朝霧はTPk氏が17Feb($\lambda=053^\circ\text{Ls}$) $\omega=339^\circ\text{W}$ にクリュセに通じる朝霧を撮っている。20Feb($\lambda=054^\circ\text{Ls}$)のKm氏の $\omega=033^\circ\text{W}$ にも注目。21Feb($\lambda=055^\circ\text{Ls}$) $\omega=011^\circ\text{W}$ 、 021°W にはMkがクリュセの顕著な朝霧を観察したし、Nj氏も同じ時刻に観測しており、Mnは $\omega=085^\circ\text{W}$ ぐらいまで追っている。タルシスの朝霧はMo氏が19Feb($\lambda=054^\circ\text{Ls}$) $\omega=069^\circ\text{W}$ 、 074°W で撮り、前者ではタルシス三山が明確に暗点として出ている。Mo氏の20Feb($\lambda=054^\circ\text{Ls}$) $\omega=044^\circ\text{W}$ でも出ているようである。また同じくMo氏の21Feb($\lambda=055^\circ\text{Ls}$)の $\omega=053^\circ\text{W}$ でも少なくともアスクラエウス・モンズは出ている。SGh氏も28Feb($\lambda=058^\circ\text{Ls}$) $\omega=071^\circ\text{W}$ で撮り、ボンヤリとタルシス三山を出しているが、1Mar($\lambda=058^\circ\text{Ls}$)にDPc氏が $\omega=063^\circ\text{W}$ 、 068°W 、 072°W で強烈な低空の朝霧と共にタルシス三山を茶系統の暗点として浮かび上がらせている。HSTの30Mar1997($\lambda=097^\circ\text{Ls}$)の画像を彷彿とさせるが、時期的にはHSTがもっと遅い。同日SKd氏が $\omega=072^\circ\text{W}$ でも示しているほか、ボスマン(RBs)氏が同日 $\omega=083^\circ\text{W}$ でかなり内部で三山とオリュムプス・モンズを見せた。2Mar($\lambda=059^\circ\text{Ls}$)にはDPc氏が再び $\omega=059^\circ\text{W}$ で、MLw氏が $\omega=068^\circ\text{W}$ で示している。4Mar($\lambda=060^\circ\text{Ls}$)にはDPc氏が $\omega=047^\circ\text{W}$ (050°W)、 060°W 、 070°W で撮ったが、 $\omega=070^\circ\text{W}$ では朝霧の中にオリュムプス・モンズが出ている($t=24^\circ$)。同日、ISp氏も $\omega=059^\circ\text{W}$ で撮り朝霧は強く、アスクラエウス・モンズとパウオニス・モンズが明確、DTy氏も $\omega=062^\circ\text{W}$ (066°W)で示している。更にキングスレイ(BKn)氏が $\omega=071^\circ\text{W}$ で四山を鮮明に出した。MLw氏の5Mar($\lambda=060^\circ\text{Ls}$) $\omega=101^\circ\text{W}$ には朝霧と関係なく、かなり内部でタルシス三山とオリュムプス・モンズが出ている。またPGc氏の7Mar($\lambda=061^\circ\text{Ls}$) $\omega=094^\circ\text{W}$ にも朝霧は顕著でないが見えている。RTm氏の7Mar($\lambda=061^\circ\text{Ls}$) $\omega=103^\circ\text{W}$ にもかなり内部で四山が撮れている。メリッロ(FMI)氏の10Mar($\lambda=062^\circ\text{Ls}$) $\omega=114^\circ\text{W}$ にはハッキリしないが見えているのであろう。朝霧は14Mar($\lambda=064^\circ\text{Ls}$) $\omega=041^\circ\text{W}$ のEMr氏の像にも未だ残っている。尚、こうした現象については夫々CMO#201(1998)、CMO#230(2000)など、或いは次をクリックすると朝方のモンテスが

<http://www.hida.kyoto-u.ac.jp/~cmo/cmomn0/97Note03j.htm>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmo/note/9907/07j.html>

論じられている。C)レビュー霧：レビュー霧は朝も夕方もシュルティス・マイヨルと絡んで面白いものである。21Feb($\lambda=055^\circ\text{Ls}$)にMo氏が $\omega=004^\circ\text{W}$ で沈みゆくシュルティス・マイヨルを撮ったが、少し遅いのと、Lフィルターは色を消すので、うまくないが、22Feb($\lambda=055^\circ\text{Ls}$)のAk氏は $\omega=357^\circ\text{W}$ 、 007°W で撮り、RGBだからシュルティス・マイヨルがレビュー霧で蒼色になっている(特に前者)。23Feb($\lambda=056^\circ\text{Ls}$)にはAk氏が $\omega=351^\circ\text{W}$ 、 001°W で撮ったが両者とも蒼色のシュルティス・マイヨルを出している。Km氏もカラーで $\omega=359^\circ\text{W}$ で仄かに出しているが、ディテールを狙ったLRGBでは黒くなっている。Mkは $\omega=322^\circ\text{W}$ ぐらいから追い、 $\omega=351^\circ\text{W}$ では青味を帯びた細いシュルティス・マイヨルを観察した。Kz氏は $\omega=013^\circ\text{W}$ でレビュー霧の残滓を見ている。この日福井ではNj氏とMnが $\omega=319^\circ\text{W}$ (Mn)、 324°W (Nj)、 329°W (Mn)、 334°W (Nj)、 339°W (Mn)、 344°W (Nj)、 348°W (Mn)、 353°W (Nj)、 358°W (Mn)、 003°W (Nj)と追ったが、後半はシュルティス・マイヨルは浅葱色であった。先に述べたが $\omega=339^\circ\text{W}$ 等でのレビュー霧はヘッラスの夕方の白さに負けない。なお、レビュー雲とどう関わるか俄には解らないが、Mnの観測では $\omega=319^\circ\text{W}$ 、 329°W 、 339°W ではアエリアが赤味を帯びて明るく、これは同日Mk

も $\omega=331^\circ\text{W}$ で指摘した。24Feb($\lambda=056^\circ\text{Ls}$)のKm氏は $\omega=345^\circ\text{W}$ でLRGB、 $\omega=347^\circ\text{W}$ でカラーだが、カラーでは青味が出ていて、Lの欠点が出ている。Ak氏は $\omega=352^\circ\text{W}$ 、 001°W でRGBを拵えているが、どちらも蒼い。24Febには福井でNj氏とMnが同じように追跡したが煩雑になるので略す。ただこの日は霧の濃度かシーイングの所為かスカイブルーにはならなかった。Mkには色調が不明であった。ただこの日Mkは多分リビュア霧の残滓がシヌス・サバエウスの北側に沿って東西に延びているのを観察した。尚、この日にはMo氏が $\omega=004^\circ\text{W}$ でシュルティス・マイヨルを捉えているが、色が出ていない。他にSGh氏の2Mar($\lambda=059^\circ\text{Ls}$) $\omega=006^\circ\text{W}$ 、5Mar($\lambda=060^\circ\text{Ls}$) $\omega=347^\circ\text{W}$ 、 357°W 、KSm氏の7Mar($\lambda=061^\circ\text{Ls}$) $\omega=358^\circ\text{W}$ 等があるが、リビュア霧との関係が判らない。尚、7Mar($\lambda=061^\circ\text{Ls}$)にはKSm氏が $\omega=358^\circ\text{W}$ でDPc氏が $\omega=001^\circ\text{W}$ 、 005°W で夕端のシュルティス・マイヨルを描写したが、決して蒼くない(DPc氏では朝霧夕霧共に強くない)。一方朝方ではRTmの22Feb($\lambda=055^\circ\text{Ls}$) $\omega=237^\circ\text{W}$ や同日のPGc氏の $\omega=237^\circ\text{W}$ (L像が入っているにも拘わらず)で、朝方のシュルティス・マイヨルは青味を帯びて見えている。尚、シュルティス・マイヨル蒼色雲など存在しない。何故白霧の下で青味を帯びるかについては、Mnが嘗て

<http://www.hida.kyoto-u.ac.jp/~cmo/cmo/note/9901/01j.html>

に考察を書いているのでクリックされたい(CMO#225)。D)オリュムプス・モンスの山岳雲：別項で述べるように現在は山岳雲はWeak状態とActive状態の間でとてもVery_Activeではないのであるが、ccdにはオリュムプス・モンスなどが引っ掛かっている。状態は輝度より面積で決まるのであるが、それが大きくは無いという事である。オリュムプス・モンスの山岳雲を描写しているのは主なものは次の様である：プーポー(JPp)氏の16Feb($\lambda=053^\circ\text{Ls}$) $\omega=189^\circ\text{W}$ ；17Feb($\lambda=053^\circ\text{Ls}$)にはSGh氏が可成り内部で $\omega=147^\circ\text{W}$ (アルバも出ている)、MLw氏の $\omega=174^\circ\text{W}$ 、DPc氏の $\omega=191^\circ\text{W}$ 、 195°W 、ガーベット(PGb)氏の $\omega=193^\circ\text{W}$ ；18Feb($\lambda=054^\circ\text{Ls}$)はRGh氏の $\omega=186^\circ\text{W}$ ；19Feb($\lambda=054^\circ\text{Ls}$)はローレンス(PLw)氏の $\omega=182^\circ\text{W}$ 、ISp氏の $\omega=189^\circ\text{W}$ ；20Feb($\lambda=054^\circ\text{Ls}$)はSKd氏の $\omega=182^\circ\text{W}$ 、BKd氏の $\omega=182^\circ\text{W}$ 、 205°W 、PGb氏の $\omega=185^\circ\text{W}$ ；24Feb($\lambda=056^\circ\text{Ls}$)はEMr氏の $\omega=198^\circ\text{W}$ ；28Feb($\lambda=058^\circ\text{Ls}$)はEMr氏の $\omega=179^\circ\text{W}$ 、WFl氏の $\omega=186^\circ\text{W}$ 、 196°W ；1Mar($\lambda=058^\circ\text{Ls}$)はPGc氏の $\omega=167^\circ\text{W}$ ；2Mar($\lambda=058^\circ\text{Ls}$)はPGc氏の $\omega=173^\circ\text{W}$ 等である。眼視ではMnらが14Mar($\lambda=064^\circ\text{Ls}$)に $\omega=170^\circ\text{W}\sim 190^\circ\text{W}$ 辺りまで灰かに認めるものの、綿毛状態からは程遠い。但し同日のAk氏の $\omega=174^\circ\text{W}$ 、Km氏の $\omega=164^\circ\text{W}$ も参照。E)エリュシウム・モンスの不活性：エリュシウム・モンスの山岳雲もオリュムプス・モンスと同じ過程を辿るのであるが、次の画像を見ると不活性に見える：17Feb($\lambda=053^\circ\text{Ls}$)のEMr氏の $\omega=269^\circ\text{W}$ ；19Feb($\lambda=054^\circ\text{Ls}$)のPGc氏の $\omega=266^\circ\text{W}$ ；20Feb($\lambda=054^\circ\text{Ls}$)のEGf氏の $\omega=271^\circ\text{W}$ 等である。三月に入っても15Mar($\lambda=065^\circ\text{Ls}$)のDPc氏の $\omega=277^\circ\text{W}$ 、 287°W の像では縁に来ても然程でない。F)アルバ：アルバ・モンスはCMO#319で紹介したように、 $\lambda=050^\circ\text{Ls}$ 辺りに第一のピークを持っている。然し、注目が集まらなかったらしく、観測が少なく、先にも引用したSGh氏の17Feb($\lambda=053^\circ\text{Ls}$) $\omega=147^\circ\text{W}$ 位しか目につかない。CMO #179 (25 Sept1996)から次をクリックされたい。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmomn0/95Note13j.htm>

G)北極冠近辺：北極冠は小さくなっているが、見るところによって一様ではない。北極冠の縁に突起のようなものは例えば17Feb($\lambda=053^\circ\text{Ls}$)にはMLw氏が $\omega=174^\circ\text{W}$ で、DPc氏が $\omega=191^\circ\text{W}\sim 195^\circ\text{W}$ で、SKd氏が $\omega=223^\circ\text{W}$ で、19Feb($\lambda=054^\circ\text{Ls}$)にはPLw氏が $\omega=182^\circ\text{W}$ で、ISp氏が $\omega=189^\circ\text{W}$ で見ているほか、少し省略して、WFl氏は28Feb($\lambda=058^\circ\text{Ls}$) $\omega=186^\circ\text{W}$ で見ている例がある。マレ・アキダリウムのところも一様ではなく、Mo氏の19Feb($\lambda=054^\circ\text{Ls}$) $\omega=058^\circ\text{W}\sim 074^\circ\text{W}$ で、20Feb($\lambda=054^\circ\text{Ls}$)にはKm氏が $\omega=033^\circ\text{W}$ で描出し、Kz氏も $\omega=040^\circ\text{W}\sim 049^\circ\text{W}$ で描いている。Km氏の21Feb($\lambda=055^\circ\text{Ls}$) $\omega=017^\circ\text{W}$ も参照。更にはDPc氏の1Mar($\lambda=058^\circ\text{Ls}$) $\omega=063^\circ\text{W}$ や同日のSKd氏の $\omega=072^\circ\text{W}$ 等こちらも落ち着かない。多分未だ境界で雲の活動があるのであろう。ただし、他のところでは周りでのダストも予想通り治まったかに見える。Km氏の21Feb($\lambda=055^\circ\text{Ls}$) $\omega=017^\circ\text{W}$ を見ると既にイアクサルテスが出てきて居るみたいである。これについては<http://www.hida.kyoto-u.ac.jp/~cmo/cmomn0/97Note11j.htm> で伊舎堂(Id)氏の観測を述べたことがあるが、少し先の話になる。ただ、既にMo氏の23Feb($\lambda=056^\circ\text{Ls}$) $\omega=012^\circ\text{W}$ 等で極めてややこしくなってい

る。3Mar($\lambda=059^\circ\text{Ls}$) $\omega=047^\circ\text{W}$ のRGh氏の像でも奇妙である(Bでは白雲の活動があるか)。更にDPc氏の5Mar($\lambda=060^\circ\text{Ls}$)の $\omega=030^\circ\text{W}$ 、6Mar($\lambda=061^\circ\text{Ls}$) $\omega=033^\circ\text{W}$ 、 038°W を見ると、マレ・アキダリウムの西北部にはイアクサルテスに関して暗部に茶系統の異質の部分が見える。多分擾乱があったかそれが沈着したものであろう。PGc氏の10Mar($\lambda=062^\circ\text{Ls}$) $\omega=062^\circ\text{W}$ も参照されたい。更にDPk氏の15Mar($\lambda=064^\circ\text{Ls}$) $\omega=017^\circ\text{W}$ ではこの辺りから北極冠の東縁に掛けて黄土色の拡がりがあり奇妙である。北極冠域には未だ大型の白雲の発生も考えられ、更に先には北極冠の周りが破片で賑やかになる。次期の話になるかも知れないが、<http://www.hida.kyoto-u.ac.jp/~cmo/cmomn0/97Note04j.htm>等は参考になるだろう(クリック)。

♂……追加報告 : We further received as follows:

GHOMIZADEH, Sadegh サデグ・ゴミザデ (SGh) テヘラン Tehran, Iran

1 Colour Image (8 January 2010) 28cm SCT @f/37 with a DMK21AU04.AS

LEWIS, Martin R マーチン・ルウイス (MLw) 英国 St. Albans, Hertfordshire, UK

1 Colour Image (31 January 2010) 22cm speculum @f/46 with a DMK21AF04.AS

OKUMURA, Masayuki 奥村 雅之 (Om) 名古屋 Nagoya, Aichi, Japan

2 Colour Images (6 February 2010) 100cm Cassegrain^f with a Sony DCR-DVD403 cam

(^fBAO; Bisei Astronomical Observatory, Okayama)

Because of a unknown reason, SGh sent us an old set of images taken on 8 Jan ($\lambda=035^\circ\text{Ls}$) at $\omega=178^\circ\text{W}$, 198°W : the latter is a better image but the former shows a rudimental state of the orography of Olympus Mons. MLw's image was taken on 31 Jan ($\lambda=046^\circ\text{Ls}$) at $\omega=002^\circ\text{W}$ where Syrtis Mj is near the evening limb, but the colour is obscure. Om's images were taken by a big telescope, but images are much blurred.

何故だか判らないが、SGh氏の8Jan($\lambda=035^\circ\text{Ls}$) $\omega=178^\circ\text{W}$ 、 198°W は後で提出された。後者の方が像として好いが、前者にはオリュムプス・モンスの山岳雲の初期の状態が出ている。MLw氏の31Jan($\lambda=046^\circ\text{Ls}$) $\omega=002^\circ\text{W}$ はシュルティス・マイヨルが沈むところだが、色が判らない。Om氏の画像は時間を置いて撮っているが、両像共ぼやけがある。それより火星に対する興味を持続させて欲しい。

♂……In the next issue we shall review the observations made during the one-month period from 16 March ($\lambda=065^\circ\text{Ls}$, $\delta=10.6''$) to 15 April 2010 ($\lambda=078^\circ\text{Ls}$, $\delta=8.2''$).

南 政 次・村上 昌己 M MINAMI & M MURAKAMI

Forthcoming 2009/2010 Mars (16)

Olympus Mons and Hellas オリュムプス・モンスとヘッラス

Masatsugu MINAMI 南 政 次(Mn)

Recently there are increased observers who are interested in no more than making images (imagers), but not so interested in the planet Mars itself, more exactly in the seasonal changes of the planet. From around the northern spring equinox Olympus Mons and other Tharsis Montes began to be active in the evening and so several began to stress the orography especially by the enhancement of B images. However we recommend the imagers to pursue the seasonal activities of them from a

fixed point of view.

As to the variations of Montes as well as Hellas, S A SMITH & B A SMITH once published an interesting study in *Icarus* 16 (1972) 509 where the Very Active (VA) states will visit just before $\lambda=090^\circ\text{Ls}$ in the case of Olympus Mons while just after $\lambda=090^\circ\text{Ls}$ in the case of Hellas. This year the Martian season $\lambda=090^\circ\text{Ls}$ will visit in mid-May, and so somewhat ahead. Of course, the reasons of Olympus Mons's and Hellas's brightness are very differ-

ent: The former is due to the orographic cloud in the afternoon and the latter is because of the frost inside the basin and hence it is visible whole-diurnally. However the characteristic curves of the brightness are quite similar. [As to the article of SMITH-SMITH we introduced in some details in CMO #134 (25 June 1993 issue). To see the curves, click the following for example

<http://www.hida.kyoto-u.ac.jp/~cmo/cmomn3/273tya94.htm> though the Japanese part will look disguised for a different encode.] We thus insist that the imager should prepare to chase the change of the brightness of the orographic clouds at the same local times by taking into account the phase angles. The observations must be accompanied by the “comparison” and hence the conditions of the imaging must be put on the same ground. Especially it should be remarked that since the markings are not always visible every day, the comparison is not easy. The situation of Hellas is also similar.

According to SMITH-SMITH (who depended on the levelled data in 1963, 1965, 1967, 1969, and 1971), at the stage when the present writer is writing this (at the beginning of March at around $\lambda=050^\circ\text{Ls}$, reviewing the reports at the second half of February), the orographic cloud of Olympus Mons is Active (A) but not yet VA.

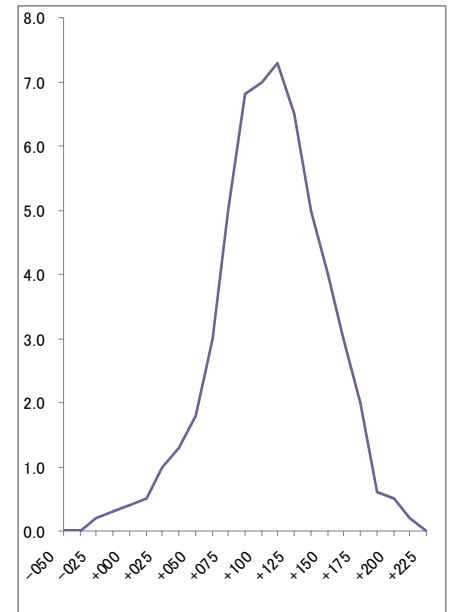
Another report by Jennifer L BENTON et al, *Icarus* **165** (2003) 34 (as to which we reported in CMO #319 (25 May 2006 issue), based on the MOC data, published a set of graphs in 2000/2001 pin-point-wisely. Here we roughly schematically trace the more detailed graph by BENTON et al to compare with the one of SMITH-SMITH (abscissa is Ls). As you see, the variation is quite steep, and compared with SMITH-SMITH, the point 2 on the ordinate (vertical line) may correspond to Weak (W), while 5 is A and from 6 to 7 may be VA. So at the end of March (around $\lambda=070^\circ\text{Ls}$) Olympus Mons will be still A. The VA state will be from around $\lambda=090^\circ\text{Ls}$ to around 130°Ls , and $\lambda=130^\circ\text{Ls}$ implies mid-August this year, while the angular diameter is around 4 arcsecs. Hence conversely speaking we should say it

is possible to see the cotton-ball like cloud until the end of this season. However this analysis is available also in the coming apparitions in 2012 and 2014, and so should be very kept in mind.

In 1997, the present writer watched visually the cotton-ball-like cloud at $\lambda=076^\circ\text{Ls}$ ($\delta=11.5^\circ$) before opposition. The 1997 apparition was the one after the true aphelic opposition in 1995. Thus we should not be so in hurry this year, but try to keep the standard of imaging stable in the coming apparitions.

Hellas is also an interesting object: It is now not bright, and as was introduced in CMO #353 pSer2-1021 the PFS/MEX data suggests, it will become a part of the bright spc. Click the following to see the trend of our results in 1995 in CMO#174:

<http://www.hida.kyoto-u.ac.jp/~cmo/cmomn0/95Note10.htm>



◆この三月の末で火星の季節は $\lambda=071^\circ\text{Ls}$ になり、愈々タルシス山系とヘッラスの問題で興味深い時期を迎える。S A SMITH & B A SMITHの *Icarus* **16** (1972)509の論攷によると、 $\lambda=070^\circ\text{Ls}$ ではオリュムプス・モンスの山岳雲もヘッラスも active (A)な状態になる。[この論文についてはCMO#134(25 June1993号)で詳しく紹介したし、#009号や#077号でも扱っている。]◆勿論、両者は同じ構造ではない。前者は午後から夕方に掛けての上昇雲による現象であるのに対し、後者はCO₂の氷結によって白く輝くのであって、全日的な活動である。◆而も、両者共がvery active (VA)な状態になるのは、SMITH-SMITHに據ると少し違いがあり、オリュムプス・モンスは $\lambda=090^\circ\text{Ls}$ 前になるのに対し、ヘッラスのVAは $\lambda=090^\circ\text{Ls}$ より少し遅れる。 $\lambda=090^\circ\text{Ls}$ というのは五月中旬に訪れるから、少し先の話に

なる。視直径 δ も6秒台に落ちるから、観測は簡単ではない。但しヘッラスは丁度日本から夕方見られるであろう。◆ここで強調したいのは、既にオリュムプス・モンズなどの山岳雲がccdのB光に引掛かるからといって、綿毛の様な山岳雲とは未だ規模が違うという点である。◆斯くの如くヘッラスも山岳雲も季節によって変わるわけであるから、観測は同じ条件で続け、「比較」しなければならないということがある。◆但し、ヘッラスも、オリュムプス・モンズも毎日観られる譯ではないので、餘程シッカリした定常観測をしなければならない。視直径や位相角も変わって来るから、その兼ね合いを考慮しなければならない。◆尚、SMITH²の圖は#134號をお持ちでない向きは、TYA(94)にコピー版が出ているので参照されたい。
<http://www.hida.kyoto-u.ac.jp/~cmo/cmomn3/273tya94.htm>

◆SMITH-SMITHに依れば筆者がこれを書いたり二月の観測を整理したりしている三月上旬($\lambda=060^\circ\text{Ls}$ 頃)の段階ではオリュムプス・モンズの高岳雲はAであるが、VAではない。◆實はSMITH-SMITHは1963年、1965年、1967年、1969年、1971年等の結果を平均化したものであるが、SMITH-SMITHより個別化した2000/2001年のMOC観測による結果がJennifer L BENTON et al, *Icarus* 165 (2003)34の論攷に出ていて、やや詳しく見える。[これについても既にCMO#319(25May2006號)で報告している。アルバ・パテラに就いてはグラフも引用した。] ◆是に據るとオリュムプス・モンズに関しては $\lambda=070^\circ\text{Ls}$ でAと言えそうである。上に掲げる圖(横軸が Ls)はBENTON et alの圖のオリュム

プス・モンズに関するFig4を模式化したもので、SMITH-SMITHと對應させる爲である。◆縦軸の略2.0がweak (W)、5.0がA、6.0から7.0がVAに對應するであろう。◆VAである期間は $\lambda=090^\circ\text{Ls}$ から 130°Ls 邊りになるが、内容はSMITH-SMITHの様に平坦ではなく増減が強い(のでここでは平均化を試みた譯である。従って傾向を示すだけで観測値とも若干違うし、毎年異なるであろう)。 $\lambda=130^\circ\text{Ls}$ と云えば八月中旬で、視直径 δ も4秒台であるから、観測末期、逆に言えば綿毛様の山岳雲は観測終焉まで観測可能ということになる。◆但し、視直径が足りないのは困ったことで、然し實はこれまで述べて来たようなことは來期もしくは再來期の観測にも當て嵌まることである事を記憶して欲しい。◆1997年には最接近前の $\lambda=076^\circ\text{Ls}$ ($\delta=11.5''$)で筆者は眼視で見ているが、1997年は1995年の小接近のあとの接近であった。つまり、山岳雲に就いては周章てる必要がない、という事と同時に「比較」は來期、再來期に互って観測の姿勢を維持しなければならないことを意味する。

◆尚、ヘッラスについても似たような動きをすることを念頭に、観測を続けて欲しい。PFS/MEXの最近の結果に就いてはCMO#353の「淺信」で要約しているし、1995年の様子に就いては
<http://www.hida.kyoto-u.ac.jp/~cmo/cmomn0/95Note10j.htm>
 をクリックして見られたい。

◆最後に、最近火星観測には特別興味がないがccdでディテールに興味があるという人達が増え、こうしたものを何度も強調しなければならないということに遺憾と付け加える。□

便り

Letters to the Editor

(Click the links to see the posted images, -Ed.)

●.....**Subject: Mars-2010-02-21**
Received: Mon 22 Feb 2010 19:21:11 JST

南政次様、熊森照明です。久しぶりに気持ちよく晴れた一日でした。シーイングは想像していたよりは悪かったのですが、それでも良好で、そこそこのディテールが見えていました。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100221/Km21Feb10.jpg>

○.....**Subject: Mars-2010-02-23-KUMAMORI**
Received: Tue 23 Feb 2010 23:24:42 JST

今日も昼ごろから穏やかに晴れたのですが、近

場の気流があまり良くありません、夕方に近づいてベランダが温まっているせいかもしれません。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100223/Km23Feb10.jpg>

○.....**Subject: Mars-2010-02-24**
Received: Wed 24 Feb 2010 23:08:31 JST

穏やかな晴れが続いています。シーイングもまずまず良好。カラーカメラ単独で撮影している方が、解像度はありませんが、自然な感じがします。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100224/Km24Feb10.jpg>

○.....**Subject: Mars-2010-02-28-KUMAMORI**
Received: Mon 01 Mar 2010 18:22:39 JST

雨上がりのような、もやっとした晴れ方になり、満月に照らされてか空が白く、火星のコントラストも良くありません。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100228/Km28Feb10.jpg>

○.....**Subject: Mars-2010-03-14-KUMAMORI**
Received: Mon 15 Mar 2010 16:04:46 JST

梅雨のような天気が続きなかなか撮影できませんでした。視直径も小さくなってきましたが、ペランダからの撮影時間が夕方になってきて、もう暫くすると撮影できなくなるかと思えます。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100314/Km14Mar10.jpg>

○.....**Subject: Mars-2010-03-16-KUMAMORI**
Received: Wed 17 Mars 2010 20:39:39 JST

久しぶりに風も強く望遠鏡が揺れました。シーイングも悪く大揺れおぼけの世界でした。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100316/Km16Mar10.jpg>

○.....**Subject: Mars-2010-03-17-KUMAMORI**
Received: Wed 17 Mars 2010 22:18:36 JST

昨日よりもシーイングが良くなりましたが、まだまだ、ユラユラとぼけています。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100317/Km17Mar10.jpg>

○.....**Subject: Mars-2010-03-19-KUMAMORI**
Received: Fri 03/19/2010 22:33:42 JST

薄明中の撮影になりました。そろそろペランダからの撮影も終わりが近づいて来ました。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100319/Km19Mar10.jpg>

熊森 照明 (Teruaki KUMAMORI 堺 Osaka)

●.....**Subject: Mars Ak21Feb10 Ak22Feb10**
Received: Mon 22 Feb 2010 23:31:24 JST

南様、昨夜と今夜の火星です。透明度がやや悪いのですが、風が少ない夜です。火星が小さくなりました。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100221/Ak21Feb10.jpg>
<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100222/Ak22Feb10.jpg>

○.....**Subject: Mars Ak23Feb10**
Received: Wed 24 Feb 2010 13:23:56 JST

昨夜の火星画像です。画像処理のパソコンをデスクトップに変えてから処理が早くなりました。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100223/Ak23Feb10.jpg>

○.....**Subject: Mars Ak24Feb10**
Received: Thu 25 Feb 2010 17:49:40 JST

昨夜の火星像です。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100224/Ak24Feb10.jpg>

○.....**Subject: Mars Ak25Feb10 Ak26Feb Ak27Feb**
Received: Sun 28 Feb 2010 17:43:13 JST

火星画像、三夜分を添付します。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100225/Ak25Feb10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100226/Ak26Feb10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100227/Ak27Feb10.jpg>

○.....**Subject: Mars Ak 28Feb10**
Received: Mon 01 Mar 2010 15:34:29 JST

南様、昨夜の画像です。火星画像のピントが甘いのは夕方の撮像で筒内気流が収まっていない状態で撮るせいだと思います。十分外気になじんだ土星がシャープなのはそのせいと考えています。それと光学系が破損し、交換したCP調整が完全でないのもあるかと思えます。

体調は小康状態で頑張っていますが、連夜の晴れはしんどい状態です。今夜も晴れそうです。

先週地元の小学低学年相手に観望会を行いました。父兄も初めての体験でいたく喜んでいました。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100228/Ak28Feb10.jpg>

○.....**Subject: Mars Ak03Mar10**
Received: Thu 04 Mar 2010 17:50:29 JST

昨夜の火星です。筒内気流はまだ残っています。前回より改善されてはいますが、まだまだです。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100303/Ak03Mar10.jpg>

○.....**Subject: Mars Ak05Mar10**
Received: Sun 07 Mar 2010 23:21:16 JST

3月5日の火星画像です。南中時刻が早まり、忙しい時間帯となりました。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100305/Ak05Mar10.jpg>

○.....**Subject: Mars Ak08Mar10**
Received: Tue 09 Mar 2010 13:40:22 JST

昨夜の火星です。屋上の風が強く、像がダンスをしています。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100308/Ak08Mar10.jpg>

○.....**Subject: Mars AK13Mar10 Ak14Mar10**
Received: Sun 14 Mar 2010 22:00:36 JST

昨夜と今夜の火星画像です。火星がますます小さくなりましたね。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100313/Ak13Mar10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100314/Ak14Mar10.jpg>

○.....**Subject: Mars Ak17Mar10**
Received: Wed 17 Mars 2010 22:22:26 JST

今夜の火星画像です。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100317/Ak17Mar10.jpg>

○.....**Subject: 火星画像 Ak20Mar10**
Received: Sat 20 Mar 2010 23:21:42 JST

今夜の火星画像です。薄雲があり、ノイズが多い画像です。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100320/Ak20Mar10.jpg>

阿久津 富夫(Tomio AKUTSU セブThe Philippines)

●.....**Subject: Mas Image Feb 21, 2010**
Received: Mon 22 Feb 2010 23:37 JST

Attached is my image from Feb 21, 2010. Best

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100221/DAd21Feb10.jpg>

David ANDERSON(テラウイット・アンダーソンSC美)

●.....**Subject: mars 2-22**
Received: Mon 22 Feb 2010 23:48:45 JST

Dear Masami, I finally had good seeing last night and it was not very cold. I used the 25 cm f/12 refl., 3X barlow, Baader minus IR filter, Toucam Pro, Registax 4 and Photoshop CS2. It has been a difficult apparition for me since the weather has been bad and I have on and off bronchitis. Sincerely,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100222/RTm22Feb10.jpg>

○.....**Subject: mars 3-16-10**
Received: Thu 18 Mar 2010 10:10:15 JST

Dear Masami, I had good seeing during late twilight. I used the 25 cm f/12 reflector with 3x barlow and Toucam Pro. Sincerely,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100316/RTm16Mar10.jpg>

○.....**Subject: mars 3-7**
Received: Sun 21 Mar 2010 23:45:00 JST

Dear Masami, Sorry to send this one late. I used the 25cm f/12 refl., 3x barlow, minus IR filter and Toucam Pro. Sincerely,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100307/RTm07Mar10.jpg>

Randy TATUM (ランディ・テータム Henrico VA美)

●.....**Subject: Mo 21 Feb 10**
Received: Tue 23 Feb 2010 02:03:45 JST

今日は帰りが遅く、薄雲がかかって撮像出来ませんでした。21日は比較的状态も良く、まずまずの像が撮れました。10:46~14:15まで撮って

ますが、今は最初と最後の像だけ処理してお送りします。(後で追加される-Ed. 以下をクリック。)

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100221/Mo21Feb10.jpg>

○.....**Subject: Mo 28 Feb 10**
Received: Mon 01 Mar 2010 01:35:39 JST

お世話になります。28日に『火星通信』届きました。有難うございました。さて、このところ比較的Seeingが良くまずまずの像が撮れています。16日から28日まで八日分が溜まっていますが、処理してお送りします。今日の方は最初に撮った像のみです。この後13時まで撮っています。なかなか時間はありませんが出来るだけのことはしようと思っています。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100228/Mo28Feb10.jpg>

○.....**Subject: Mo 21 Feb 10**
Received: Fri 12 Mar 2010 01:22:35 JST

お世話になります。21Febが出来ましたのでお送りします。フィルターはAstroNomiKRGBType-2cフィルターセットとなっていますので、2cもType IIも同じものと思います。

先日の雪は広島では大したことはありませんでした。ご心配有難うございました。

明日には20日分を送ろうと思っています。21日とは又少し違った像です。明日は晴れそうです。最新版もねらっていますが…。色を変えて見ました。なかなか大変でしたが、少しは良くなった気がします。合成色をそろえるのは大変です。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100221/Mo21Feb10.jpg>

○.....**Subject: Mo 20 Feb 10**
Received: Sat 13 Mar 2010 03:35:27 JST

20Febをお送りします(6セット)。一方今日は1回だけ撮像できましたが、雲が多く良くありません。明日処理しようと思っています。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100220/Mo20Feb10.jpg>

○.....**Subject: Mo 23 24 28 Feb 10**
Received: Mon 15 Mar 2010 01:54:02 JST

2月分最後の像です。今日は曇ってだめでした。又、晴れ間を狙って撮像します。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100223/Mo23Feb10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100224/Mo24Feb10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100228/Mo28Feb10.jpg>

○.....**Subject: Mo 17 Mar 10**
Received: Thu 18 Mars 2010 01:13:21 JST

12 16 17日と撮っていますが、Seeingは良くありません。今日は薄雲に覆われていましたが、何とか撮像できました。お送りしたものが一番状態が良いものです。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100317/Mo17Mar10.jpg>

○.....**Subject: Mo 18 Mar 10**
Received: Fri 19 Mar 2010 02:12:53 JST

相変わらずSeeingは良くないし、雲が多く撮像に困ります。雲間からの撮像です。明日は天気が良さそうなので、期待しています。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100318/Mo18Mar10.jpg>

森田 行雄 (Yukio MORITA 廿日市 Hiroshima)

●.....**Subject: mars 8 jan**
Received: Tue 23 Feb 2010 05:44:19 JST

I sent this image because you remember of mars in January, now this planet step by step go until next 2

years. We must patience that time.

Here is Mars on 8 January, good seeing& atmosphere it shown blue cloud on NPR & SPR & left & right section. PLS See you it. Ciao

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100108/SGh08Jan10.jpg>

○.....**Subject: Fw: Mars 24 feb**
Received: Thu 25 Feb 2010 14:19:05 JST

Hi OAA- Group, Here are Mars images on 24 February in different times. Ciao

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100224/SGh24Feb10.jpg>

○.....**Subject: mars 28 feb.**
Received: Tue 02 Mar 2010 08:54:07 JST

Hi OAA-Group; seeing& atmosphere terrible. Cheers

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100228/SGh28Feb10.jpg>

○.....**Subject: mars 2 march**
Received: Thu 04 Mar 2010 01:07:02 JST

Hi OAA-Group, seeing & atmosphere was average.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100302/SGh02Mar10.jpg>

○.....**Subject: mars 3 march**
Received: Fri 05 Mar 2010 11:51:58 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/2009/100303/SGh03Mar10.jpg>

○.....**Subject: mars 7 march**
Received: Tue 09 Mar 2010 08:56:13 JST

Hello OAA-Japan, seeing& atmosphere good.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100307/SGh07Mar10.jpg>

○.....**Subject: mars 10 march**
Received: Thu 11 Mar 2010 10:45:58 JST

Hi OAA Japan, seeing & atmosphere was poor.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100310/SGh10Mar10.jpg>

○.....**Subject: mars 11& 12 mar**
Received: Sat 13 Mar 2010 16:03:27 JST

Hi Guys, Hear are Mars 11 & 12 March seeing & atmosphere was good PLS see you them.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100311/SGh11Mar10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100312/SGh12Mar10.jpg>

○.....**Subject: mars on 19 mar**
Received: Sun 21 Mar 2010 11:05:37 JST

Hello OAA- Japan, Hear are mars on 19 march seeing was poor atmosphere was unstable. Ciao

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100319/SGh19Mar10.jpg>

Sadegh GHOMIZADEH

(サデグ・ゴミザデ Tehran 伊朗)

●.....**Subject: Mars 21st Feb**
Received: Tue 23 Feb 2010 08:26:36 JST

Hi, Here is my Mars image from just after midnight on 21st Feb in very still seeing. Gives a very similar view to my image of 17th Feb. I think the general seeing was very still but at the finest level it was not the best. Interesting thing that I had to go much lighter on the Registax wavelet settings to avoid it looking overprocessed. This must be something to do with the individual frames being much more closely matching than normal. Views on the general colour balance appreciated. Cheers,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100221/MLw21Feb10.jpg>

○.....**Subject: Mars; 31st Jan, 1st March, 2nd March**
Received: Sat 06 Mar 2010 05:50:37 JST

Hi All, In case these are of interest, here are three Mars images. One is an image from just after opposition in

moderately poor seeing, that I have only just got around to processing. I also have two more recent offerings taken in difficult conditions with poor and very variable transparency- ie gaps in high and medium altitude cloud.

Seeing was good on the 1st March not so good on the 2nd. Best wishes,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100131/MLw31Jan10.jpg>
<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100301/MLw01Mar10.jpg>
<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100302/MLw02Mar10.jpg>

○.....**Subject: Mars Early on 5th March**
Received: Sun 07 Mar 2010 19:01:07 JST

Hi, Here is Mars from 5th March in seeing which was markedly inferior to that seen for Saturn which was much lower in the SE. I never have good seeing when

any planet lies to the SW-W which places it over the town centre. The dreaded 'edge-rind' effect is back which seems to be a combination of a type of seeing causing momentary doubling of the image combined with the planet being past/before opposition and giving a much higher contrast edge which produces a ringing effect in the camera. Dark Tharsis volcanoes and Olympus Mons, as others have pointed out. Cheers,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100305/MLw05Mar10.jpg>
Martin LEWIS (マーチン・ルイス St Albans Hts 英)

●.....**Subject: Mars: February 22, 2010**
Received: Tue 23 Feb 2010 12:34 JST

TEN YEARS AGO (175)

---CMO #229 (25 March 2000) pp2695~2714 ---

<http://www.hida.kyoto-u.ac.jp/~cmo/cmo/229/cmo229.html>

巻頭はCMO Mars Report (22)で、2000年二月後半から2000年三月前半までの観測報告が纏められている。この期間日本の天候は優れなかった。観測はいよいよ最終段階で、薄明中に捉えて二回出来るかと言うところになっていた。視直径

δも4秒角となり、黄雲の季節は続いていたが詳しい観測は不可能だった。観測報告も国内三名、国外から二名となった。次いで今号には1998/99 Mars CMO Noteが二編掲載された。Note (5) で取り上げているのは、「1999年五月上旬のウトピア朝雲」

"Morning cloud at Utopia evident in early May 1999" で、国内の観測をはじめHSTの画像も参照して論考している。Note (6) では、福井での懇談会の様子が、「1999年五月の第七回惑星観測者懇談会」

"7th Workshop of the CMO Observers held on 3 May 1999" として記録されている。CMO Fukuiのお二人の還暦祝いの赤いダウンベストの画像もある。内容はそれぞれ下記をクリックすれば辿れる。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmo/note/9905/05.html>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmo/note/9905/05j.html> (Japanese)

<http://www.hida.kyoto-u.ac.jp/~cmo/cmo/note/9906/06.html>

LtEは、外国からはDon PARKER (USA), Sam WHITBY (USA), Giovanni A QUARRA (Italy), Brian COLVILLE (Canada)、国内からは、伊舎堂弘(沖縄)、常間地ひとみ(神奈川)、尾代孝哉(和歌山)、比嘉保信(沖縄)、森田行雄(広島)、木村精二(東京: air-mail from London)の各氏からのものが紹介された。巻末には今号も筆者の「藤沢便り」があり、今も同じ症状だが花粉症で不調なのが伝えられている。

TYA(55)は、CMO#085 (25 Mar 1990)が紹介されている。廿年前の火星は朝方にあり、δは5秒角に達してそろそろ観測開始かという時期になっていた。季節は南半球の春分が過ぎたところだった。「ときどき "Something Old" 」が始まり、1回目には、アントニアディ(E Antoniadi)氏の1911年の黄雲の観測をとりあげている。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmo/229/tya055.html> 村上昌己 (Mk)

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MARS
 No. 229
 25 March 2000

OBSERVATIONS Published by the OAA Mars Section

CMO Mars Report # 22 (1998/99) OAA Mars Section
 2000. The occurrence of the 1975 great dust cloud is continued in this season, and also in 1998 at 309°Ls (on 17 Apr) the MCS found out a dust cloud at Chryse on the V1 landing site. The observations are however difficult at present because of the small diameter and the bad seeing condition. The central latitude φ was 26°S to 23°S, and the phase angle ε was from 25° to 19° during the period of.....今回は二月後半の観測はアメリカ側、三月前半が日本となっている。二月後半は天候がよくなかったが、沖縄の二月は日照時間が32.6時間とか、三月に入っても優れる。伊舎堂弘(弘)氏の観測は違わなかった。村上昌己(09)氏も何度の観測を証したが、スケッチには到らなかった。
 The latter half of February, Mars was well observed in the US, and in early March we had a few opportunities of watching at Fukui. At Ohiwasa however the weather remained poor (just the Sun shined only 32.6 hours in all February), and it didn't improve also in March, and so unfortunately ISHADOH failed to observe Mars this period. MURAKAMI also tried several times, but in vain.
 MELILLO, Frank J フランク・メリッロ (FM) 纽约 Holtsville, NY, USA
 1 Set of CCD Images (21 February 2000) 20cm SC Starlight Xpress MX-5
 MINAMI, Masatsugu 南 政次 (Mn) 福井 Fukui, Japan
 8 Drawings (1, 2, 3, 5, 10, 12, 13, 14 March 2000) 340, 400x20cm refractor*
 MORITA, Yukio 森田 行雄 (Mo) 廿日市 Hataksuka-ichi, Hiroshima Japan
 2 CCD Images (20, 27 February 2000) f/50x25cm spec equippt with an ST-SC
 NAKAJIMA, Takashi 中 島 孝 (Nj) 福井 Fukui, Japan
 6 Drawings (1, 3, 5, 13 March 2000) 340, 400x20cm refractor*
 PARKER, Donald C D'アルド・パーカー (DPK) 佛羅里達 Miami, FL, USA
 7 Sets of CCD Images (30/1 January; 11/12, 12/13, 19/20, 27/28, 28/29 February;
 29 February/1 March 2000) f/55x1cm spec equippt with a Lyux PC
 *福井市自然史博物館上天文堂 Fukui City Observatory

2695

Hi - I have attached my latest images of Mars February 22, 2010 to be posted. Thanks,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100222/FMI22Feb10.jpg>

○.....**Subject: Mars: March 1, 2010**
Received: Tue 02 Mar 2010 15:17 JST

Hi - I have attached my latest image of Mars March 1st at 5:00 UT to be posted. Thanks,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100301/FMI01Mar10.jpg>

○.....**Subject: Mars: March 6, 2010**
Received: Sun 07 Mar 2010 07:12 JST

Hi - I have attached my latest image of Mars March 6th at 5:54 UT to be posted. Thanks,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100306/FMI06Mar10.jpg>

○.....**Subject: Mars: March 9, 2010**
Received: Thu 11 Mar 2010 14:03 JST

Hi - I have attached my Mars images March 9, 2010 to be posted. Thanks,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100309/FMI09Mar10.jpg>

○.....**Subject: Mars: March 10, 2010**
Received: Thu 11 Mar 2010 14:05 JST

Hi - I have attached my latest images of Mars March 10, 2010 to be posted. Thanks,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100310/FMI10Mar10.jpg>

○.....**Subject: Mars: March 17, 2010**
Received: Fri 19 Mar 2010 13:38 JST

Hi - I have attached my latest images of Mars March 17, 2010 to be posted. Thanks,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100317/FMI17Mar10.jpg>

○.....**Subject: Mars: March 20, 2010**
Received: Mon 22 Mar 2010 13:52 JST

Hi - I have attached my latest image of Mars March 20, 2010 at 3:54 UT to be posted. Thanks,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100320/FMI20Mar10.jpg>

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

●.....**Subject: Mars 16./18./20.2.2010**
Received: Tue 23 Feb 2010 19:55:12 JST

Dear Masatsugu, 3 nights allowed imaging of mars, here are the results. On 18th, conditions have been poor, but i used the opportunity to experience with the new Astronomik 2c-Filter-Set. The old set was insufficient and had bad transmissions. With best wishes

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100216/RGh16Feb10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100218/RGh18Feb10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100220/RGh20Feb10.jpg>

○.....**Subject: Mars 7.3.2010**
Received: Tue 09 Mar 2010 01:20:29 JST

Dear Masatsugu, new stuff from germany.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100307/RGh07Mar10.jpg>

○.....**Subject: Mars 4.3.2010/21:12-21:20 UTC**
Received: Wed 10 Mar 2010 17:54:53 JST

.....Next images. Greetings

○.....**Subject: Mars 4.3.2010 / 19:13-19:25**
Received: Wed 10 Mar 2010 18:02:52 JST

... and the last package from that session. Greetings

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100304/RGh04Mar10.jpg>

○.....**Subject: Mars 10.3.2010**
Received: Fri 12 Mar 2010 08:24:13 JST

Dear Masatsugu, one more day to capture mars (under indifferent conditions). With best wishes

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100310/RGh10Mar10.jpg>

○.....**Subject: Mars 11.3.2010**
Received: Sat 13 Mars 2010 01:05:32 JST

Dear Masatsugu, after some days with clear sky weather becomes unsteady. Yesterday, just as clouds are covering the sky, seeing was surprisingly good and i got a set of images. Because of the daylight exposures (brigh blue channel!), contrast is low and the colours are a little bit strange. With best wishes

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100311/RGh11Mar10.jpg>

○.....**Subject: Mars 3./9. March**
Received: Tue 16 Mar 2010 15:46:45 JST

Dear Masatsugu, here is the remainder of my last mars images from march. Conditions on 9th march have been very poor. With best wishes

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100303/RGh03Mar10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100309/RGh09Mar10.jpg>

Ralf GERSTHEIMER (ラルフ・ゲルシュトハイマー
Habichtswald 徳)

●.....**Subject: Mars Drawings Kz 22, 23 & 24 Feb**
Received: Thu 25 Feb 2010 00:10:58 JST

2月22日、23日、24日のスケッチ計5枚を送信します。真冬のときのような毎日晴天という天候ではなくなってきていますが、日に日にシーイングが良くなってきて、細部が見えるようになってきました。ただ、油断するとスケッチ一枚に20分以上かかってしまいます。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100222/Kz22Feb10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100223/Kz23Feb10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100224/Kz24Feb10.jpg>

○.....**Subject: Mars Drawings Kz 3 March 10**
Received: Fri 05 Mar 2010 23:08:14 JST

3月に入っても天気はぐずついたままです。3月3日のスケッチ2枚を送信します。この日も、雲の合間にとったスケッチのため、詳細を観測することはできず、また、2枚目は定刻からずれてしまっています。火星が西に傾く時刻も早くなってきていますが、追えるところまで追おうと思っております。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100303/Kz03Mar10.jpg>

神崎 一郎 (Ichiro KOHZAKI 東久留米Tokyo)

●.....**Subject: Mars - Feb.23rd, 03:23ut**
Received: Thu 25 Feb 2010 02:35:09 JST

Hi Mr. Minami, This is my latest processed image of the 23rd of February. Four days of continueing rain but seeing was improving.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100223/EMr23Feb10.jpg>

○.....**Subject: Mars-Feb.24th, 28th**
Received: Tue 02 Mar 2010 01:58:17 JST

Hi Mr. Minami, These are my latest processed images from February 24th and 28th ut. Clear Skies.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100224/EMr24Feb10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100228/EMr28Feb10.jpg>

○.....**Subject: Mars-March 3rd, 00:50ut**
Received: Thu 04 Mar 2010 04:53:52 JST

Hi Minami, My latest session taken from March 3rd.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100303/EMr03Mar10.jpg>

○.....**Subject: Mars-March 3rd, 00:23ut**
Received: Sun 07 Mar 2010 23:11:39 JST

Hi Mr. Minami, This is an earlier image of 27 min. from my last post. Sorry for not submitting at the same time or on the same post. Clear Skies.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100303/EMr03Mar10.jpg>

○.....**Subject: Mars - March 12th, 01:27ut, 02:38ut**
Received: Sat 13 Mars 2010 09:14:10 JST

Hi Masatsugu, After eight days clouds and rain, Finally had a short session chance of imaging before clouds rolled in again. Two images 1hr 11minutes differences, Clear Skies.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100312/EMr12Mar10.jpg>

○.....**Subject: Mars-March 14th, 01:44ut**
Received: Thu 18 Mars 2010 00:59:12 JST

Hi Mr. Minami, This is my latest processed image from March 14th. Clear Skies

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100314/EMr14Mar10.jpg>

Efrain MORALES RIVERA

(エフライン・モラレス=リベラ Puerto Rico 波多黎各)

●.....**Subject: Re: Mars Images February 20th**
Received: Thu 25 Feb 2010 07:39:24 JST

Hi Martians, Some Mars observations. Seeing was reasonable, improving later in the session to very good indeed. I imaged over a five hour period and observing the steady brightening of Nix Olympica was fascinating.

During this session I guess the temperature reached approximately -5 degrees but the visual was easily the best I have seen Mars this apperition.

Here my best sets from the session (if of interest more sets here: Best regards to all

<http://maidenhead-astro.net/masgallery/thumbnails.php?album=20>

○.....**Subject: Re: Mars Images (March 2nd 2010.)**
Received: Sun 14 Mar 2010 03:04:15 JST

Hi all, Catching up with my observations. Reasonable seeing on the night but poor transparency. Very cloudy over the Tharsis region. Best regards

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100302/BKn02Mar10.jpg>

○.....**Subject: Re: Mars 4TH March**
Received: Fri 19 Mar 2010 07:12:04 JST

Sorry its a bit late - still catching up. Had some really good seeing on the 4th and bagged a good set. It was really interesting to see the Tharsis volcanoes poking out of the cloud. I have not witnessed this phenomena before. Tharsis appears heavily clouded and I think a thin bright line of cloud is showing over Arcadia (seen in the blue channel)! Fairly confident its not an artifact. Clear skies

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100304/BKn04Mar10.jpg>

Bruce KINGSLEY(ブルース・キングスレイ Brk 英)

●.....**Subject: Mars Images (February 20-21st, 2010.)**
Received: Thu 25 Feb 2010 07:59:39 JST

Hi all, Here some images from the 20-21st. Very good seeing. Sadly, due to a problem about 2/3 of the data i took was lost. On the upside, the seeing was best at the end, and those sets were recovered. An error occured moving the data from my laptop to USB hard drive - the directory with the data in i created on the USB drive had vanished when i went to check it the following morning! - even recovery software failed to detect it had even existed! I've really never seen anything quite like it....

Anyhow, some fine seeing on this night allowed clear views of the Elysium region, and Olympus Mons orographic cloud. Also note the various other delicate clouds across the disk.

http://www.damianpeach.com/mars09/2010_02_20-21rgbred.jpg
http://www.damianpeach.com/mars09/2010_02_20-21grnbllu.jpg

○.....**Subject: Mars Images (February 26th, 2010.)**
Received: Sun 28 Feb 2010 05:07:13 JST

Hi all, Here are some images from last night. Poor seeing. Extensive clouds over the disk, especially across Chryse, Ganges, Tempe etc. Olympus Mons is seen as a darker spot.

http://www.damianpeach.com/mars09/2010_02_26rgb.jpg

○.....**Subject: Mars Images (March 1st, 2010.)**
Received: Sat 06 Mar 2010 07:06:45 JST

Hi all, Some images from the 1st. Good seeing. Extensive morning clouds over Tharsis forming a weak ECB through Chryse. As Ian mentioned, the Tharsis volcanoes are dramatically dark.

http://www.damianpeach.com/mars09/2010_03_01rgb.jpg
http://www.damianpeach.com/mars09/2010_03_01red.jpg
http://www.damianpeach.com/mars09/2010_03_01green.jpg
http://www.damianpeach.com/mars09/2010_03_01blue.jpg

○.....**Subject: Mars Images (March 2nd, 2010.)**
Received: Sat 06 Mar 2010 09:44:01 JST

Hi all, Here are some images from the 2nd. Poor transparency and fair seeing. A similar aspect to the previous day with extensive tharsis clouds and a very dark Ascraeus Mons.

http://www.damianpeach.com/mars09/2010_03_02rgb.jpg

○.....**Subject: Mars Images (March 4th, 2010.)**
Received: Thu 11 Mar 2010 07:22:04 JST

Hi all, Some images from March 4th under good seeing. The tharsis volcanoes appear very prominent - as dark as i can ever recall seeing them in images. Extensive clouds over the disk, especially over tharsis and argyre. A weak ECB is also present.

http://www.damianpeach.com/mars09/2010_03_04rgb.jpg
http://www.damianpeach.com/mars09/2010_03_04red.jpg
http://www.damianpeach.com/mars09/2010_03_04green.jpg
http://www.damianpeach.com/mars09/2010_03_04blue.jpg

○.....**Subject: Mars Images (March 5th, 2010.)**
Received: Fri 12 Mar 2010 22:38:33 JST

Hi all, Here are some images from the 5th under fair seeing conditions.

http://www.damianpeach.com/mars09/2010_03_05rgbred.jpg
http://www.damianpeach.com/mars09/2010_03_05grnblue.jpg

○.....**Subject: Mars Images (March 6th, 2010.)**
Received: Sun 14 Mar 2010 02:21:29 JST

Hi all, Here are images from the 6th, under good seeing. Lots of clouds over the disk. The albedo collar of the summer NPC is faintly visible through the cap in Red light.

http://www.damianpeach.com/mars09/2010_03_06rgbred.jpg
http://www.damianpeach.com/mars09/2010_03_06grnblue.jpg

○.....**Subject: Mars Images (March 7th, 2010.)**
Received: Sun 14 Mar 2010 20:16:19 JST

Hi all, Some very good seeing this night. Not so much in the way of cloud activity though. The appearance of Mare Acidalium in Blue light is quite interesting - nothing at all like its appearance in Red light.

http://www.damianpeach.com/mars09/2010_03_07rgb.jpg
http://www.damianpeach.com/mars09/2010_03_07red.jpg
http://www.damianpeach.com/mars09/2010_03_07green.jpg
http://www.damianpeach.com/mars09/2010_03_07blue.jpg

○.....**Subject: Mars Images (March 11th, 2010 - Excellent seeing.)**
Received: Fri 19 Mar 2010 08:26:14 JST

Hi all, Excellent seeing during this ~1hr clear break in

an otherwise cloudy day. Though having shrunken to $\delta=11.0''$ some nice detail is visible across the disk, though cloud activity is much more quiet across this hemisphere.

http://www.damianpeach.com/mars09/2010_03_11rgb.jpg
http://www.damianpeach.com/mars09/2010_03_11red.jpg
http://www.damianpeach.com/mars09/2010_03_11grnblue.jpg

○ **Subject: Mars Images (March 14th, 2010.)**
Received: Sat 20 Mar 2010 06:23:40 JST

Hi all, Here are images from the 14th. Fair to good conditions. Hellas is fairly bright with cloud.

http://www.damianpeach.com/mars09/2010_03_14rgb.jpg
http://www.damianpeach.com/mars09/2010_03_14red.jpg
http://www.damianpeach.com/mars09/2010_03_14green.jpg
http://www.damianpeach.com/mars09/2010_03_14blue.jpg

○ **Subject: Mars Images (March 15th, 2010.)**
Received: Sat 20 Mar 2010 08:15:53 JST

Hi all, Here are images from the 15th. Poor seeing. The Elysium orographic cloud is bright near the limb.

http://www.damianpeach.com/mars09/2010_03_15rgb.jpg
 Best Wishes

Damian PEACH (デミアン・ピーチ Brk 英)

● **Subject: Mars Pics from 2010/02/24**
Received: Fri 26 Feb 2010 05:58:03 JST

Hi all, This is my current Mars picture from February, 24th, 22.10 GMT. There are a lot of clouds.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100224/JLr24Feb10.jpg>
 Scope: Newtonian 30cm@f30; Location: Hormersdorf; Seeing: 6-7/10; DMK21BF04 camera; Astronomik RGB filters; Seeing 7/10; Best regards,

Joachim LORENZ (ヨハヒム・ロレンツ Hormersdorf 徳)

● **Subject: Mars Image - February 22, 2010**
Received: Sat 27 Feb 2010 00:07:27 JST

Gentlemen, Attached is my Mars image from February 22. Regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100222/PGc22Feb10.jpg>

○ **Subject: Mars Image - February 21, 2010**
Received: Sat 27 Feb 2010 02:46:00 JST

Gentlemen, Attached is my Mars image from February 21. Regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100221/PGc21Feb10.jpg>

○ **Subject: Mars Image - March 1, 2010**
Received: Thu 04 Mar 2010 14:12:52 JST

Gentlemen, Attached is my Mars image from March 1.
<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100301/PGc01Mar10.jpg>

○ **Subject: Mars Image - March 2, 2010**
Received: Sun 07 Mar 2010 02:11:57 JST

Gentlemen, Attached is my Mars image from March 2.
<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100302/PGc02Mar10.jpg>

○ **Subject: Mars Images - March 6 & 7**
Received: Thu 11 Mar 2010 14:32:04 JST

Gentlemen, Attached are my Mars images from March 6 and 7. Regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100306/PGc06Mar10.jpg>
<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100307/PGc07Mar10.jpg>

○ **Subject: Mars Image - March 10, 2010**
Received: Sun 14 Mar 2010 05:35:39 JST

Gentlemen, Attached is my Mars image from March 10.
<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100310/PGc10Mar10.jpg>

Peter GORCZYNSKI (ピーター・ゴルチンスキ CT 美)

● **Subject: Mars 2010 02 24 h. 20:26 u.t.**
Received: Sat 27 Feb 2010 19:27 JST

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100224/VAm24Feb10.jpg>

○ **Subject: Mars 2010 03 12 h. 20:26 u.t.**
Received: Tue 16 Mar 2010 03:49 JST

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100312/VAm12Mar10.jpg>

○ **Subject: Mars 2010 03 12 h. 20:56 u.t.**
Received: Tue 16 Mar 2010 23:04 JST

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100312/VAm12Mar10.jpg>

○ **Subject: Mars 2010 03 12 h. 21:23 u.t.**
Received: Wed 17 March 2010 21:37 JST

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100312/VAm12Mar10.jpg>

○ **Subject: Mars 2010 03 12 h. 18:31 u.t.**
Sent: Friday, March 19, 2010 10:33 PM

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100314/VAm14Mar10.jpg>

Vittorio AMADORI

(ガィットリオ・アマトッリ Soiano del Lago 義)

● **Subject: Mars on 20th Feb.**
Received: Sun 28 Feb 2010 06:35:43 JST

Dear all, Here is the first image of Mars I have processed from the data obtained on the night of 20th February 2010. Once again bright orographic clouds lurk over Olympus Mons and the other Tharsis volcanoes. Blue haze over Aetheria and Aethiopia and over Mare Chronium towards the South Pole. Best wishes,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100220/PGb20Feb10.jpg>

○ **Subject: Separate RGB files**
Received: Sun 28 Feb 2010 06:53:43 JST

Dear all, You may be interested in seeing the separate RGB files (attached: actual size).

Peter GARBETT (ピーター・ガーベット Sharnbrook 英)

● **Subject: Mars, March 1, 2010**
Received: Tue 02 Mar 2010 02:06:07 JST

Hi all: My best Mars from last night. I had been having trouble with the 12.5" Cass holding collimation, and couldn't figure out why until I heard a "clunk" when I picked up the OTA one day! Took the cell out and found that one of the edge supports was loose and had shifted, which let the mirror move about 3/8" laterally! Fortunately, I never point my OTAs to the ground, so it couldn't fall out! ...Got the problem corrected, and got the collimation very close to perfect. Seeing limited my ability to fine-tune the collimation, but I do think it is pretty good. All videos were shot at the f/23 Cass focus, so no additional glass in the train. Best results were with processing and enlarging by a factor of two in stacking

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100301/TPk01Mar10.jpg>

Tim PARKER (ティモシー・パーカー NASA 美)

● **Subject: mars sketch 01/03/10**
Received: Tue 02 Mar 2010 08:30:20 JST

Hi, here is my sketch from 1 march. Time: 21h30 UT instrument: 12" f/5 dob; magnification: 536x; seeing: very good to excellent; filters: blue, green, orange, neutral density. Greetings,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100301/KSm01Mar10.jpg>

○ **Subject: mars sketch 07/03/10**
Received: Wed 10 Mar 2010 01:35:34 JST

Hi, here is my sketch from 7 march.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100307/KSm07Mar10.jpg>

○.....**Subject: Mars sketch 16/03/10**
Received: Fri 19 Mar 2010 01:46:57 JST

Hi, here is my sketch from 16 march.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100316/KSm16Mar10.jpg>

Kris SMET (クリス・スメト Belgium 比利时)

●.....**Subject: (no subject)**
Received: Tue 02 Mar 2010 21:06:08 JST

Dear All, Thought I'd return to my 10" Newt as a trial for this one. Conditions were good, occasionally very good. Olympus Mons and the three other large Tharsis volcanoes are seen on the right hand side of the image, not as bright clouds this time, but dark areas. Also visible, a large faint bluish cloud enveloping not only the volcanoes but also a large area to the North (actually shaped a bit like Wales!). This seems to contain the remains of a roughly circular blob of cloud which on 20/02 was seen as a very bright area (on the opposite limb). Enjoy the sunshine! All the best

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100301/SKd01Mar10.jpg>

Simon KIDD (サイモン・キッド Herts 英)

●.....**Subject: Mars 25-February and 28-February**
Received: Wed 03 Mar 2010 02:10:50 JST

Dear Masatsugu, Attached are some Mars images from February 25th and 28th. The images taken on the 28th show some clouds over the Tharsis region and Nix Olympica. I've been struggling with the weather here during this apparition. There have been lots of cloudy nights and when it clears after a frontal passage the seeing is often not very good. I hope to have some good nights later in the week here.

I hope you are doing well. Best regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100225/WF125Feb10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100228/WF128Feb10.jpg>

○.....**Subject: Mars 04-March**
Received: Fri 05 Mar 2010 10:03:03 JST

Dear Matasugu, Thanks for the note and reminder about the orographic clouds over Nix Olympica. Also, I hope the server wasn't too damaged and you guys don't have too much trouble getting it restored!

In the meantime, I am attaching a set of images taken on March 4th. Seeing was average last night but I managed to get at least one acceptable image set.

Best wishes,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100304/WF104Mar10.jpg>

Bill FLANAGAN (ビル・フラナガン Houston TX 美)

●.....**Subject: Mars last night, March 2**
Received: Wed 03 Mar 2010 9:40 JST

Probably the best seeing on Mars from this location for the current apparition, I doubt that I'll get anything better than this until Mars is a bit higher in the sky...

Image is IR(742nm) - G - B. The polar cap is over-exposed due to the excessive processing required.

<http://www.acquerra.com.au/astro/gallery/mars/20100302-113620/large.jpg>

Anthony WESLEY (アンソニー・ウェズリー NSW 澳)

●.....**Subject: 火星観測画像の報告について**

Received: Thu 04 Mar 2010 05:24 JST

村上幹事様、東亜天文学会会員 奥村雅之と申します。火星の画像を撮影しましたので、別添のとおり報告します。観測地 美星天文台; 101cm 望遠鏡カセグレン焦点 + SONY製ビデオカメラ DCR- DVD403; 観測状況: 観測時間中は快晴でシーイングは4/10から5/10でした。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100206/Om06Feb10.jpg>

奥村 雅之 (Masayuki OKUMURA 名古屋 Aichi)

●.....**Subject: Mars March 03**
Received: Thu 04 Mar 2010 11:44:11 JST

As some of you know, we are having a record wet winter here in AZ. This is the best I've been able to get on Mars so far. Not nearly as good as the last apparition.

http://www.lpl.arizona.edu/~rhill/images_mars/Mars_20100303_0706finA.jpg

○.....**Subject: Re: Mars 1 March**
Received: Sun 07 Mar 2010 15:57:26 JST

Geeze Don, you really know how to hurt a guy!

○.....**Subject: Re: RE: Mars 1 March**
Received: Sun 07 Mar 2010 16:50:07 JST

Curious. The Minor Planet Center at Harvard Center for Astrophysics was hacked so badly in mid-February that they have had to resort to a mirror for all their computer services. Have any other astronomical sites been hacked?

Rik HILL (リック・ヒル Tuscon AZ 美)

●.....**Subject: Mars 04-Mar-2010 v. dark Volcanoes**
Received: Fri 05 Mar 2010 20:41:36 JST

Hi all, Here's the best of 3 images on Mars from last night. Very dark Volcanoes visible near RH limb, especially in the green. Best Regards

<http://www.astro-sharp.com/images/mars2010/Mars-2010-03-04-21-20-IDS.jpg>

Ian SHARP (イアン・シャープ WS 英)

●.....**Subject: Mars 4thMarch**
Received: Sat 06 Mar 2010 00:35:30 JST

Hi Guys; Here are a couple of images from the 4th, seeing was jumpy but "regible". I was struck by the large expanse of cloud in these two IRGB images. Best wishes

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100304/DTy04Mar10.jpg>

Dave TYLER (デヴィッド・タイラー Bkh 英)

●.....**Subject: Re: Mars 04-Mar-2010 v. dark Volcanoes**
Received: Sat 06 Mar 2010 02:54:49 JST

Dear Ian; Thanks for the nice image. Two nights ago (March 3) I also observed visually and had a good steady image at x410 with my 16-inch Dall Kirkham Cassegrain, at a little lower CM longitude, and I too could see Ascræus Mons off the terminator as a dark patch surrounded by the bright Tharsis morning clouds. It was satisfying to see this, because such observations were made at a similar seasonal date in both the 1995 and 1997 apparitions: see our BAA reports available as pdf files at our website <http://www.britastro.org/mars>, for example. The phenomenon was also seen well in 2003 and in several past oppositions. Good wishes

Richard McKIM (リチャード・マッキム Peterborough 英)

●.....**Subject: Re: [SPAM] Mars Images (March 1st, 2010.)**
Received: Sat 06 Mar 2010 20:35:20 JST

Hi, it's been a while since I've made a recording with my telescope. Here is one of Mars on March 1 2010.

Regards

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100301/RBs01Mar10.jpg>

Richard BOSMAN (リシャルト・ホスマン Enschede 蘭)

●.....**Subject: Mars 20100304 21:30 GMT**
Received: Sat 06 Mar 2010 21:01:21 JST

Hello, I send to you a new picture that I obtained on the evening of 4th March of 2010 at 21:30 GMT.

Yours sincerely

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100304/FFn04Mar10.jpg>

Francisco José FERNÁNDEZ GÓMEZ

(フランシスコ・ホセ・フェルナンデス・ゴメス Ourense 西班牙)

●.....**Subject: Without telescope**
Received: Sat 06 Mar 2010 21:34:07 JST

Hi guys, Just a few news on my side. The mirrors of my 250 mm cassegrain have been sent to Ottiche Zen in Italy, for building of a new secondary mirror (the actual having turn-down edges). I am so without telescope currently and not able to make images. It will possibly not last long at all and I'm hoping to have the my mirrors back for the end of the month. In the meantime, I wish you all nice observations of Saturn and Mars!

○.....**Subject: Re: RE: Without telescope**
Received: Sun 07 Mar 2010 03:22:23 JST

Dear Masatsugu, The hope of getting a "new" instrument as good as the former mewlon 210 largely annihilates the inconvenient of being without telescope in my mind. These short weeks will be quickly forgotten, if so! I do had some nice occasions to observe during the last weeks but that perspective of improvement really made me tired of the lower quality of the images. As well, the SAF commission receives a great deal of good observations and I just now that nothing will be lost without me... and I can still comment and publish things (did a few ones on our website). As you say, I may still have it back for the end of the Mars apparition with more interesting things to see. Best

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

●.....**Subject: Re: IWC MO Abstract**
Received: Sun 07 Mar 2010 07:35:54 JST

Dear Masatsugu, I appreciate your comments--now I am the one to apologize, as I have been out of town for the past few days. I did not have a chance to spend much time with the IWC MO Symposium resume. It was really meant for that purpose--not for publication-- and was really a drafting of some ideas for the book that I am doing with Richard McKim and Randall Rosenfeld. When you realize that, you will understand why "Ki" is present but neither "Sho" nor "Ten" nor "Ketsu," since my purpose was merely to present a rise--like the curtain going up for a drama, the overture for an opera, whose purpose is merely to settle the audience and try to gain their attention--before the main actors or virtuoso singers,

Maria Lane, Richard McKim, Randall Rosenfeld, Greg Mort, and the rest--the real "stars" of the occasion--came forth. I intentionally did not wish to present development or conclusions at the outset since that would be putting the cart before the horse, and I also wished to assume a modest and unassuming role. With such talent it would have been presumptuous of me to have attempted more. And so it may, under the circumstances, not be suitable to publish this fragment on the web page. I leave it to your judgment. I am indeed working on developing its arguments further in the book mentioned above--and hope to return to the important question you understand so well, which is the way that we must try to work out a 3D picture of a planet from the 2-D image in the eye-piece. To do so, however, within the present introductory essay would be putting new wine in old bottles and I do not think worth the trouble. Nevertheless, your comments are indeed very helpful, and I thank you for them.

I just returned from New Orleans. I had never been to Louisiana (and to this day I have never been to the states of the "Deep South," So. Carolina, Alabama, Arkansas, and Mississippi), but was enticed there by friend (a psychologist and jazz musician who lived there for several years), and my family accompanied me as well. I experienced a delightful immersion in jazz--and Cajun cooking, oysters, catfish poboy sandwiches, and Louisiana hotsauce--but also managed to get to Tulane University, whose special collections have sixteen volumes of the "Father" of amateur studies of the Moon and Mars in the US and Japan, W. H. Pickering. (They had not been consulted for fifteen years; the last one to do so was Howard Plotkin, when he was working on the Pickering brothers.) Pickering's granddaughter, Margaret Pickering Zemurray, married into the Zemurray family, which was fabulously wealthy--they were important in the United Fruit Company (now Chiquita) which was involved in destabilizing Latin American governments for much of the 20th centuries (see Howard Zinn's "A People's History of the United States" for details), but the Zemurrays were also generous donors to Tulane University. These Pickering notebooks are records of his work in Jamaica--traces of his earlier work are in the Pickering papers at Harvard University Archives--and suggest that after he finished his book on the Moon about 1903, he became increasingly isolated, eccentric, and stagnant intellectually; much of his work was concerned with documenting changes in albedo features in lunar craters, most notably Eratosthenes, and with making routine meteorological observations (including records of several hurricanes). There is very little about Mars. It is clear that by the time Walter Haas came to visit in 1935--he was then seventy-seven, and increasingly poor health--he did very little (if any) observing, and he was still flogging the same dead horses he had thirty years earlier. Above all he never gave up his ideas of lunar vegetation. In the late 1920s, he visited Mount Wilson--whose potential for an observatory he himself had been first to appreciate during a site visit

there forty years earlier. This was just about the time when Hubble was classifying the galaxies and working out the expanding universe. Pickering was invited to observe with the 100-inch reflector. And what did he look at? The lunar crater Plato!!!!

Hope you are still observing the favors of the Red Planet. Best,

Bill SHEEHAN (ウイリアム・シーハン MN 美)

●.....*Subject: Mars 1 March*
Received: Sun 07 Mar 2010 13:09:50 JST

Hi All, I have attached some RGB Mars images from 1 March. Numerous clouds are present. Best,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100301/DPk01Mar10.jpg>

○.....*Subject: RE: RE: Mars 1 March*
Received: Sun 07 Mar 2010 15:22:06 JST

Thank you, Masatsugu. I am sorry that you have problems with the web site -- it is the finest source of Mars images and information! Hope all is well with you. Best,

○.....*Subject: Mars 15 March*
Received: Thu 18 Mar 2010 05:37:09 JST

Hi All, I have attached RGB images of Mars from 15 March. There was moderate violet clearing, haze over Xanthe-Chryse, and a bright cloud in Tempe. Best,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100315/DPk15Mar10.jpg>

Don PARKER (ドン・パーカー Miami FL 美)

●.....*Subject: Mars obs 05th from SMK*
Received: Sun 07 Mar 2010 21:32 JST

Good afternoon, My contribution about mars last 05th. EBC clouds strong and the NPC activity. Have good receipt. Best regards

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100305/SMk05Mar10.jpg>

○.....*Subject: mars obs 16th from SMK*
Received: Thu 18 Mar 2010 05:29 JST

Good evening, Here are my last reports with various scopes after the 100mm badly given. the 1st sketch was with the 10", so useless, all the others with the 6" cassegrain rather useful for a minimum. Think the seeing conditions seems worldwide. Up to you. Best regards

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100316/SMk16Mar10.jpg>

○.....*Subject: Mars obs 21st march from SMK*
Received: Mon 22 Mar 2010 06:24 JST

Dear observers, Here is the last obs of mars of to-day. Was outside home so that the 127mm cassegrain was used but usefully. Always limited sky stability on the period. Anyway this matter for the mars survey.

Have good receipt. Best regards

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100321/SMk21Mar10.jpg>

Stanislas MAKSYMOWICZ

(スタニスラス・マクシモウイッチ Ecquevilly 法)

●.....*Subject: Re: message attached*
Received: Sun 07 Mar 2010 21:56:45 JST

Dear Masatsugu, Sorry I forgot to convert the file. It is a copy of a letter enclosed in a small package that I mailed to you. Here is what I sent you:

March 3, 2010

Dear Masatsugu, Today I sent to you by air mail a copy of a book of poems that I recently published.

This is a gift from me to you. If you like it, good! If not, it is just as well, and you are still my friend and teacher about Mars. "My" poet, Robert Frost, liked to say that poetry gets lost in the translation, and he was right. The poems may not mean anything to you, but don't worry about it. In the words of another of my favorites, Auden, "poetry makes nothing happen."

I am continuing to recover from my car wreck, and I hope to return to work in about two weeks. Best wishes,

○.....*Subject: Re: message attached*
Received: Sun 07 Mar 2010 23:53:29 JST

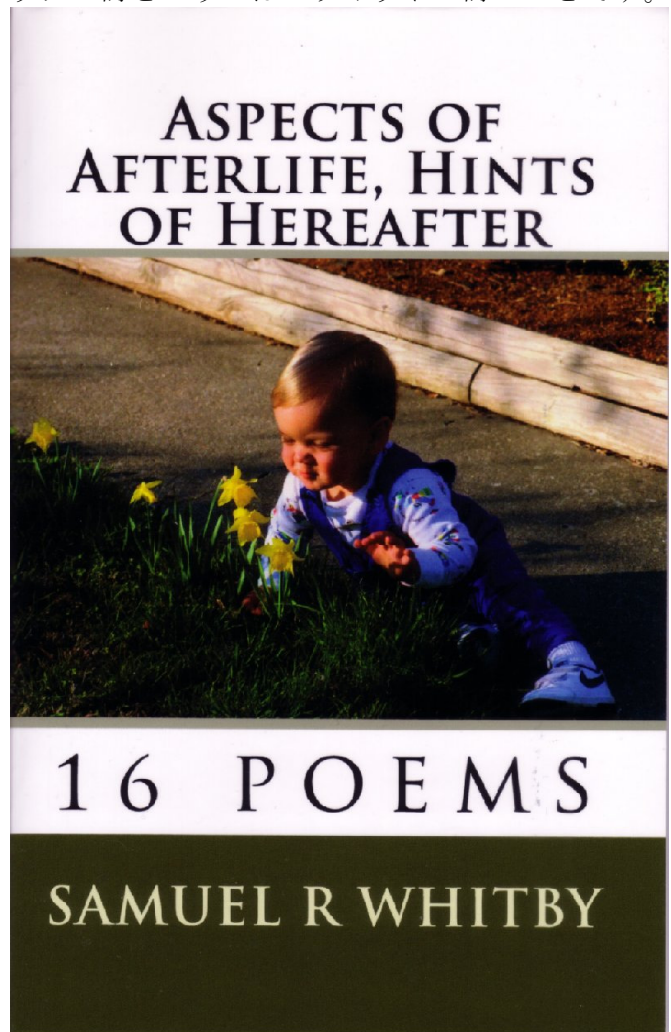
Dear Masatsugu, Mrs. Whitby insists that I inform you that she "loves Toyotas." She was pleased that you like the Prufrock poem, for it is one of her favorites. I have heard recordings of Auden reading, and he was a good reader as well as a good writer. It must have been a real treat to hear Spender.

Please give Ms. Siegel our wish for her full recovery.

Best wishes,

Sam WHITBY (サミュエル・ホイットビー Hopewell VA 美)

(註) ホイットビーさんの詩集です。58頁に16の詩が収められています。文面に出てくるプルフロクの詩というのはエリオットの詩のことです。



●.....*Subject: 南 政次先生*
Received: Sun 07 Mar 2010 23:07:56 JST

近内令一です。先日はメール有難うございました

た。また1月26日付でいただいたメールに返信差し上げておらず大変失礼申し上げます。

長年務めた地域歯科医師会長職(ハードな雑用係です)を今限りで辞任できることになり、その引継ぎで日夜多忙を極めております。

南先生が村山先生のお宅でコピーされた私のスケッチや写真の掲載された雑誌、妹が実際の火星像と私のスケッチを見比べて『あら、お兄ちゃんのスケッチ随分控えめね!』と言ったエピソードを含めて、何かの雑誌に書いたことを思い出しましたが、スカイウォッチャーだったか何だったかよく分かりません。ただ著作権の問題もそのときクリアできたことは記憶にありますので、現在もこの点に関しては全く問題ないと思われま

す。IWCMOのトークショウのWebへの草稿拝読いたしました。非常に興味深く、楽しいoral presentationの熱気に溢れていて、聴衆の方々の感嘆のどよめきやため息が伝わってくるようです。髪の毛の黒々ふさふさした村山先生と、ご指摘通り鶴田浩二ばりの美男子の木辺先生が並んでおられる写真には涙が出そうでした。私関係の資料のデータ等で訂正の必要な箇所は見当たりませんでした。中村要さんがピッカリング教授から手紙をもらった件のところのFor exampleとhe…の間の空白が詰まっているのが目にとまりました。

『突如として大彗星のごとく現れ、あっという間に消え去った優秀な観測者』と過分の形容で紹介いただきまして、非常に光栄に感じますとともに、面映い思いもあります。自分自身をMars observerと思ったことはありません。Mars glimpserでしたでしょうか。私の本性はかなり筋金入りのTelescope makerであったと最近思います。物心付いたころには近所の眼鏡屋に上がり込んで単レンズをボール紙で巻いて望遠鏡を作って色々覗いていました。小学校に入って、木辺先生や星野先生の著書を頼りに鏡面研磨を始め、中学生になって上野の科学博物館の『村山サロン』に入り浸り、村山先生に直接鏡面研磨の指導を受けるようになりました。これが大学2年(歯科大の教養課程)まで続きましたが、その間村山先生や海老沢先生の火星眼視観測の現場にご一緒させていただく機会がけっこうありました。今でも目に浮かびますが、バターナイフグリップで持った鉛筆を軽やかにサラサラと運び、擦筆を使わずに指先でささっとぼかして『よし、出来た』とあっという間にスケッチを仕上げる村山先生。恐ろしい集中力で火星を睨み付け、ペンホルダーグリップの鉛筆(もちろん村山先生とともにマルスステットレル)を休みなく動かして、下絵を付けるわけでもなく、階調豊かで立体感に溢れたかなり濃い(黒っぽい)見事な火星スケッチを瞬く間に完成させる海老沢先生。『堀口君も描いてごらん』と言われ『おう、この子は筋が良い。火星の模様のプロポーションはちょっとおかしいけど、怪しいものは描いてないし、雰囲気再現するセンスはゼアグート(村山先生)、ウィ、トレビアン(海老沢先生)』とおだてられ、火星スケッチを始めました。従って私の火

星スケッチは両先生の影響を強く受けています。

因みに村山先生はT. E. R. Phillips師やF. J. Hargreaves氏の惑星スケッチのタッチと、生涯に渡って等質のスケッチを取り続けた姿勢に感銘した、と言っておられました。

海老沢先生はLA PLANÈTE MARSを読むためにアテネフランセに通われ、背広の裏地に芸名『庵燈似也児』の刺繍を入れられるお方でしたから説明不要であります。

天体望遠鏡の光軸上の分解能、コントラストの性能を吟味するのに、惑星像、特に火星像は格好の天然低コントラスト分解能テストチャートであると当時は感じていました。村山先生の影響で写真も撮りましたが、テスト所見を表現するのに眼視スケッチが当時は最良の方法だったと思います。村山先生からは『あんたは鏡面研磨にも才能があるけど、木辺さんや池谷薫君の上には行けないよ。もう1~2シーズン練習すれば模様のプロポーションも正確になるから、homogenousなスケッチを永く取り続ける眼視観測者になってはどうかね』と強く勧められましたが、不肖の弟子で非行に走ってしまい、村山先生はややがっかりされたようです。

長々と書いてしまいましたが、そろそろめます。観測所を整理していたら、望遠鏡趣味について惑星像とからめて随分前に書いた雑文が出てきましたので郵送させていただきます。酒の肴に御笑読下さい。今後とも宜しくご指導いただけますようお願い申し上げます。

近内 令一 (Reiichi KONNAI 福島 Fukushima)

○.....Subject: Mars, 2010 March 6
Received: Mon 08 Mar 2010 06:28:43 JST

Dear Masatsugu and Masami, I hope you are well. Similar to many other locations, we've had an extremely cold and long winter with much too much snow (71 cm). Many clear mornings have been too cold to get out and do Mars imaging. We've had a few mornings with as low as -29°C -- but now spring is finally lingering on the horizon. Sending here my first usable Mars image for this apparition. It was taken last night at -14°C. Syrtis Major is bright at the limb, N Hellas is also a slightly light and small patch in the haze. The other three times I've tried Mars imaging this apparition the seeing has been too lousy to produce anything useful. I hope to continue following the favourite planet until summer dusks get too bright. Many thanks for sending me the *Communications* -- they are always interesting reading and very newsworthy and well summarized documents.

Best regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100306/JWr06Mar10.jpg>

Johan WARELL (ヨハン・ワアレツル Vänge 瑞典)

○.....Subject: 2010-03-08 Mars
Received: Mon 08 Mar 2010 09:44:09 JST

MARS DRAWING: 16-in (41cm) f/6.9 Newtonian, Mag: 280x; Mars 08, 2010, 0000 - 0010 UT: First observation in several years, not stable on my feet. Nothing

unusual on Mars; Morning limb haze and clouds. NPR hazy. Evening clouds and haze.

Had to replace drive corrector and balance telescope. Took time away from observing, got tires and went toward bed.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100308/JBs08Mar10.jpg>

○.....**Subject: 2010-03-10-JDB-2**
Received: Thu 11 Mar 2010 09:27:16 JST

Sky cleared and seeing turned very good. Telescope maintenance, design and construction of new drive corrector complete and a miracle it all works! Still unsteady with one foot on ladder and one on platform, my knee replacement recovery coming along well, but not the young observer I once was!

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100310/JBs10Mar10.jpg>

Jeff BEISH (シエフ・ヒッシュ Lake Placid FL美)

●.....**Subject: Re: Greg Mort in March**
Received: Fri 12 Mar 2010 00:55:12 JST

Hi Masatsugu, Thanks for sending this fabulous information. Greg is an amazing artist! Best,

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

●.....**Subject: Mars 16 March, 2010**
Received: Thu 18 Mars 2010 02:45:25 JST

Fair conditions early, then rapidly declining seeing. Nothing particularly out of the ordinary this evening; Syrtis blue cloud was prominent. Clear skies,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100316/SWk16Mar10.jpg>

Sean WALKER (シヨン・ウォーカー S&T 美)

●.....**Subject: Mars 2010/03/15**
Received: Thu 18 Mar 2010 08:41 JST

Hello. I send you my last Mars images.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100315/LAz15Mar10.jpg>

Luis Miguel AZORÍN ALBERO

(ルイス=ミゲル・アソリン=アルベロ Elda, Alicante 西班牙)

●.....**Subject: Mars Observation 19 March 2010**
Received: Mon 22 Mar 2010 11:39:29 JST

Hello, Please find attached a recent observational sketch of Mars. Due to the unusually severe winter here, this is my first observation since Feb 2nd. Notes are in this message and with the sketch. Thank you,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100319/MRs19Mar10.jpg>

Michael ROSOLINA (マイク・ロソリーナ WV 美)

☆☆☆

Apology: we are sorry our hida-server was stuck for one week from 3 March because of a serious cracking. Fortunately our old Site http://www.mars.dti.ne.jp/~cmo/oa_mars.html worked for the CMO Mars Gallery during the period. We are so going to build a Mirror Site in the above to take refuge in case the main server is attacked or in server maintenance. (Webmaster of the CMO)

シー・エム・オー・フクイ

中島 孝 Nj

★前回報告以降、佐藤 健(433)様よりカンパを頂戴しました。有難うございました。不一
★前号はPDF掲載と同時に2月25日に福井で印刷・丁合し、海外も国内も即日発送しました。藤沢(Mk氏)、横浜(Tsさん)には27日、広島(Mo氏)、宗像(As氏)には28日に配達されたようです。不一
★OAA会員の皆さまへ：去る2月20日に大阪にてOAAの協議員会が開かれ、南(Mn)氏も参加されました。協議員会は成立し、議長選出の後修復に向けていろいろ議論がなされたようです。私(Nj)はMn氏から個人的にお話しは幾らか伺っていますが、『天界』には何の報告もなされないのはわれわれ一般会員にとって不思議なことです。機関誌は議事録も含めるべきとわれわれは考えます。不一

☆ **Kasei-Tsushin CMO** (http://www.hida.kyoto-u.ac.jp/~cmo/cmo/oa_mars.html)

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Takashi NAKAJIMA and Akinori NISHITA

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☆ Any e-mail to CMO is acknowledged if addressed to

cmo@mars.dti.ne.jp (Masami MURAKAMI at Fujisawa)

vzv03210@nifty.com (Masatsugu MINAMI at Mikuni-Sakai)

☆ Usual mails to CMO are acknowledged if addressed to

Dr Masatsugu MINAMI, 3-6-74 Midori-ga-Oka, Mikuni, Sakai City, Fukui, 913-0048 JAPAN

☎913-0048 福井縣坂井市三國町緑ヶ丘3丁目6-74 南 政次 (☎/FAX 0776-82-6222)

