

## MARS

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## OBSERVATIONS

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## CMO 2009/2010 Mars Report #12

OAA Mars Section

## CMO Mars Observations during the Second Half of January 2010

from 16 January ( $\lambda=038^\circ\text{Ls}$ ) to 31 January 2010 ( $\lambda=046^\circ\text{Ls}$ )

2010年一月後半(16 Jan~31 Jan 2010)の火星面観測

We treat this time a third fortnight report of the CMO Mars produced during the period from 16 January ( $\lambda=038^\circ\text{Ls}$ ) to 31 January 2010 ( $\lambda=046^\circ\text{Ls}$ ) in which we met the days when the planet was closet to the Earth on 27 January ( $\lambda=043^\circ\text{Ls}$ ) and at opposition on 29 January. The apparent diameter  $\delta$  went up from 13.8" to 14.1" (maximal). The central latitude was from  $17^\circ\text{N}$  down to  $15^\circ\text{N}$ . The defect of illumination was a bit, and the phase angle was from  $12^\circ$  to  $3^\circ$ . The apparent declination  $D$  was very high: from  $20.5^\circ\text{N}$  to  $22.25^\circ\text{N}$ .

♂.....今回は三回目の半月レポートであるが、報告期間は一月後半16 January ( $\lambda=038^\circ\text{Ls}$ )から31 January 2010 ( $\lambda=046^\circ\text{Ls}$ )となる。期間末27Janには最接近、29Janには衝となったので、観測数は増えていると思う。但し小接近なので食指の動かなかった観測者も見掛ける。16Janには視直径 $\delta$ は13.8"であったが、最大視直径は14.1"となった。中央緯度は $17^\circ\text{N}$ から $15^\circ\text{N}$ に落ちた。欠けは $12^\circ$ から $3^\circ$ 止まりであった。視赤緯 $D$ は $20.5^\circ\text{N}$ から $22.25^\circ\text{N}$ へと更に高くなった。日本の天候は矢張り弱い西高東低型が支配していたが、高気圧が張り出すこともあった。しかし、二月に入って西高東低が強くなっている。

♂..... We received the observations this time 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

10 Sets of RGB + 10 IR Images (17, 20, 28, 29, 31 January 2010)  
36cm SCT @f/36, 55 with a DMK21AU04

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

1 Set of RGB Images (17 January 2010) 36cm SCT with a SKYnyx 2-0

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

2 Colour Images (18 January 2010) 25cm speculum @f/30 with a ToUcam Pro II

**BRUCE, Ian イアン・ブルース (IBr)** 英国 Maidenhead, UK

1 Colour Image (17 January 2010) 36cm SCT @f/40 with a SKYnyx2-0

**BUDA, Stefan ステイーファン・ブダ (SBd)** メルボルン Melbourne, Australia

1 Set of RGB + 1 Colour Images (23, 27 January 2010) 40cm Dall-Kirkham with a DMK21AU04

**CASQUINHA, Paulo パウロ・カスキニャ (PCq)** ポルトガル República Portuguesa

2 Sets of RGB Images (29, 31 January 2010) 36cm SCT with a SKYnyx 2-0M

**EDWARDS, Peter ピーター・エドワーズ (PEd)** 英国 Horsham, West Sussex, UK

2 Colour Images (26, 29 January 2010) 28cm SCT @f/30 with a DMK21AU04

**FERNÁNDEZ GÓMEZ, Francisco José**

フランシスコ=ホセ=フェルナンデス=ゴメス(FFn) オウレンセ Ourense, España

2 Colour Images (24, 25 January 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

2 Sets of LRGB Images (18, 22 January 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 Images (17 January 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

1 Set of RGB + 1 IR Images (26 January 2010) 32cm speculum @f/27 with a DMK21AF04

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

8 Colour + 1 R + 7 B Images (16,~19, 23/24, 24 January 2010)

28cm SCT @f/30, 37 with a DMK21AU04.AS

**GORCZYNSKI, Peter ピーター=ゴルチンスキー (PGc)** コネチカット Oxford, CT, USA

4 Sets of LRGB + 4 IR Images (17, 23, 24, 28 January 2010) 36cm SCT @f/34 with a DMK21AF04

**GRENNAN, David デイヴィッド=グレンナン (DGn)** アイルランド Dublin, Ireland

1 Set of RGB Images (30 January 2010) 36cm SCT @f/22

**HERNANDEZ, Carlos E カールロス=ヘルナンデス (CHr)** フロリダ Miami, FL, USA

5 Sets of Colour Drawings (18, 20, 24, 28, 29 January 2010)

300, 390, 433×23cm Maksutov-Cassegrain

**KIDD, Simon D サイモン=キッド (SKd)** 英国 Welwyn, Herts, UK

1 Colour Image (29 January 2010) 36cm SCT @f/40 with with a DBK21AF04.AS

**KINGSLEY, Bruce A ブルース=キングスレイ (BKn)** 英国 Maidenhead, UK

1 Set of Colour Images (17 January 2010) 35cm SCT @f/41 with a SKYnyx2-0

**KOHZAKI, Ichiro 神崎 一郎 (Kz)** 東久留米 Higashi-Kurume, Tokyo, Japan

32 Drawings (16,~19, 22,~28, 31 January 2010) 240, 300, 340, 480×20cm speculum

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

9 Sets of Colour Images (16, 17, 19, 23,~26, 28, 29 January 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 + 2 Colour Images (17, 25, 30 January 2010) 36cm SCT @f/67 with a SKYnyx2-0M

**LEWIS, Martin R マーチン=ルwis (MLw)** 英国 St. Albans, Hertfordshire, UK

4 Colour Images (17, 26, 30 January 2010) 22cm speculum @f/46 with a DMK21AF04.AS

**LORENZ, Joachim ヨアヒム=ローレンツ (JLw)** ドイツ Hormersdorf, Germany

2 Sets of RGB Images (23, 26 January 2010) 30cm spec @f/30 with a DMK21BF04

**MAKSYMOWICZ, Stanislas**

スタニスラス=マクシモヴィッチ (SMk) フランス Ecquevilly, France

3 Sets of Drawings (26, 29<sup>f</sup>, 30 January 2010)

250×, 340× 30cm Cassegrain, 200×, 250×, 280 ×15cm Cassegrain<sup>f</sup>

**MASON, David デイヴィッド=メイソン (DMs)** 英国 (51.5°N, 0.73°W) UK

1 Colour Image (29 January 2010) 31cm SCT @f/25

**MELILLO, Frank J フランク=メリッロ (FMl)** ニューヨーク Holtsville, NY, USA

7 Colour Images (17, 21, 23, 27 January 2010) 25cm SCT with a ToUcam pro II

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

83 Drawings (16, 17, 19, 24, 26, 27, 30, 31 January 2010) 340, 400×20cm 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

4 Sets of RGB Images (21, 27, 29, 31 January 2010) 31cm SCT with a DMK21AF04

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

13 Sets of RGB + 13 L Images (17, 19, 24, 29 January 2010) 25cm speculum @f/75 with a Lu-075M

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

28 Drawings (16, 18, 23, 24, 26, 29, 30 January 2010) 320, 400×20cm F/8 speculum

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

30 Drawings (19, 26, 27, 30, 31 January 2010) 340, 400×20cm Goto ED refractor\*

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

4 Sets of RGB + 1 nIR + 2 UV Images (20, 23, 31 January 2010)

41cm F/6 speculum @f/22, 47 with a SKYnyx 2-0M

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

16 Sets of Colour + 1 G + 1 B Images (17, 23, 26/27, 29, ~31 January 2010)

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

**PELLIER, Christophe クリストフ・ペリエ (CPl)** フランス Seine-St-Denis, France

4 Sets of RGB+3 IR + 1 UV +1 V Images (30/31 January 2010) 25cm Cass@f/50 with a SKYnyx 2-0M

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

2 Sets of RGB + 7 RGB Colour+ 3 LRGB Colour + 2 V + 2 IR Images (30, 30/31 January 2010)

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

**SÁNCHEZ, Jesús R ヘスス・サンチェス (JSc)** コルドバ Córdoba, España

4 Colour Images (20/21, 21 January 2010) 26cm Maksutov-Cassegrain with a DMK21AF04.AS

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

3 Sets of RGB Image (29, ~31 January 2010) 28cm SCT @ f/57 with a SKYnyx 2-0M

**SMET, Kris クリス・スメト (KSm)** ベルギー Bornem, Belgium

2 Colour Drawings (26 January 2010) 300×30cm Dobsonian, 280×20cm Dobsonian

**SOLDEVILLA GONZALEZ, José Antonio**

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

1 LRGB Image (22 January 2010) 25cm speculum with a Watec 120+ camera

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

3 Sets of RGB + 3 Colour Images (17, 26, 29 January 2010)

36cm SCT @f/44, 48 with a SKYnyx 2-0

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

1 Set of RGB Images (17 January 2010) 28cm SCT (⊗3×Barlow) with a DBK21AF04.AS

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

♂.....A) **Polar dusts:** It is well-known that there occur several polar dusts around the npc at this season of the year. Already in CMO #364 (25 Nov issue) we reported a dust streaks detected by FLANAGAN (WFl) and others near Utopia. This time also several occurred: **a) 17 Jan ( $\lambda=039^\circ\text{Ls}$ ):** MORITA (Mo)'s images at  $\omega=354^\circ\text{W}$ ,  $359^\circ\text{W}$ ,  $004^\circ\text{W}$ ,  $019^\circ\text{W}$  on 17 Jan ( $\lambda=036^\circ\text{Ls}$ ) suggest a dust streak especially in B to the north of M Acidalium. At  $\omega=004^\circ\text{W}$  it is evident also in G, and vaguely it is seen in the RGB image. It must have not been so furious but its root looks deep, and it is possible that the polar dust is given rise to the area near the perimeter of the residual polar cap. AKUTSU (Ak)'s B and G images on the day at  $\omega=007^\circ\text{W}$  also suggest but not so obvious. **b) 21 Jan ( $\lambda=041^\circ\text{Ls}$ ):** We should notice the npc part of the image given by SÁNCHEZ on 21 Jan ( $\lambda=041^\circ\text{Ls}$ ) at  $\omega=095^\circ\text{W}$ : Apparently there is a disturbance inside the

npc. The outside of the perimeter shows a wine-coloured tint. Unfortunately there is no other image near the time. **c) 29/30 Jan ( $\lambda=044^\circ\text{Ls}$ ):** CASQUINHA (*PCq*)'s images at 00:23~0027GMT ( $\omega=053^\circ\text{W}$ ) on 29 Jan ( $\lambda=044^\circ\text{Ls}$ ) show that the northern part of M Acidalium is wine-coloured and look to suggest a precursory state, and at 21:53~23:20 GMT on the day PEACH (*DPc*) revealed a dust disturbance inside the npc at  $\omega=019^\circ\text{W}$ ,  $029^\circ\text{W}$  (B) to the north of M Acidalium and showed that it flowed out to the triangular dark part of M Acidalium in RGB ( $\omega=008^\circ\text{W}$ ,  $017^\circ\text{W}$ ,  $021^\circ\text{W}$ ). Inside the npc it curved and it looks as if it has two feet. On the day in England the sky seemed to be good, and KIDD (*SKd*) also took at  $\omega=009^\circ\text{W}$  (slightly unobvious), and TYLER (*DTy*) clearly showed the part of the disturbance outside the npc at  $\omega=010^\circ\text{W}$ ,  $032^\circ\text{W}$ . On the image of SHARP (*ISp*) at  $\omega=027^\circ\text{W}$ , the two feet are evident, and MASON (*DMs*) at  $\omega=028^\circ\text{W}$  showed the deeper part and the outside. EDWARDS (*PEd*) then showed at  $\omega=034^\circ\text{W}$  (23:40 GMT) a clear flow of the dust outside the npc. On 30 Jan ( $\lambda=045^\circ\text{Ls}$ ) at 00:05~00:37 GMT, POUPEAU (*JPp*) chased at  $\omega=040^\circ\text{W}$ ( $042^\circ\text{W}$ ,  $044^\circ\text{W}$ ),  $048^\circ\text{W}$  where the dust is quite evident. LEWIS (*MLw*) also showed the two feet at  $\omega=041^\circ\text{W}$ . On LAWRENCE (*PLw*)'s image at  $\omega=053^\circ\text{W}$  (01:01GMT), the outside dust is beautiful. On the night of 30 Jan the observations still continued, and on 30 Jan ( $\lambda=045^\circ\text{Ls}$ ), *ISp* at  $\omega=358^\circ\text{W}$  (21:49 GMT) and *DPc* at  $\omega=358^\circ\text{W}$ ,  $003^\circ\text{W}$ ,  $013^\circ\text{W}$  showed that the north of M Acidalium was covered by white mist in the morning. PELLIER (*CPl*) on the day chased at  $\omega=002^\circ\text{W}$ ,  $011^\circ\text{W}$ ,  $020^\circ\text{W}$ ,  $040^\circ\text{W}$  (22:07 GMT~00:43GMT) and showed the aspect of the outside dust. The wine-coloured spread is mixed with the spread of dust. *LWs* also took at  $\omega=022^\circ\text{W}$ . On 30/31 Jan, *JPp* also chased at  $\omega=023^\circ\text{W}$ ,  $028^\circ\text{W}$ ,  $038^\circ\text{W}$ ,  $046^\circ\text{W}$ ,  $057^\circ\text{W}$  (23:31~01:52GMT) and produced the same result as *CPl*. At  $\omega=047^\circ\text{W}$ , he showed a small light spot inside the M Acidalium triangle in G and B which is of course reflected in RGB. This spot looks to be seen on the image of *DPc* at  $\omega=002^\circ\text{W}$ . GRENNAN (*DGn*)'s image at  $\omega=027^\circ\text{W}$  (23:48GMT) shows a remnant at the outside of the npc. The first image on 31 Jan ( $\lambda=045^\circ\text{Ls}$ ) was taken by MORALES (*EMr*) at  $\omega=081^\circ\text{W}$  but the area declined much to the east. PARKER's images at  $\omega=100^\circ\text{W}$  are also the same. On the night of 31 Jan ( $\lambda=046^\circ\text{Ls}$ ), *DPc* took at  $\omega=358^\circ\text{W}$ ~ $009^\circ\text{W}$ , but no conspicuous change was seen. *ISp*'s image however may show an effect in B at  $\omega=002^\circ\text{W}$ . **d) 31 Jan ( $\lambda=045^\circ\text{Ls}$ ):** Next, on 31 Jan ( $\lambda=045^\circ\text{Ls}$ ) at  $\omega=226^\circ\text{W}$ (13:23GMT),  $235^\circ\text{W}$  (14:01GMT), *Ak* detected in the ccd clearly in a different place near Utopia a beautiful dust whose half was inside the npc and the other half outside but inside Utopia. The inside part is also clear in B. On the day NAKAJIMA (*Nj*) and one of the present writer (*Mn*) were on the watch at Fukui, but unfortunately after 12:00GMT ( $\omega=206^\circ\text{W}$ ) it became cloudy and when Mars reappeared was it was at 14:40GMT ( $\omega=246^\circ\text{W}$ ) and missed the angles of *Ak*. At  $\omega=246^\circ\text{W}$  the western half of the npc was extraordinarily less bright, and *Mn* thought that a dust of the opposite side was floating in. Unfortunately the transparency was poor and hence the colour of Utopia looked just brownish. **B) Wine-Coloured Effect at the NPR:** An email of *DPc* on 4 Jan JST noticed that his image of the tail of M Acidalium taken on 23 Jan ( $\lambda=042^\circ\text{Ls}$ ) at  $\omega=085^\circ\text{W}$  depicted a wine-coloured tinge, and emphasised that it was real. Hitherto similar colour has been detected on the southern hemisphere several times, and it was a phenomenon which showed that a thin mist or dust covering an area is cleared up. This time also it was considered that the outside of the polar region was quite clearly cleared up governed by a high-pressure atmosphere in contrast with the low-pressure front at the perimeter of the npc. The water vapour must have existed, but it must be a state where it is not saturated. As a matter of fact already on 19 Jan ( $\lambda=040^\circ\text{Ls}$ ) at  $\omega=034^\circ\text{W}$ , *Mo* showed that the triangular NW dark part of M Acidalium was clearly wine coloured, and this directly shows the importance of this phenomenon this time. It may also be seen on the images on 17 Jan ( $\lambda=039^\circ\text{Ls}$ ) by *Ak* at  $\omega=014^\circ\text{W}$  or by GARBETT (*PGb*) at  $\omega=133^\circ\text{W}$  or by BRUCE (*IBr*) at  $\omega=137^\circ\text{W}$  or others. Also *JSc*'s image, aforementioned, on 21 Jan ( $\lambda=041^\circ\text{Ls}$ ) at  $\omega=095^\circ\text{W}$  shows clearly the phenomenon

and in this case directly it must have been related with the dry dust. On the same day as *DPc* did on 23 Jan, LORENZ (*JLr*)'s image also suggests at  $\omega=109^\circ\text{W}$ . This thus has been observed a lot every day, until at least *EMr*'s images on 31 Jan ( $\lambda=040^\circ\text{Ls}$ ) at  $\omega=081^\circ\text{W}$ : We omit however them (some may be important) because we have to enter an intricate description. Exceptionally it should be noted that BUDA (*Sbd*)'s case on 27 Jan ( $\lambda=044^\circ\text{Ls}$ ) at  $\omega=261^\circ\text{W}$  shows the place very faraway from M Acidalium and at around Utopia.

**C) White Mist:** On the other hand, the saturated water vapour was active in mid-latitudes and a bit along the equatorial band: **a) Equatorial Zone:** The mist along the equatorial band is not yet so obvious, while *PLw*'s image on 25 Jan ( $\lambda=043^\circ\text{Ls}$ ) at  $\omega=110^\circ\text{W}$  (though no report of B) the evening Xanthe mist runs through Tharsis to the morning limb mist. This is also apparently shown on *DPc*'s B images made on 26/27 Jan ( $\lambda=043^\circ\text{Ls}$ ) at  $\omega=050^\circ\text{W}$ ,  $070^\circ\text{W}$ . *PCq*'s images on 29 Jan ( $\lambda=044^\circ\text{Ls}$ ) at  $\omega=053^\circ\text{W}$  and *EMr*'s ones on 31 Jan ( $\lambda=045^\circ\text{Ls}$ ) at  $\omega=081^\circ\text{W}$  also suggest a vast white mist. On *DPk*'s images on 31 Jan ( $\lambda=045^\circ\text{Ls}$ ) at  $\omega=100^\circ\text{W}$ , the mist started from the evening Xanthe and went down to Tempe and Alba and was related with the morning lower mist to the west of Olympus Mons. Visually one of the present writers (*Mn*) saw misty light Chryse near the CM on 16 Jan ( $\lambda=039^\circ\text{Ls}$ ) at  $\omega=042^\circ\text{W}$  etc, and at  $\omega=081^\circ\text{W}$  saw the mist band from Xanthe to the equatorial zone (ebm). On 19 Jan ( $\lambda=040^\circ\text{Ls}$ ) at  $\omega=033^\circ\text{W}$ ,  $\omega=043^\circ\text{W}$  he checked it going to Chryse-Xanthe. **b) Evening Mists:** Mist appears as Xanthe comes to the evening side: GHOMIZADEH (*SGh*) took it on 16 Jan ( $\lambda=039^\circ\text{Ls}$ ) at  $\omega=088^\circ\text{W}$ , and on 18 Jan ( $\lambda=040^\circ\text{Ls}$ ) at  $\omega=079^\circ\text{W}$  etc, and also *JSc* did on 21 Jan ( $\lambda=041^\circ\text{Ls}$ ) at  $\omega=095^\circ\text{W}$ , *JLr* on 23 Jan ( $\lambda=042^\circ\text{Ls}$ ) at  $\omega=109^\circ\text{W}$ , FERNÁNDEZ (*FFn*) on 24 Jan ( $\lambda=042^\circ\text{Ls}$ ) at  $\omega=080^\circ\text{W}$ , *EMr* on 27 Jan ( $\lambda=043^\circ\text{Ls}$ ) at  $\omega=118^\circ\text{W}$  and so on. Another important mist (cloud) is the one at Libya: on 23 Jan ( $\lambda=042^\circ\text{Ls}$ ), another of the present writers (*Mk*) visually observed a larger one at  $\omega=297^\circ\text{W}$  and chased it at  $307^\circ\text{W}$ ,  $317^\circ\text{W}$ ,  $327^\circ\text{W}$ , and at  $\omega=336^\circ\text{W}$  it was condensed very thick at the evening Libya near Syrtis Mj. On 24 Jan ( $\lambda=042^\circ\text{Ls}$ ) *Mn* saw how it varied at  $\omega=308^\circ\text{W}$ ,  $318^\circ\text{W}$ ,  $328^\circ\text{W}$ , and then finally checked its thick aspect at  $\omega=337^\circ\text{W}$ . On 17 Jan ( $\lambda=039^\circ\text{Ls}$ ) *Mo* continuously took from  $\omega=354^\circ\text{W}$  to  $034^\circ\text{W}$ , but not timely to chase the Libya cloud. On the day KUMAMORI (*Km*) showed a bit of the cloud near the terminator at  $\omega=359^\circ\text{W}$ . On 19 Jan ( $\lambda=040^\circ\text{Ls}$ ) KOHZAKI (*Kz*) visually observed at  $\omega=330^\circ\text{W}$ ,  $339^\circ\text{W}$ , *Mn* at  $\omega=315^\circ\text{W}\sim 335^\circ\text{W}$ , and *Km* took a set at  $\omega=339^\circ\text{W}$ . On 22 Jan ( $\lambda=041^\circ\text{Ls}$ ) *Kz* visually observed it at  $\omega=316^\circ\text{W}$ ,  $325^\circ\text{W}$ . On 31 Jan ( $\lambda=046^\circ\text{Ls}$ ) *DPc* took the images at  $\omega=358^\circ\text{W}$ ,  $002^\circ\text{W}$  which were related with the Libya mist, and *ISp* did at  $\omega=002^\circ\text{W}$ : We will touch again about *DPc*'s images below. **c) Morning Mists:** There are a particular morning mist as well as usual morning mist as the opposition was passing. The Chryse morning mist is frequently seen, and this time *Kz* caught it on 18 Jan ( $\lambda=040^\circ\text{Ls}$ ) at  $\omega=348^\circ\text{W}$ ,  $358^\circ\text{W}$ ,  $008^\circ\text{W}$ , *Mk* did at  $\omega=339^\circ\text{W}$ ,  $348^\circ\text{W}$ . On 23 Jan ( $\lambda=042^\circ\text{Ls}$ ), *Mk* again observed it at  $\omega=346^\circ\text{W}$ . SMET (*KSm*) gave a pretty colour-drawing about the Chryse-Xanthe mist on 26 Jan ( $\lambda=043^\circ\text{Ls}$ ) at  $\omega=006^\circ\text{W}$ . On the other hand, since we welcomed the spring after opposition, we became to observe the usual morning mist near the northern hemisphere morning terminator. This time it was well observed in Europe. For instance, on 29 Jan ( $\lambda=045^\circ\text{Ls}$ ), *DPc* at  $\omega=008^\circ\text{W}\sim 029^\circ\text{W}$ , *SKd* at  $\omega=009^\circ\text{W}$ , *DTy* at  $\omega=010^\circ\text{W}$ ,  $032^\circ\text{W}$ , *ISp* at  $\omega=027^\circ\text{W}$ , *PEd* at  $\omega=034^\circ\text{W}$ , and on 30 Jan ( $\lambda=045^\circ\text{Ls}$ ), *JPp* sowed it at  $\omega=040^\circ\text{W}\sim 048^\circ\text{W}$ , *MLw* at  $\omega=041^\circ\text{W}$ , *PLw* at  $\omega=053^\circ\text{W}$  etc. Of course it was apparent also on 31 Jan ( $\lambda=046^\circ\text{Ls}$ ). **D) Opposition Effects:** It is a folklore that the dark marking will appear in B when the planet is at opposition - the blue clearing - whilst it is only given rise to because of a distribution of white mist in a season. On the other hand such a summit of Olympus Mons shines at opposition is an "opposition effect". Unfortunately this time the morning mist is strong and the American observations were a few, few effective results have been obtained. It is an opposition effect that HERNANDEZ (*Chr*) fortunately caught it on 29 Jan ( $\lambda=044^\circ\text{Ls}$ ) at  $\omega=131^\circ\text{W}$ ,  $139^\circ\text{W}$  near the CM visually.



*EMr's* image set on 29 Jan ( $\lambda=044^\circ\text{Ls}$ ) at  $\omega=128^\circ\text{W}$  shows Olympus Mons near the CM as well as preceding Tharsis Montes without clouds, but not so conspicuous. On *DPK's* images on 31 Jan ( $\lambda=045^\circ\text{Ls}$ ) at  $\omega=100^\circ\text{W}$ , it appeared on the morning side: This is not caused by the morning mist: On the contrary the true shining was weakened by the morning mist. *GORCZYNSKI (PGc)'s* images on 28 Jan ( $\lambda=044^\circ\text{Ls}$ ) at  $\omega=126^\circ\text{W}$  show it on the morning side though it is not so obvious. The situation was somewhat different than the case in 2005 where the sky was clearer. See also *EMr's* images on 27 Jan ( $\lambda=043^\circ\text{Ls}$ ) at  $\omega=118^\circ\text{W}$  etc. *PLw's* image on 25 Jan ( $\lambda=043^\circ\text{Ls}$ ) at  $\omega=110^\circ\text{W}$  also shows the trace. However *DPc's* images do not show any on 23 Jan ( $\lambda=042^\circ\text{Ls}$ ) at  $\omega=085^\circ\text{W}$ , and hence this year it was not seen when  $\iota>6^\circ$ . This says that after the spring because of the white mist it is not easy to check the opposition effect.

**E) Orographic Clouds:** On the contrary, the roll clouds over the summits are frequently trapped in the afternoon. However the season is too early to see the cotton-ball-like clouds. One of the impressive cloud images of Olympus Mons is obtained by *PLw* on 17 Jan ( $\lambda=039^\circ\text{Ls}$ ) at  $\omega=184^\circ\text{W}$  near the evening limb. We also note from *WFl's* images on 22 Jan ( $\lambda=041^\circ\text{Ls}$ ) at  $\omega=208^\circ\text{W}$ , that Elysium Mons receives the orographics earlier (from near or before noon) than other Montes.

**F) Morning Syrtis Mj and the Evening Syrtis Mj:** At the opposition time the area of Syrtis Mj faced to us (though the weather condition was poor). As far as *Mn* observed, the southern markings were mostly dark blue, while M Cimmerium sometimes was blue. Syrtis Mj was caught on 26 Jan ( $\lambda=043^\circ\text{Ls}$ ) at  $\omega=239^\circ\text{W}$ : When it popped out from the morning mist it showed a sky blue tinge. At the same time Libya was light à la crème and then *Æria* became very bright near the limb. It must have been the remainder of the morning mist. On 30 Jan ( $\lambda=045^\circ\text{Ls}$ ) at  $\omega=244^\circ\text{W}$  Syrtis Mj was bluer than M Tyrrhenum. On 31 Jan ( $\lambda=046^\circ\text{Ls}$ ) at  $\omega=245^\circ\text{W}$  it was light sky blue. *Ak's* image on the day at  $\omega=235^\circ\text{W}$  also shows the blue colour. On the contrary Utopia remained brownish. *PGc's* image on 17 Jan ( $\lambda=039^\circ\text{Ls}$ ) at  $\omega=224^\circ\text{W}$  nearly shows the blue Syrtis, but perhaps the L filter was obstruct or the angle was not appropriate a bit. The reason Syrtis Mj was sky blue is not due to the presence of the blue cloud, but when the light passes through the white mist the lights of shorter wavelengths are easily refracted and reach us more than other colours. This occurs of course at the evening side: *DPc* on 31 Jan ( $\lambda=046^\circ\text{Ls}$ ) at  $\omega=358^\circ\text{W}$ ,  $002^\circ\text{W}$ ,  $009^\circ\text{W}$  described a blue Syrtis near the evening limb which was caused by the Libya mist as mentioned before. *CPl* also pointed out this fact on the same day concerning his images at  $\omega=002^\circ\text{W}\sim 040^\circ\text{W}$ . *PCq* and *ISp* also took similar images of the blue Syrtis Mj at  $\omega=000^\circ\text{W}$  and  $\omega=002^\circ\text{W}$  respectively. Visually *Mk* also see visually on 16 Jan ( $\lambda=039^\circ\text{Ls}$ ,  $\iota=11^\circ$ ) at  $\omega=337^\circ\text{W}$  the blue Syrtis Mj near the evening terminator. Note that the "Syrtis Blue Cloud" is a misnomer: There is no blue cloud, whilst just the white mist scatters the shorter wavelength lights. At least the planet is near at opposition it shows at the both sides though the slope of the area of Syrtis Mj brings about a bit of unevenness. Near at the CM at the opposition time it may be bluish but quite dark.

**G) Hellas and the SP Limb:** *Nj* and *Mn* always talked about the dullness of Hellas on 26 Jan ( $\lambda=043^\circ\text{Ls}$ ), 30 Jan ( $\lambda=045^\circ\text{Ls}$ ), and 31 Jan ( $\lambda=046^\circ\text{Ls}$ ) during their continual observations. On the ccd images, for example *Sbd's* images on 23 Jan ( $\lambda=042^\circ\text{Ls}$ ) at  $\omega=292^\circ\text{W}$  show its dullness, and *Mo's* images on 24 Jan ( $\lambda=042^\circ\text{Ls}$ ) at  $\omega=285^\circ\text{W}$  and *Km's* at  $\omega=296^\circ\text{W}$  on the day, and *Ak's* ones on 28 Jan ( $\lambda=044^\circ\text{Ls}$ ) at  $\omega=282^\circ\text{W}$  also prove it. We note however visually the southern limb is always light. At the Argyre side, as shown by *DPc's* images on 26/27 Jan ( $\lambda=043^\circ\text{Ls}$ ) at  $\omega=038^\circ\text{W}$ ,  $047^\circ\text{W}$ , the west side of Argyre is always bright misty.

**H) Southern and Northern hemispheres:** It was just checked by *Mn* only on 24 Jan ( $\lambda=042^\circ\text{Ls}$ ) at  $\omega=347^\circ\text{W}$  that the region to the south of S Sabaeus and the northern hemisphere quite looked different in colour. The southern hemisphere was rather grey not to say dusty while the region to the north of S Sabaeus was pinkish and quite distinctly separated. *Æria* appeared sometimes reddish.

**I) Miscellaneous:** *Kz* points out that Libya is clearly light

though any ccd does not prove it. *Mn* is also of the same opinion. However *Kz* observes that the *Ætheria* district is a bit lighter, while *Mn* sees the district a bit shadowy. This thing is not proved by the ccd processing. Cf however *CHR*'s colour drawing on 18 Jan ( $\lambda=039^\circ\text{Ls}$ ) at  $\omega=235^\circ\text{W}$  shows that *Ætheria* district is more shadowy than the *Elysium* area. On the other hand we should like to point out that according to *Nj* and *Mn* *Cebrenia* does not look conspicuous compared with its brightness at the years gone by. At least in the 1980s we observed it as bright as *Elysium* in the Y letter shape. At latest we saw it in Jan 1993. Just this year observation rate of this region is not so much.

♂⋯⋯A) 極型黄塵：北極冠の周りに黄塵が起つことはよく知られたことではあるし、既に#364(25Nov号)でフラナガン(WFl)氏等の追跡した例を挙げているが、今回も幾つか見られた。a) 17Jan( $\lambda=039^\circ\text{Ls}$ )の森田(Mo)氏の $\omega=354^\circ\text{W}$ 、 $359^\circ\text{W}$ 、 $004^\circ\text{W}$ 、 $019^\circ\text{W}$ など、特にそのB像を見るとマレ・アキダリウムの北で縦に筋が入っているのが認知される。 $\omega=004^\circ\text{W}$ ではGにも明確で、したがってRGB上には黄塵の筋となって朧気ながら見えている。未だ激しくないが根が深く、これは極型黄塵が極冠の周辺で起こるだけでなく、内部の永久極冠の周りでも起こることを示しているのではないかと思われる。阿久津(Ak)氏の $\omega=007^\circ\text{W}$ のB、Gにも痕跡が見られるが顕著ではない。b) 21Jan( $\lambda=041^\circ\text{Ls}$ ) $\omega=095^\circ\text{W}$ のサンチェス(JSc)氏の北極冠にも注目するとよい。明らかに北極冠内で擾乱が起こっている。黄塵の色合いはしていないが、これは処理の問題だろうと思う。その外側はワインカラーになっている。前後の画像がないのが残念である。c) 29Jan( $\lambda=044^\circ\text{Ls}$ )00:23~00:27GMT( $\omega=053^\circ\text{W}$ )のカスキニア(PCq)氏の画像を見るとマレ・アキダリウムの北部はワインカラーになっていて、怪しげな状態だが、その夜21:53~23:20GMTに撮られたピーチ(DPc)氏の画像には特に $\omega=019^\circ\text{W}$ 、 $029^\circ\text{W}$ のB像に現れている如く、矢張りマレ・アキダリウムの北に黄塵が起ち、RGB( $\omega=008^\circ\text{W}$ 、 $017^\circ\text{W}$ 、 $021^\circ\text{W}$ )には黄塵が極冠内部から外(三角形暗部)に掛けて流れ出るように出ているのが判る。実際には内部で反転し、二本脚のようにもう一本先行している。この日は英国は好く晴れたようで、キッド(SKd)氏が $\omega=009^\circ\text{W}$ で(やや不分明)、タイラー(DTy)氏が $\omega=010^\circ\text{W}$ 、 $032^\circ\text{W}$ で外に出ている部分の描写をしている。シャープ(ISp)氏では $\omega=027^\circ\text{W}$ で二本脚が明瞭、メーソン(DMs)氏は $\omega=028^\circ\text{W}$ で内部奥と外側を明確にしている。次いでエドワーズ(Ped)氏が $\omega=034^\circ\text{W}$ (23:40GMT)で外側の綺麗な描写を与えた。30Janに入ってプーポー(JPp)氏が30Jan( $\lambda=045^\circ\text{Ls}$ )00:05~00:37GMT( $\omega=040^\circ\text{W}$ ( $042^\circ\text{W}$ 、 $044^\circ\text{W}$ ), $048^\circ\text{W}$ )で追跡しているが、黄塵は明確である。ルウィス(MLw)氏も $\omega=041^\circ\text{W}$ で二本脚を描写している。 $\omega=053^\circ\text{W}$ (01:01GMT)のローレンス(PLw)氏の像は外側の黄塵が綺麗である。30Janの夜になってからも観測は続けられたが、30Jan( $\lambda=045^\circ\text{Ls}$ )のISp氏 $\omega=358^\circ\text{W}$ (21:49GMT)やDPc氏の $\omega=358^\circ\text{W}$ 、 $003^\circ\text{W}$ 、 $013^\circ\text{W}$ ではマレ・アキダリウム北部の朝方が白い霧を被ったようになっている。ペリエ(CPI)氏は22:07GMT~00:43GMTまで $\omega=002^\circ\text{W}$ 、 $011^\circ\text{W}$ 、 $020^\circ\text{W}$ 、 $040^\circ\text{W}$ と追っていて、外側に残滓がどの様になっているか見ている。ワインカラーもあると思うが黄雲の拡がりもあるようである。LWs氏も $\omega=022^\circ\text{W}$ で撮っているが像がもの足りない。30Janから31Janに掛けて更にJPp氏が $\omega=023^\circ\text{W}$ 、 $028^\circ\text{W}$ 、 $038^\circ\text{W}$ 、 $046^\circ\text{W}$ 、 $057^\circ\text{W}$ (23:31~01:52GMT)と追跡し、CPI氏と同じ結果を出している。 $\omega=047^\circ\text{W}$ ではGとBにマレ・アキダリウム北部の三角形暗部の東側に明るい斑点を出している。勿論RGBにも反映している。これはDPc氏の $\omega=002^\circ\text{W}$ にも出ているように思う。グレッナン(DGn)氏は $\omega=027^\circ\text{W}$ (23:48GMT)には外側に残滓があるかも知れない。日が明けて31Jan( $\lambda=045^\circ\text{Ls}$ ) $\omega=081^\circ\text{W}$ のモラレス(EMr)の像ではマレ・アキダリウムが東に傾いてしまっている。パーカー(DPk)氏の $\omega=100^\circ\text{W}$ も然りで様子は判らない。夜になって31Jan( $\lambda=046^\circ\text{Ls}$ )のDPc氏は $\omega=358^\circ\text{W}$ ~ $009^\circ\text{W}$ を撮っているが、顕著な変化は消えている。ISp氏の $\omega=002^\circ\text{W}$ ではBに影響が遺っているように見える。d) 31Jan( $\lambda=045^\circ\text{Ls}$ )になって、今度はウトピアの方で $\omega=226^\circ\text{W}$ (13:23GMT)、 $235^\circ\text{W}$ (14:01GMT)にAk氏が見事な黄塵の溢れ出しを撮像した。逆くの字形に内部から外に出ていて像も明確で秀逸である。実はこの日は足羽山に中島(Nj)氏と筆者の一人(Mn)が待機していて、観測もしたのであるが、Mnの場合12:00GMT $\omega=206^\circ\text{W}$ で曇られ、次に晴れたのは14:40GMT $\omega=246^\circ\text{W}$ で、Ak氏の角度を逸している。晴が

戻って $\omega=254^\circ\text{W}$ 、 $264^\circ\text{W}$ と観ているが、 $\omega=246^\circ\text{W}$ で既に北極冠の西半分が蔭のようになっているのを見ており、異変があると感じていたが、反対側の黄雲が流れてきたものかと考えていた。ウトピアの異常にも気付いていたが、ウトピアが茶系統に見えるものの、黄雲色には見えなかった(雲が通り透明度は好くない)。

**B) 北極域のワインカラー効果**：24JanJSTのemailでDPc氏が23Jan( $\lambda=042^\circ\text{Ls}$ ) $\omega=085^\circ\text{W}$ のマレ・アキダリウムの西の裾野にワインカラーの色合いが出ていて、これはrealであると力説している。これまでも好く南半球で見られた効果で、薄霧や淡いダストが晴れたときに起こる現象である。今回も北極冠の外側が高気圧に支配されて好く晴れたと考えられる。水蒸気は存在するが、飽和しない状態だと考えられる。実は既にMo氏の19Jan( $\lambda=040^\circ\text{Ls}$ ) $\omega=034^\circ\text{W}$ においてマレ・アキダリウム西北部の三角形の暗部がワインカラーになっていて、この画像が最もこの現象の大きさを示している。尤も既に17Jan( $\lambda=039^\circ\text{Ls}$ )には阿久津(Ak)氏の $\omega=014^\circ\text{W}$ やガーベット(PGb)氏の $\omega=133^\circ\text{W}$ 、ブルース(IBr)氏の $\omega=137^\circ\text{W}$ 等に垣間見られないことはない。また先ほど引用のJSc氏の21Jan( $\lambda=041^\circ\text{Ls}$ ) $\omega=095^\circ\text{W}$ には明瞭であり、黄塵との関係を示唆している。DPc氏と同じ23Janにもローレンツ(JLr)氏の $\omega=109^\circ\text{W}$ にも窺える。以後毎日のように同じような光景が写し出されていて、31Jan( $\lambda=040^\circ\text{Ls}$ ) $\omega=081^\circ\text{W}$ のEMr氏の像まで続くのであるが、煩瑣になるのでここでは省略する。ただ、ブダ(SBd)氏の場合(27Jan( $\lambda=044^\circ\text{Ls}$ ) $\omega=261^\circ\text{W}$ )は場所が違ってウトピアのところで出ている。少なくともマレ・アキダリウムやウトピアあたりのこの現象は当該極型黄塵と連繫していることは間違いない。先にも述べた様にPCq氏の29Jan( $\lambda=044^\circ\text{Ls}$ ) $\omega=053^\circ\text{W}$ が暗示的である。

**C) 白霧**：これに対して飽和している水蒸気の活動は中緯度や赤道帯で盛んである。

**a) 赤道帯**：赤道帯に亘る霧は未だ顕著ではないが、PLw氏の25Jan( $\lambda=043^\circ\text{Ls}$ ) $\omega=110^\circ\text{W}$ にはBの報告がないが、夕霧のクサンテからタルシスを越えて朝霧まで繋がっているようである。26/27Jan( $\lambda=043^\circ\text{Ls}$ )のDPc氏の $\omega=050^\circ\text{W}$ 、 $070^\circ\text{W}$ のB像には明らかに認められる。PCq氏の29Jan( $\lambda=044^\circ\text{Ls}$ ) $\omega=053^\circ\text{W}$ やEMr氏の31Jan( $\lambda=045^\circ\text{Ls}$ ) $\omega=081^\circ\text{W}$ にも広がった白霧が見られる。DPk氏の31Jan( $\lambda=045^\circ\text{Ls}$ ) $\omega=100^\circ\text{W}$ にはクサンテからテムペ、アルバ、オリュムプス・モンスの西に朝方に連なっている。CPI氏も30/31Jan( $\lambda=045^\circ\text{Ls}$ )の $\omega=002^\circ\text{W}$ ~ $040^\circ\text{W}$ の像に関してこれを指摘している。眼視でも、Mnは16Jan( $\lambda=039^\circ\text{Ls}$ ) $\omega=042^\circ\text{W}$ 等で中央のクリュセを明るく見ているし、 $\omega=081^\circ\text{W}$ ではクサンテから赤道帯に延びる霧を見ている。19Jan( $\lambda=040^\circ\text{Ls}$ )でも $\omega=033^\circ\text{W}$ や $\omega=043^\circ\text{W}$ でクリュセ-クサンテを通っているのをチェックしている。

**b) 夕霧**：クサンテが夕端に来ると霧が好く見られる。ゴミザデ(SGh)氏の16Jan( $\lambda=039^\circ\text{Ls}$ ) $\omega=088^\circ\text{W}$ 、18Jan( $\lambda=040^\circ\text{Ls}$ ) $\omega=079^\circ\text{W}$ で出しているほか、JSc氏が21Jan( $\lambda=041^\circ\text{Ls}$ ) $\omega=095^\circ\text{W}$ 、JLr氏の23Jan( $\lambda=042^\circ\text{Ls}$ ) $\omega=109^\circ\text{W}$ 、フェルナンデス(FFn)氏の24Jan( $\lambda=042^\circ\text{Ls}$ ) $\omega=080^\circ\text{W}$ 、EMr氏の27Jan( $\lambda=043^\circ\text{Ls}$ ) $\omega=118^\circ\text{W}$ で見られる。もう一種重要なのはレビュー雲で、23Jan( $\lambda=042^\circ\text{Ls}$ )には我々のもう一人(Mk)が $\omega=297^\circ\text{W}$ で大きな夕霧を見、それを $307^\circ\text{W}$ 、 $317^\circ\text{W}$ 、 $327^\circ\text{W}$ と追い、 $\omega=336^\circ\text{W}$ に夕端のレビューに集中しているのを見ている。24Jan( $\lambda=042^\circ\text{Ls}$ )にはMnが $\omega=308^\circ\text{W}$ 、 $318^\circ\text{W}$ 、 $328^\circ\text{W}$ と追い、 $\omega=337^\circ\text{W}$ で端で実に雲が濃くなるまで追いつめた。17Jan( $\lambda=039^\circ\text{Ls}$ )にはMo氏が $\omega=354^\circ\text{W}$ から $034^\circ\text{W}$ まで追っているがレビューには遅い。同日熊森(Km)氏が $\omega=359^\circ\text{W}$ で一吋見せている。19Jan( $\lambda=040^\circ\text{Ls}$ )には神崎(Kz)氏が $\omega=330^\circ\text{W}$ 、 $339^\circ\text{W}$ 、Mnが $\omega=315^\circ\text{W}$ ~ $335^\circ\text{W}$ 、Km氏が $\omega=339^\circ\text{W}$ 、22Jan( $\lambda=041^\circ\text{Ls}$ )にはKz氏が $\omega=316^\circ\text{W}$ 、 $325^\circ\text{W}$ で見ている。31Jan( $\lambda=046^\circ\text{Ls}$ )にはDPc氏が際どい $\omega=358^\circ\text{W}$ 、 $002^\circ\text{W}$ で撮像し、PCq氏が $\omega=000^\circ\text{W}$ 、ISp氏が $\omega=002^\circ\text{W}$ で出しているが、DPcの像についてはもう一度以下で触れる。

**c) 朝霧**：朝霧にも特定の朝霧と、衝を迎えて一般的に見えるようになった朝霧がある。クリュセの朝霧としては18Jan( $\lambda=040^\circ\text{Ls}$ )にKz氏の $\omega=348^\circ\text{W}$ 、 $358^\circ\text{W}$ 、 $008^\circ\text{W}$ 、Mkの $\omega=339^\circ\text{W}$ 、 $348^\circ\text{W}$ の観察がある。23Jan( $\lambda=042^\circ\text{Ls}$ )には再びMkの $\omega=346^\circ\text{W}$ がある。クリュセ-クサンテの朝霧はスメト(KSm)氏が26Jan( $\lambda=043^\circ\text{Ls}$ ) $\omega=006^\circ\text{W}$ にカラーで描いている。一方、春分後の衝になって北半球の朝方に霧が顕れてヨーロッパで好く撮られている。若干列挙すると、29Jan( $\lambda=045^\circ\text{Ls}$ )にはDPc氏が $\omega=008^\circ\text{W}$ ~ $029^\circ\text{W}$ 、SKd氏が $\omega=009^\circ\text{W}$ 、DTy氏が $\omega=010^\circ\text{W}$ 、 $032^\circ\text{W}$ 、ISp氏が $\omega=027^\circ\text{W}$ 、PEd氏の $\omega=034^\circ\text{W}$ 、30Jan( $\lambda=045^\circ\text{Ls}$ )にはJPP氏の $\omega=040^\circ\text{W}$ ~ $048^\circ\text{W}$ 、MLw氏の $\omega=041^\circ\text{W}$ 、PLw氏の $\omega=053^\circ\text{W}$ 等々である。勿論31Jan( $\lambda=046^\circ\text{Ls}$ )になっても見えている。

**D) 衝効果**：



所謂B光によって暗色模様が衝の頃顕れるというのは伝説で、顕れないこともあるし顕れるときは多くの場合白霧の分布によって恰も暗色模様が顕れるに過ぎない。今回は白霧の分布の多いときに当たった。これに対してオリュムプス・モンズなどの山頂が衝のときに輝くのが衝効果である。残念ながら今回は朝霧が強い上に、アメリカの観測数が少なく、多くはないが、ヘルナンデス(CHr)氏は29Jan( $\lambda=044^\circ\text{Ls}$ ) $\omega=131^\circ\text{W}$ 、 $139^\circ\text{W}$ の中央付近で眼視で捉えている。EMr氏の29Jan( $\lambda=044^\circ\text{Ls}$ ) $\omega=128^\circ\text{W}$ ではオリュムプス・モンズが中央付近で捉えられタルシス三山も雲無しで出ているが、甚だ弱い。DPk氏の31Jan( $\lambda=045^\circ\text{Ls}$ ) $\omega=100^\circ\text{W}$ には朝方で撮っている。これは朝霧で出て来ているのではなく衝効果で明るいものが朝霧で輝きが弱められたなっている例であろう。ゴルチンスキィ(PGc)氏の28Jan( $\lambda=044^\circ\text{Ls}$ ) $\omega=126^\circ\text{W}$ では見にくいが午前中に出ている。矢張り霧のない2005年のように行かないということであろう。他にEMr氏の27Jan( $\lambda=043^\circ\text{Ls}$ )  $\omega=118^\circ\text{W}$ 等参照。PLw氏の25Jan( $\lambda=043^\circ\text{Ls}$ ) $\omega=110^\circ\text{W}$ にも痕跡が認められる。然し、DPc氏の23Jan( $\lambda=042^\circ\text{Ls}$ ) $\omega=085^\circ\text{W}$ には出ていないから、今回は $\omega>6^\circ$ では見られなかったということになる。春分後の衝効果は難しいということであろう。

**E)山岳雲**：これに対し山岳雲はオリュムプス・モンズ以下、午後の角度では全てのモンズに出ている。但し綿毛のようになるのはもっと後である。今回印象的なのはPLw氏の17Jan( $\lambda=039^\circ\text{Ls}$ ) $\omega=184^\circ\text{W}$ での夕端でのオリュムプス・モンズの様子であろう。なお、WF1氏の22Jan( $\lambda=041^\circ\text{Ls}$ ) $\omega=208^\circ\text{W}$ 等を見るとエリュシウム・モンズの雲はタルシスになどに比べて早く懸かる様である。

**F)朝方のシュルティス・マイヨルと夕方のシュルティス・マイヨル**：衝の頃は日本からはシュルティス・マイヨル中心に見えたのであるが、Mnの観測では南半球の暗色模様は多くは濃紺であったがマレ・キムメリウムなど淡い蒼色に見えるときもあった。シュルティス・マイヨルは26Jan ( $\lambda=043^\circ\text{Ls}$ ) $\omega=239^\circ\text{W}$ で朝霧から出たところと思われたが蒼色であった。同時にリビュアが明るいし、続いてアエリアが西端で非常に明るくなる。霧の残滓であろう。30Jan( $\lambda=045^\circ\text{Ls}$ ) $\omega=244^\circ\text{W}$ でマレ・テュッレヌムに比べて蒼い。31Jan( $\lambda=046^\circ\text{Ls}$ ) $\omega=245^\circ\text{W}$ では明るい空色に見えた。ウトピアは矢張り茶色系統である。同日のAk氏の $\omega=235^\circ\text{W}$ には蒼色が出ていると思う。PGcの17Jan( $\lambda=039^\circ\text{Ls}$ ) $\omega=224^\circ\text{W}$ は殆ど青いシュルティス・マイヨルを見せようとしているが、Lフィルターが邪魔したかも知れない。青く見えるのは蒼い雲があるからという訳ではなく白霧を光りが通過するとき短波長が好く屈折するからである。夕方のシュルティス・マイヨルについてはDPc氏が31Jan( $\lambda=046^\circ\text{Ls}$ ) $\omega=358^\circ\text{W}$ 、 $002^\circ\text{W}$ 、 $009^\circ\text{W}$ に上にも述べた様にリビュア雲を透かしてシュルティス・マイヨルが蒼く写し出した他、PCq氏とISp氏が $\omega=000^\circ\text{W}$ あたりで同じ様な光景を写し出している。尤もMkは16Jan( $\lambda=039^\circ\text{Ls}$ 、 $i=11^\circ$ ) $\omega=337^\circ\text{W}$ で蒼いシュルティス・マイヨルを見ている。尚、英米では「シュルティス蒼色雲」(Syrtis Blue Cloud)と言っている様だが、間違った英語で、これも白霧を通して屈折した短波長光がこちらに届いているにすぎず、蒼い雲があるわけではない。少なくとも衝の頃は平等に両端で見られるということが判る(中央でも衝の頃は青色系統であろうが、濃紺になってしまう。但しシュルティス・マイヨルには傾斜があるので、Mk氏の例を見ると*i*について対称性が崩れているかもしれない)。

**G)ヘッラスと南縁地方**：Nj氏とMnとの26Jan( $\lambda=043^\circ\text{Ls}$ )、30Jan( $\lambda=045^\circ\text{Ls}$ )、31Jan( $\lambda=046^\circ\text{Ls}$ )の連続観測では、いつもヘッラスの鈍いことが話題になった。ccdでもSBd氏の23Jan( $\lambda=042^\circ\text{Ls}$ ) $\omega=292^\circ\text{W}$ にその鈍さが見られる他、24Jan( $\lambda=042^\circ\text{Ls}$ )のMo氏の $\omega=285^\circ\text{W}$ 、Km氏の $\omega=296^\circ\text{W}$ 、Ak氏の28Jan( $\lambda=044^\circ\text{Ls}$ ) $\omega=282^\circ\text{W}$ などで確認出来る。但し眼視では南縁はいつも明るい方である。またアルギュレ地方は例えばDPc氏の26/27Jan ( $\lambda=043^\circ\text{Ls}$ ) $\omega=038^\circ\text{W}$ 、 $047^\circ\text{W}$ 等に見られる如く、アルギュレ以西は霧が懸かっている。

**H)南半球と北半球**：Mnの一回だけの観測であるが、24Jan( $\lambda=042^\circ\text{Ls}$ ) $\omega=347^\circ\text{W}$ の観測で、シヌス・サバエウス以南と北半球が違った色合いで鮮明に見えた。南半球はダスティとまでは言えないが灰色が勝っているのに対し、シヌス・サバエウス以北はピンク色である。綺麗に別れる。アエリアの赤味の懸かった色はときどき見ている。

**I)その他**：Kz氏とMnとの観測の合う点として、リビュアが囲いを以て明るいのに対しccdではその事実が好く顕れないという点である。但し、アエテリア地方はMnは薄暗いと見ているのに対し、Kz氏は明るく見るときがあ

る。ccdでは薄暗くは写らない(CHr氏の18Jan( $\lambda=039^\circ\text{Ls}$ )  $\omega=235^\circ\text{W}$ スケッチではアエテリアはエリュシウムに比べて薄暗い)。なお、今回のこの辺りの風景として、Nj氏とMnは昔と違ってケブレニアが明るくないと見ている。昔と言っても1980年代だが、近くでは1993年Janの頃がそうであった。この頃はエリュシウムとケブレニアがY字形をして明るかった。但し、今年はこの辺りの観察数が多いわけではない。

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

**GERSTHEIMER, Ralf ラルフ・ゲルシュトハイマー(RGh)** ドイツHabichitswald, Deutschland  
2 IR Images (17 December 2009; 5 January 2010) 32cm speculum @f/57 with a DMK21AF04

The IR image on 17 Dec ( $\lambda=025^\circ\text{Ls}$ ) was at  $\omega=173^\circ\text{W}$  where Elysium is vaguely identified. The image on 5 Jan ( $\lambda=034^\circ\text{Ls}$ ) at  $\omega=228^\circ\text{W}$  shows Syrtis Mj near the morning limb: M Cimmerium is shot.

♂.....17Dec( $\lambda=025^\circ\text{Ls}$ ) $\omega=173^\circ\text{W}$ の画像にはエリュシウムが灰かに出ている。5Jan( $\lambda=034^\circ\text{Ls}$ ) $\omega=228^\circ\text{W}$ はシュルティス・マイヨルが西から出たところで、マレ・キムメリウムなど詳しいが像が甘い。

♂.....In the next issue we shall review the observations made during the fortnight period from 1 February ( $\lambda=046^\circ\text{Ls}$ ,  $\delta=14.1''$ ) to 15 February 2010 ( $\lambda=052^\circ\text{Ls}$ ,  $\delta=13.3''$ ). The planet was at opposition on 29 January 2010 ( $\lambda=045^\circ\text{Ls}$ ).

南 政 次・村上 昌己 M MINAMI & M MURAKAMI

Forthcoming 2009/2010 Mars (14)

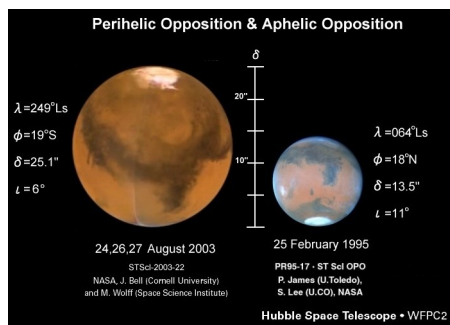
## Why and How Do We Observe the Planet Mars? II

Masami MURAKAMI and Masatsugu MINAMI

村上 昌己(Mk)、南 政 次(Mn)

Anybody knows that the planet Mars has the four seasons, because of the tilt of the rotation axis. For the real Mars observers it is a pleasant to chase the seasons and so we need the values of Ls to write down in the Note. However we don't have to be surprised if there are a few persons who quit taking pictures of Mars as soon as the opposition time passed away, or stop observing during the aphelic

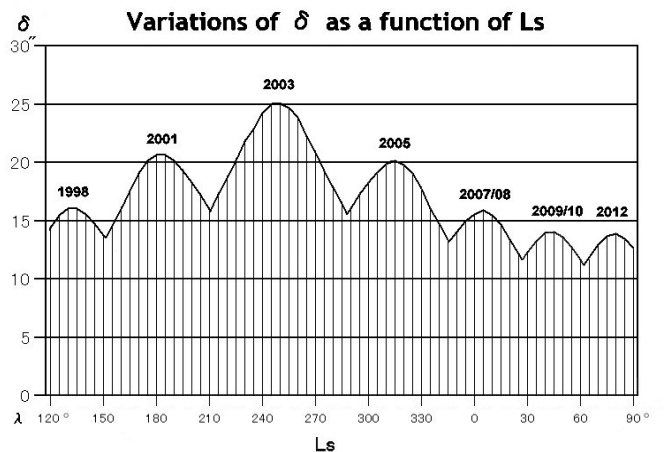
goes down in a single year, we had better employ such a diagram as shown here in which the relation of the seasons and the diameter as a function of Ls is to



oppositions. Perhaps they want to obtain or possess detailed images of Mars, but what for? If

somebody is a true observer (even if he or she liked the chess) he or she will chase the variations of Mars seasons, and will continue to take pictures or drawings even if the angular diameter shrinks (if not in the Lowell time).

In this sense, instead of using the diagram which shows how the angular diameter rises up and then



be more realised. Of course the envelope curve goes down at the aphelic oppositions but at least one might be able to notice how important to observe the period to chase the corresponding seasons. Especially the interesting spring season of the northern hemisphere cannot be observed except when the apparition is aphelic.

Seasons are different. So we should be aware that

we are to be sensitive to the difference of the aspects of the surface in all seasons. In a word we need always "comparison": Comparison is an important ingredient in investigating any kind of scientific fields. In the Martian fields, we should compare the secular changes of the markings, seasonal changes of the polar caps, colour differences in seasons, differences of the markings in different phase angles and so on in a global sense. In a local sense on the other hand we should be always sensitive to the diurnal changes of Mars: We need to know how thickly mist appears near the limb, how lightly some spots appears on the surface, how far the dust is disturbing a local area and so on. In a short paraphrase it is the Mars observation to chase the local diurnal aspect of the surface, repeat it continuously every occasion and eventually to fix down the global seasonal and secular changes.

Here we emphasise the importance to observe the planet Mars several times a night. It rotates about ten degrees every forty minutes, and so we do not need to hasten to observe every time, but if we observe the surface every 40 minutes we can obtain the images of the surfaces which are different by ten degrees. Furthermore the rotation period of Mars is longer by about 40 minutes, and hence if we observe a degree at some fixed time on a day we can obtain on the next day the surface different by ten degrees at the same time and a similar angle surface 40 minutes later. Conversely speaking if we want to "compare" the surface of the day with the next day at an angle, we have only to observe 40 minutes later on the next day. That is, if we observe several times every 40 minutes each day, several surfaces (images or drawings) can be "compared" with those obtained on the forgoing days.

We just wrote that the rotation angle of Mars was different by about ten degrees a day: More exactly for example on 28 February at 00:00 GMT the LCM ( $\omega$ ) is 142.79°W but on 1 March 2010 at 00:00 GMT, the  $\omega$  is 133.81°W and so seemingly they differ by 8.98 degrees. In other words, the rotation of Mars

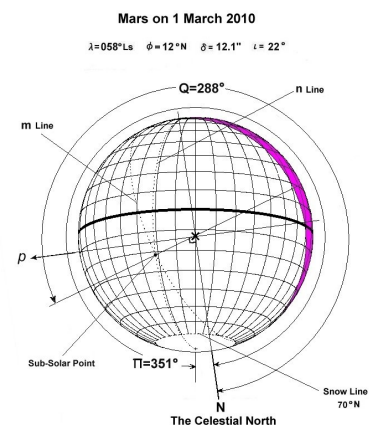
was only 351.02 degrees on one Earth day, in short by 8.98 degrees to reach 360 degrees. Thus the planet looks to rotate 14.63°W per hour, or 9.75°W for 40 minutes. And hence it is not exactly 10 degrees but quite near. But because of this small difference, every 40 minutes observations give rise to a small difference every time. We recommend you to make a Table of  $\omega$  every time to show how the minor differences occur, but the 40 minutes observations are quite effective to "compare".

Unfortunately recently several kinds of software have appeared to give the data including  $\omega$ , and so several do not know how to derive the values of  $\omega$  and so on. But we consider that every observer should know how to derive the value of  $\omega$  and others. For example  $\omega$  is simply given as follows: Let  $\omega_1$  be the LCM on the day at 00:00 GMT, let  $H$  be your observation time in GMT and let  $\omega_2$  be the LCM on the next day. Then the LCM  $\omega$  at your observation time is given by the formula:

$$\omega = \omega_1 + H \times ((360 - (|\omega_2 - \omega_1|)) / 24)$$

For example if your observation is made on 1 March at 3.75 hrs GMT, the  $\omega$  is given as  $142.79 + 3.75 \times 14.63 = 197.65^\circ\text{W}$ . However we should round off it to  $\omega = 198^\circ\text{W}$ . It looks figure 197.65 is more exact, but we should consider that the planet rotates 0.47 degrees for two minutes (or 1.22 degrees for 5 minutes), but no one can finish the observation (several wavelength images etc) in a few minutes, and hence it is ridiculous to use the decimals. If you find such decimal values, you are allowed to recognize that the author is very poor at mathematics.

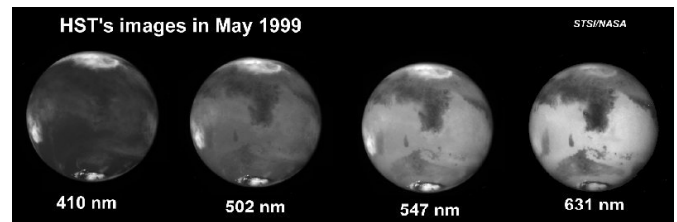
Another important element of observation items (but seldom observed) is the direction  $p \leftarrow$  or  $\rightarrow f$  ( $p$ : preceding, and  $f$ : following) because by this



direction we can know the direction of the celestial north point, and from the direction we can derive the direction of the axis of the planet, the direction of the defect of illumination or the phase and so on by using the phase angle of the north pole ( $\Pi$ ) and the phase angle of sub-solar point ( $Q$ ). We recommend writing down the *phase angle* instead of the phase itself: Phase angle is a rough index to indicate the noon line.

We finally note that we will need several (or a lot of) colour ingredients if we want to know the true colour of the surface of the planet Mars: Tentatively we are using R, G, B ingredients, but in future we will begin to use much more filters. At present the HST uses many filters (at least more than three) and so its colour image is more reliable. Here we cite an example of HST images made by four filters (as a matter of fact many other filters are also used). We sometimes mistake such a wavelength of 502nm as belonging to blue colour, but the Blue one is rather

the one of 401nm here in which the so-called dark markings are not identifiable whilst some thick



clouds as well as a thin mist are quite evident. On the contrary the red (632nm) image seldom shows the cloudy matter. It should not be said that the blue clearing is occurring just by picking out the 502nm image. Originally the blue haze is an erroneous idea. We should say among the four images the most important one is the 410nm one, although for the usual imagers who aim at the so-called "detailed" images, the 631 nm image may be most interesting. **NB:** The HST has a big defect: It is busy and hence it does not continue to observe any stellar object so long. That is, its observation style is like Dirac's  $\delta$  function style, never giving any sea-sonal sequences. □

## 便り Letters to the Editor

●.....**Subject: 22 01 2010 Mars**  
**Received: Sat 23 Jan 2010 19:37:18 JST**

Skywatcher 250mm reflector. Watec 120+, RGB filters

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100122/JSd22Jan10.jpg>  
<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100201/JSd01Feb10.jpg>

**José Antonio SOLDEVILLA GONZALES**

(ホセ=アントニオ・ソルデビージャ=コンサレス Barcelona 西)

●.....**Subject: Re: Fw: RE: Mars, January 9th 2010**  
**Received: Sun 24 Jan 2010 02:22:52 JST**

Dear Masatsugu : I do completely agree with the explanation brought by Roger Venable on this phenomenon.

○.....**Subject: Re: [marsobservers] Mars Images (January 23rd)**  
**Received: Mon 25 Jan 2010 02:00:08 JST**

Interesting question. I would on my side relate this feature to a complete absence of white clouds above the region. The dry atmosphere enhances the contrast of ground albedo features that are going to take a deeper brown or yes sometimes deeper red color. On the images, the area is very dark in green and blue and this support the hypothesis. Recently, large areas between the NPC and temperate latitudes are seen to be completely clear (see B images), and the white clouds are more confined to the

equator and high reliefs. If not really red, the area could be deep brown at least. However here is another example of possible reddish tint just next to the NPC :

<http://astrosurf.com/planetessaf/mars/images/planches/m20100118-00h08UT-MLe.jpg>  
(also see dry atmosphere between Tharsis and Elysium on B)

Joel I would not rely on MARCI for the colors, the images look really ill-suited for this! On the professional side, HST data is more reliable. Also interesting remark about the effect of our atmosphere on colors. Certainly, visually this is one of the several filters that will disequilibrate the color balance in favor of red. However, none of the visual wavelengths are stopped by the Earth atmosphere so digital imaging can twick the balance, in theory... but they are more sources of errors, digital processing is still potentially the worst one.

Le 24/01/2010 17:26, J. Warren a écrit :

I think the feaure is real, but the color might be wrong, even with true R G B imaging. I'm basing this on watching the most current MARCI movie

[http://www.msss.com/msss\\_images/latest\\_weather.html](http://www.msss.com/msss_images/latest_weather.html)

Nothing close to a "maroon" color is seen around the NPC. Just what looks like a dark layer of dust/albedo me. Perhaps darker because of a retreating cap? Its been discussed many times before, but I doubt there is a way, even with true RGB images to pick up the "correct" color due to the atmosphere of earth. Luckily, NASA, JPL and MSSS don't have that worry.

Regards, **Joel WARREN**

○.....**Subject: Fwd: RE: Mars Images (January 23rd, 2010)**  
**Received: Wed 27 Jan 2010 07:04:14 JST**

■.....**Sujet: RE: Mars Images (January 23rd, 2010)**

**Date : Sun, 24 Jan 2010 23:31:37 -0700**

**De : Gary Rosenbaum**



Répondre à : [marsobservers@yahoogroups.com](mailto:marsobservers@yahoogroups.com)

Hi Christophe, This is excellent deductive reasoning Christophe. You may also want to consider that this clear region around the polar cap may be the southern boundary of the northern polar vortex. The vortex hugs the edge of the polar cap ice, sometimes extending just beyond the ice. It is the zone of cold descending polar air that usually flows west to east but is currently somewhat weakened and is about to reverse direction for a few months. The vortex is strongest during southern spring and summer and acts as a barrier to water vapor transport which is why we see it as a clear area in the atmosphere, like you said, devoid of significant amounts of water vapor/ice. Penetration of the vortex boundary usually occurs during storms, both baroclinic and dust storms. Occasionally you may see areas where you have essentially a clear view down to the surface that appear away from the poles and are often due to other atmospheric phenomena like planetary waves and baroclinic activity especially if you see a long thin line, sometimes curving, that appears clear of water ice haze. Some areas may just be free of water ice and not necessarily associated with storms. I have wondered why amateur images show enhanced color when viewing these clear regions and the only reason I know of is the extra amount of image processing required compared to the spacecraft orbiter and HST images. The MARCI movies are highly compressed so they are easily downloaded from the web and may not represent accurate color. You can see large areas in the MARCI movies where the vortex is just beyond the polar cap edge. There are also smaller areas where the edge of the vortex is over the cap and you see a localized brightening; just one of the explanations why we sometimes see bright spots at the cap edge. Although you will see many trends of atmospheric activity in the MARCI images it makes sense to only compare amateur images taken on the same day. I don't mean to state the polar vortex idea as an absolute fact to explain the "clear" areas we see hugging the polar cap but this is the most likely explanation I am aware of and has been my suspicion for a few years. Regards,

**Gary ROSENBAUN**

○.....**Subject: Mars images 30/31 january**  
**Received: Sun 07 Feb 2010 21:13:16 JST**

Hi all, Here are two sets of images from last week - good seeing.

[http://www.astrosurf.com/pellier/M100130\\_31a-CPE](http://www.astrosurf.com/pellier/M100130_31a-CPE) (RGB)

[http://www.astrosurf.com/pellier/M100130\\_31b-CPE](http://www.astrosurf.com/pellier/M100130_31b-CPE) (IR, B, Violet, UV)

As Damian commented already, the equatorial cloud belt is maybe forming over Chryse. Chryse is the first part of the ECB that is supposed to appear, around Ls 45-50°, and so the observations are coherent. Best wishes

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

●.....**Subject: Mars 22-January**  
**Received: Sun 24 Jan 2010 04:37:03 JST**

Dear Masatsugu, Attached is an image set of Mars taken on 22-January. The seeing was a little better than on the 18th. Elysium is still bright and conspicuous but showing a little more detail than a couple of nights ago.

Looks like clouds tonight but hopefully clearing by tomorrow. I sure hope I get some good weather as opposition approaches! Best wishes,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100118/WF118Jan10.jpg>  
<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100122/WF122Jan10.jpg>

**Bill FLANAGAN** (ビル・フナガカン Houston TX 美)

●.....**Subject: Tharsis volcanoes**  
**Received: Sun 24 Jan 2010 07:36:34 JST**

Hello everyone, Please find enclosed images taken on 17.1.10. I think this shows orographic clouds associated with the Tharsis Volcanoes and other features.

Telescope: C14 @ F45, Camera: SKYnyx 2-0M, Fil-

ters: Trutek RGB and Baader UV/IR rejection, Times: R = 23:17:30 UTC; G = 23:27 UTC; B = 23:22 UTC  
Seeing: approx. 6/10, Transparency: Mainly good but fog coming in during latter part of G filter image sequence  
Altitude: 50 deg. C.M. long: 134 deg. Angular diameter: 13.9". Best Wishes,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100117/PGb17Jan10.jpg>

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

●.....**Subject: Mars: January 23, 2010**  
**Received: Sun 24 Jan 2010 7:36 JST**

Hi - I have attached my latest images of Mars on January 23, 2010 at 4:42 UT to be posted. Thanks,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100123/FM123Jan10.jpg>

○.....**Subject: Mars: January 27, 2010**  
**Received: Thu 28 Jan 2010 14:58 JST**

Hi - I have attached my latest images of Mars January 27th between 4:37 UT and 6:38 UT to be posted.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100127/FM127Jan10.jpg>

○.....**Subject: Mars: February 1, 2010**  
**Received: Tue 02 Feb 2010 15:47 JST**

Hi, I have attached my latest image of Mars February 1, 2010 at 4:06 UT to be posted. Thanks,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100201/FM101Feb10.jpg>

○.....**Subject: Mars: February 5, 2010**  
**Received: Sat 06 Feb 2010 15:15 JST**

Hi, I have attached my latest images of Mars February 5th, 2010 to be posted. Thanks,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100205/FM105Feb10.jpg>

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

●.....**Subject: Mars image 20100123**  
**Received: Sun 24 Jan 2010 12:42:39 JST**

Hi everyone, Yesterday I reassembled my telescope after some refurbishment and I could not resist having a go at imaging Mars even though the seeing was terrible. The refigured primary is looking good. Best regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100123/SBd23Jan10.jpg>

○.....**Subject: Mars image 20100127**  
**Received: Thu 28 Jan 2010 18:15:40 JST**

Hi everyone, I should have stuck to my plan of not imaging Mars this time around as it seems there no hope for good seeing for this sort of altitude. Regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100127/SBd27Jan10.jpg>

**Stefan BUDA** (スチーフアン・ブダ Melbourne 澳)

●.....**Subject: Mars 20 January**  
**Received: Sun 24 Jan 2010 15:19:49 JST**

Hi All, I have attached RGB images of Mars from 20 January. The Olympus Mons orographic cloud is bright on the terminator; the Syrtis Blue Cloud is visible in the second image. Monochrome, UV and NIR images to follow. Best,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100123/DPk23Jan10.jpg>

○.....**Subject: Mars 20 January**  
**Received: Mon 25 Jan 2010 07:13:18 JST**

Hi All, I have attached the monochrome Mars images from 20 January plus the UV and NIR images. Best,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100120/DPk20Jan10.jpg>

○.....**Subject: Mars 31 January**

**Received: Tue 02 Feb 2010 06:26:41 JST**

Hi All, I have attached an RGB Mars image from 31 January. Interesting NPC details are starting to emerge.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100131/DPk31Jan10.jpg>

○.....**Subject: Mars 3 February, NPC Dust**

**Received: Thu 04 Feb 2010 16:37:40 JST**

Hi All, I have attached RGB images of Mars from 3 February. Dust clouds appear over eastern NPC. Numerous white clouds were seen over Chryse, Tempe, and Tharsis, with a bright AM cloud over Claritas. Violet clearing is fairly strong, especially considering that the seeing had rapidly deteriorated when the blue image was taken. Best,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100203/DPk03Feb10.jpg>

○.....**Subject: Re: Mars 3 February, NPC Dust**

**Received: Fri 05 Feb 2010 04:40:20 JST**

Hi Tim, Yes, Jeff makes a good point about the VC. I had forgotten that -- along with most other things! Best,

**Don PARKER** (トロンパーカー Miami FL 美)

●.....**Subject: Mars Drawings Kz23Jan10**

**Received: Sun 24 Jan 2010 18:53:32 JST**

南先生、村上様、1月23日分のスケッチ3枚を送信します。望遠鏡が反射経緯台のため、高度が上がると、像が真横に立つような見え方になり、スケッチの際、模様の位置取りに苦労しています。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100123/Kz23Jan10.jpg>

○.....**Subject: Mars Drawings Kz24Jan10**

**Received: Mon 25 Jan 2010 23:15:58 JST**

1月24日分のスケッチ3枚を送信します。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100124/Kz24Jan10.jpg>

○.....**Subject: Mars Drawings Kz25Jan10**

**Received: Wed 27 Jan 2010 00:33:24 JST**

1月25日は夜になって吹き飛ばされそうなくらいの強風になり、とりあえず火星を観ることを優先したため、観測時刻がいつもとずれてしまいました。強風の割には、300×を使うことができ、2枚スケッチをとりました。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100125/Kz25Jan10.jpg>

○.....**Subject: Mars Drawings Kz26Jan10**

**Received: Wed 27 Jan 2010 22:52:58 JST**

1月26日分のスケッチ4枚を送信します。仕事で帰宅が10時くらいになることが多く、また、昨日は、翌日の出勤が早いために夜更かしができて、13h20m、14h00m、14h40m、15h20mといういつもの時刻からずれてしまいました。

スケッチ後に $\omega$ を計算してみると、私の場合、模様の位置を東寄りに捉える傾向があるようです。スケッチ時に気をつけてはいるのですが...

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100126/Kz26Jan10.jpg>

○.....**Subject: Mars Drawings Kz27Jan10**

**Received: Thu 28 Jan 2010 23:23:43 JST**

1月27日分スケッチ2枚を送信します。昨日は、雲が出て、雲を通しての観測になりました。そのため、2枚目が定刻からずれてしまいました。その後、雲が厚くなり、まったく見るができなくなりました。気流の状態は比較的安定していただけに残念でした。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100127/Kz27Jan10.jpg>

○.....**Subject: Mars Drawings Kz28Jan10**

**Received: Fri 29 Jan 2010 23:15:58 JST**

いつもご指導ありがとうございます。村上さんには、別途、件名を変えて送ってみることにします。最近、眼視で見ていると、レビューヤ、エリュシウム、アエテリアと明るい部分がぼこぼこ穴が空いた蜂の巣状態に見えているのですが、CMOのHPにアップされているCCD画像を見ると、まったく違う見え方をしており、眼視とは違う見え方をするものだと思います。昨日は、シーイングが最悪で、2枚しかスケッチをとることができませんでした。今日(29日)は、完全に曇ってしまっており、お手上げ状態です。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100128/Kz28Jan10.jpg>

○.....**Subject: Mars Drawings Kz31Jan10**

**Received: Sun 31 Jan 2010 23:56:51 JST**

1月31日分スケッチ二枚を送信します。29日、30日と昼間は晴れていたのですが夜になって曇られてしまい、二日間空いてしまいました。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100131/Kz31Jan10.jpg>

○.....**Subject: Mars Drawings Kz4Feb10**

**Received: Fri 05 Feb 2010 23:58:22 JST**

2月4日分のスケッチ3枚を送信します。2月1日、3日と東京でも雪が降り、2日は夜になって曇ってしまいましたので、3日間空いてしまいました。

昨日は、仕事で帰宅が遅くなったため、観測時間がずれてしまいました。15h00mでアエテリアが顔を出して来ていますが、どうも私には、明るい部分があるように見えてしまいます。

本日(2月5日)は、待機はしているのですが、ピントが合わせられないほど気流の状態が悪く、今のところ、スケッチはとれていません。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100204/Kz04Feb10.jpg>

○.....**Subject: Mars Drawings Kz06Feb10**

**Received: Sun 07 Feb 2010 00:52:51 JST**

2月6日分スケッチ3枚を送信します。今日は、昼間はものすごい風が吹き荒れましたが、夜になって、ようやく風は収まりました。ただ、気流の状態は悪く、かろうじてピントが合わせられる程度でした。エリュシウムの形さえ明確には分からないような状態でした。ただ、火星面のあちこちに雲があり、賑やかです。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100206/Kz06Feb10.jpg>

**神崎 一郎** (Ichiro KOHZAKI 東久留米Tokyo)

●.....**Subject: Mars Images (January 23rd, 2010.)**

**Received: Sun 24 Jan 2010 22:42:34 JST**

Hi all, Some images from last night. An unexpected 15-20min break in the otherwise endless cloudiness occurred and i snapped this set just before it filled in again. Seeing was fair, but cloud related turbulence affected the B image which was shot through clouds.

None the less, its nice to get a clear view of Solis Lacus. The reddish area toward the NPC i think is real. Areas like this have been noted before (one i recall near Hellas.) These are only rendered correctly in true RGB imagery.

[http://www.damianpeach.com/mars09/2010\\_01\\_23rgb.jpg](http://www.damianpeach.com/mars09/2010_01_23rgb.jpg)

○.....**Subject: Mars Images (January 26-27th, 2010.)**

**Received: Sat 30 Jan 2010 10:02:02 JST**

Hi all, Here are some images from a couple of days ago. Seeing was good. I felt quite lucky to get a good night just 2 days before close approach.

Some interesting details can be seen. I suspect an Equatorial Cloud Band is present, though looks rather patchy in places. Note the very dark area over Acidaliu. Argyre is bright with cloud which extends into a streak toward Solis Lacus. Note the irregular NPC boundary and dark colar inside.

[http://www.damianpeach.com/mars09/2010\\_01\\_26-27rgb.jpg](http://www.damianpeach.com/mars09/2010_01_26-27rgb.jpg)

[http://www.damianpeach.com/mars09/2010\\_01\\_26-27red.jpg](http://www.damianpeach.com/mars09/2010_01_26-27red.jpg)

[http://www.damianpeach.com/mars09/2010\\_01\\_26-27green.jpg](http://www.damianpeach.com/mars09/2010_01_26-27green.jpg)

[http://www.damianpeach.com/mars09/2010\\_01\\_26-27blue.jpg](http://www.damianpeach.com/mars09/2010_01_26-27blue.jpg)

○ . . . . . **Subject: Mars Images (January 29th, 2010 - Opposition.)**  
**Received: Mon 01 Feb 2010 10:12:04 JST**

Hi all, Here are some images obtained 3-4hrs past exact opposition with Mars 99 million km distant (twice as far as in 2003!) Seeing was reasonably good at times. Regarding the CMO alert - there seems to be two localised dust areas on the NPC boundary, the primary one having moved south over Baltia, and hooking off in a north west direction. The second patch which is located just preceding the main one also shows some hints of a similar movement.

[http://www.damianpeach.com/mars09/2010\\_01\\_29rgb.jpg](http://www.damianpeach.com/mars09/2010_01_29rgb.jpg)

[http://www.damianpeach.com/mars09/2010\\_01\\_29red.jpg](http://www.damianpeach.com/mars09/2010_01_29red.jpg)

[http://www.damianpeach.com/mars09/2010\\_01\\_29grnbld.jpg](http://www.damianpeach.com/mars09/2010_01_29grnbld.jpg)

○ . . . . . **Subject: Mars Images (January 30th, 2010.)**

**Received: Wed 03 Feb 2010 03:43:13 JST**

Hi all, Here are some images from Jan 30th. The dust streaks off the NPC seems to have largely dissipated though there is some faint coloured patches that remain visible.

[http://www.damianpeach.com/mars09/2010\\_01\\_30rgb.jpg](http://www.damianpeach.com/mars09/2010_01_30rgb.jpg)

[http://www.damianpeach.com/mars09/2010\\_01\\_30redblu.jpg](http://www.damianpeach.com/mars09/2010_01_30redblu.jpg)

○ . . . . . **Subject: Mars Images (January 31st, 2010.)**

**Received: Fri 05 Feb 2010 04:40:39 JST**

Hi all, Here are some images from Jan 31st. Note the bright spot on the edge of the NPC. I wonder if this is the frosted crater Lomonosov? It seems to be in the right position. Perhaps others can comment further. Note the excellent display of the blue Syrtis cloud during the session.

[http://www.damianpeach.com/mars09/2010\\_01\\_31rgb.jpg](http://www.damianpeach.com/mars09/2010_01_31rgb.jpg)

[http://www.damianpeach.com/mars09/2010\\_01\\_31red.jpg](http://www.damianpeach.com/mars09/2010_01_31red.jpg)

[http://www.damianpeach.com/mars09/2010\\_01\\_31grnbld.jpg](http://www.damianpeach.com/mars09/2010_01_31grnbld.jpg)

○ . . . . . **Subject: Mars Images (February 1st, 2010.)**

**Received: Sat 06 Feb 2010 04:04:08 JST**

Hi all, Sadly rather poor seeing on this night, though some dustiness is visible over the NPC. Nothing new since due to poor weather.

[http://www.damianpeach.com/mars09/2010\\_02\\_01rgb.jpg](http://www.damianpeach.com/mars09/2010_02_01rgb.jpg)

○ . . . . . **Subject: Mars Images (February 5th, 2010.)**

**Received: Sat 06 Feb 2010 17:13:05 JST**

Hi all, Some images from last night. Seeing was very poor.

[http://www.damianpeach.com/mars09/2010\\_02\\_05rgb.jpg](http://www.damianpeach.com/mars09/2010_02_05rgb.jpg)

Best Wishes

**Damian PEACH** (デミアン・ピーチ Bkh 英)

● . . . . . **Subject: Re: Mars images please**

**Received: Mon 25 Jan 2010 02:55:21 JST**

Hi Masatsugu, Many apologies for my long silence! I am well. I've been completely absorbed with my terrestrial photography career & have been unable to get out and image under the stars. Here's a link to my portfolio of earth-bound images: <http://www.ethan-t-allen.com/>

I'm planing to send you images just as soon as I can!

Best wishes, happy new year & hope you are well,

*P.S.* Have you seen this superb image by Efrain Morales?

○ . . . . . **Subject: Re: About Efrain Morales**

**Received: Tue 02 Feb 2010 01:30:38 JST**

Hi Masatsugu, Efrain is a member of ALPO. I get his images from the ALPO Mars observers list on Yahoo. He is an excellent imager! I always look forward to his images. Best,

○ . . . . . **Subject: Re: Mars images please**

**Received: Tue 02 Feb 2010 02:00:33 JST**

Thanks Masatsugu! I'm glad you were reminded of Weston. He's one of my favorite photographers & I am very influenced by his work. The smoke series is a view of fashion through the filter of old and new myth. I also very much like Margaret Burke-White's images.

I was very disappointed that I could not attend the IWC MO. It sounded like a fantastic and productive event from what I've read.

BTW, One of my saturn images is on display at the Royal Observatory, Greenwich as a highly commended winner of the Astronomy Photographer of the Year competition 2009. This was in affiliation with the International Year of Astronomy 2009. Here's a link to some photo's of the exhibit:

<http://gallery.me.com/ethanallen/100068>

With the moderate El Nino this season, the sky has ben very turbulent and unfavorable for me here in California. I'll do my very best to send you Mars images just as soon as I can. The very best to you!

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

● . . . . . **Subject: Snow in flagstaff**

**Received: Mon 25 Jan 2010 04:04:33 JST**

Dear Masatsugu, I guess we're fortunate we didn't go to Flagstaff for Mars this month! See below from my friends the Brasches. Hope you're well and enjoying Mars from Fukui. Best,

■ . . . . . **Subject: Fun in Flag 2**

**Sent: Saturday, January 23, 2010 16:23 JST**

Hi All: Guess what? Another day, another 8 more inches of snow. Today is sunny and beautiful, however, and the brunt of storms are over. Flagstaff area had a record 48 inches of snow in 3 days, so much that several flat building roofs collapsed but thankfully no one was hurt. I have attached some pictures of our house and neighborhood, including a panoramic shot of a fairly rare atmospheric phenomenon called Sun Dogs, caused by ice crystals in high clouds that split sunlight into it's spectral components. Beautiful sight. Best to all, Klaus & Maggie

**Margaret and Klaus BRASCH**

○ . . . . . **Subject: CMO 366**

**Received: Wed 27 Jan 2010 09:16:15 JST**

Dear Masatsugu, I very much enjoyed "Why and How Do We Observe the Planet Mars? I" in the most recent CMO to arrive. It is good to see your broad view of the subject. Best,

**Bill SHEEHAN** (ウィリアム・シーハン MN 美)

●.....**Subject: Re: Tharsis volcanoes**  
**Received: Mon 25 Jan 2010 04:00:58 JST**

I was imaging about 15 mins after Peter and believe I caught the same phenomenon. The fog curtailed any more imaging of this rather odd appearance.

This was taken with similar scope and camera with Trutek type II filters. The red image was particularly poor and the IR useless but the blue one contained those dramatic white clouds. Regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100117/IBr17Jan10.jpg>

**Ian BRUCE** (イアン・ブルース Maidenhead 英)

●.....**Subject: Re: SAHEKI's Drawings in 1950 I**  
**Received: Mon 25 Jan 2010 04:35:44 JST**

Dear Masatsugu, Thank you for sending the drawings of Saheki. The second set of images had higher resolution: was that the intention? I could not reply to the first set because I was without internet for several days last week. Again my thanks

○.....**Subject: Re: FW:SAHEKI's Drawings**  
**Received: Mon 25 Jan 2010 04:48:20 JST**

Thanks again for these, Masatsugu. We have as an 'original' hand drawn version in our files the drawing dated 1950 Jan 15d 19h 30m UT (16d 04h 30m JST) showing the protruding cloud at the S. limb which caused a lot of interest at the time.

I would be very glad to get a nice scan of a photograph of Mr Saheki. You printed one in the OAA Communciations some years ago. Maybe it would be possible to obtain a good scan of that for the BAA Section Album, which contains hundreds of famous observers, past and present. If so I would be very glad, and it would complete this project very nicely.

I cannot say much about my recent views of Mars except to explain that clouds, snow and ice have prevented anything being done. One significant observation on Jan 3, however, may interest you: I obtained a very fine view of the Syrtis Blue cloud right on the following limb of the planet. With sincere regards

○.....**Subject: Re: Alive and not dead!**  
**Received: Wed 03 Feb 2010 18:03:20 JST**

Dear Masatsugu, Hello and thanks. I had a hardware problem at home for five or six days during which I had no internet access; this however was fixed a few days ago. I then became interested in the Baltia-NPC dust event, but by then there were nearly 100 unanswered emails. I was also busy observing myself due to a run of clear nights. Thank you very much for the drawings from Saheki, which I have received safely but have not yet downloaded. The copies you now sent me seem to have higher resolution than the earlier ones emailed. Is that so? They will be most useful for our records. I will be delighted to get the portrait.

Meanwhile the BAA E Circular service was also interrupted for several days due to a change of server. I sent two circulars. One about the NPC annular rift followed by another about the dust storm. I have not yet received the second one myself and so I do not think the system

has sent it yet. The messages I sent were through the BAA system rather than through my email list.

I am trying to deal with the enormous number of images now being received! I will write again later. It seems our connection is fine. With regards

○.....**Subject: Re: Alive and not dead!**  
**Received: Sat 06 Feb 2010 06:11:46 JST**

Dear Masatsugu, Thanks for this nice portrait of Saheki and thanks to to his son. The BAA portraits collection is in albums as hardcopy, neither scanned nor on the internet. It is just a big collection of observers' portraits I have collected over the years, partly from the internet, mostly from the observers themselves, books and magazines. With regards

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

●.....**Subject: mars 23 & 24 jan**  
**Received: Mon 25 Jan 2010 05:41:42 JST**

Hi Minami, ! Seeing & atmosphere were average,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100123/SGh23Jan10.jpg>

**Sadegh GHOMIZADEH**

(サデグ・ゴミザデ Tehran 伊朗)

●.....**Subject: Mars 20 and 21 January**  
**Received: Mon 25 Jan 2010 08:14:50 JST**

Images with fair-medium seeing

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100120/JS20Jan10.jpg>

○.....**Subject: Mars 2 February**  
**Received: Wed 03 Feb 2010 07:26:13 JST**

Polar storm is visible

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100202/JS02Feb10.jpg>

○.....**Subject: Mars 7 February**  
**Received: Sun 07 Feb 2010 22:14:43 JST**

Hello: Images with fair seeing. Blue clouds over Syrtis Major.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100207/JS07Feb10.jpg>

**Jesús SÁNCHEZ** (ヘス・サンチェス Córdoba 西)

●.....**Subject: Mars Image - January 23, 2010**  
**Received: Mon 25 Jan 2010 10:13:27 JST**

Gentlemen, Attached is my Mars image from January 23. Regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100123/PGc23Jan10.jpg>

○.....**Subject: Mars Image - January 24, 2010**  
**Received: Thu 28 Jan 2010 15:05:14 JST**

Gentlemen, Attached is my Mars image from January 24. Regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100124/PGc24Jan10.jpg>

○.....**Subject: Mars Image - January 28, 2010**  
**Received: Sun 31 Jan 2010 08:01:35 JST**

Gentlemen, Attached is my Mars image from January 28. Regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100128/PGc28Jan10.jpg>

○.....**Subject: Mars Image - February 2, 2010**  
**Received: Thu 04 Feb 2010 15:34:34 JST**

Gentlemen, Attached is my Mars image from February 2. Regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100202/PGc02Feb10.jpg>

○.....**Subject: Mars Image - February 4, 2010**  
**Received: Sat 06 Feb 2010 14:58:04 JST**



Gentlemen, Attached is my Mars image from February 4. Regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100204/PGc04Feb10.jpg>

**Peter GORCZYNSKI** (ヒーター・コルチンスキCT 美)

●.....**Subject: Mars, 25th January, CM 110.7**  
**Received: Tue 26 Jan 2010 00:01:05 JST**

Hi all, Like Damian's last session, this morning provided an unexpected break in the clouds along with a noticeable drop in temperature! The seeing was a bit rosey with one period rendering Mars as little more than an exploded fuzz ball! Registax has done a good job here, pulling out far more than I'd hoped. The small Mars is there because I think it helps the eye visualise some of the larger areas of subtle shading better. Best regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100125/PLw25Jan10.jpg>

○.....**Subject: Mars rotation sequence, Jan 26th, 22:55-02:15**  
**Received: Fri 29 Jan 2010 01:28:55 JST**

Hi all, Despite fairly poor seeing at times, I managed enough captures of Mars on the morning of 26th January to put together an animation. All images were taken with a C-14 working at  $f/67$  (5x Powermate) and filtered through a 742nm IR filter. Processing: Registax registration and stacking followed by wavelet sharpening. Capture sequence, 22:55 to 02:15 in 10 minute increments.

Animation URL:

<http://www.digitalsky.org.uk/Mars/Mars-26-Jan-2010.html>

○.....**Subject: Mars, Jan 30th, CM 53.4**  
**Received: Mon 01 Feb 2010 04:44:13 JST**

Hi all, A little later than Ian's great image shows the dust cloud almost on the CM with an apparent offset to the component further to the south of the north polar cap's southern boundary.

[http://www.digitalsky.org.uk/mars/2010-01-30\\_01-00-57\\_RGB-flat.jpg](http://www.digitalsky.org.uk/mars/2010-01-30_01-00-57_RGB-flat.jpg)

○.....**Subject: Mars, Feb 1st, CM 338.4 - interesting NPC**  
**Received: Tue 02 Feb 2010 23:28:10 JST**

Hi all, Here's a shot of Mars from Feb 1st showing interesting detail in the north polar cap. The seeing was reasonably good on this occasion but the transparency very variable. I should also have a shot of the planet from a bit later on in the night. The Moon was very hazy in the sky but Mars remained clear enough for a capture session.

[http://www.digitalsky.org.uk/Mars/2010-02-01\\_21-40-22\\_RGB-100pct.jpg](http://www.digitalsky.org.uk/Mars/2010-02-01_21-40-22_RGB-100pct.jpg)

○.....**Subject: Mars, Feb 1st, CM 343.1**  
**Received: Wed 03 Feb 2010 18:34:15 JST**

Hi all, No Mars last night due to the arrival of rain. However, it did give me more time to process in a more considered manner. Here's a view of Mars from the 1st February, taken slightly later than my last email under good seeing. One more image to go from this night taken at around 00:40 which shows the dust streak at a demonstrably different angle; I'll post this image later.

[http://www.digitalsky.org.uk/Mars/2010-02-01\\_22-00-04\\_RGB\\_150V4.jpg](http://www.digitalsky.org.uk/Mars/2010-02-01_22-00-04_RGB_150V4.jpg)

Best regards,

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

●.....**Subject: Mo24Jan10**  
**Received: Tue 26 Jan 2010 02:21:03 JST**

24Janを送ります。この他、19Janはこの間送った後、撮った画像です。その他、17, 18, 23, 24, 25日と20分おきに5~6画像ずつ撮っています。とりあえず、最初の方だけ処理して送ります。晴れが続くと少々しんどくなります。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100119/Mo19Jan10.jpg>  
<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100124/Mo24Jan10.jpg>

○.....**Subject: Mo29Jan10**  
**Received: Sat 30 Jan 2010 02:49:34 JST**

お世話になります。今日は、透明度は良好ですが、Seeingは相変わらず良くありません。昨日の方がどちらかと言えば、良いようですがこのところ同じような日が続いています。連日、撮っていて、時間がありませんが出来るだけ送るようにします。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100129/Mo29Jan10.jpg>

○.....**Subject: 黄塵画像**  
**Received: Fri 05 Feb 2010 03:01:54 JST**

メールを頂いてから色々処理を進めてきましたがなかなかうまくいきません。17日004°Wと19日の画像を送ってみます。

○.....**Subject: Mo07Feb10**  
**Received: Mon 08 Feb 2010 01:53:35 JST**

今日は天候も良く張り切って準備をしましたが、やっと火星の姿が見え始めたころ曇ってしまいました。かろうじて雲間から撮像できた貴重な1枚をお送りします。黄塵はまだ残っているようです。これから晴れるのが楽しみです。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100207/Mo07Feb10.jpg>

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

●.....**Subject: Mars Pics from 10/23/01**  
**Received: Tue 26 Jan 2010 02:46:12 JST**

This is my current Mars picture from January 23rd, 0.40 GMT. The picture was sized up to 130%.

Scope: Newtonian 30cm@ $f/30$ , Hormersdorf/Germany, DMK21BF04, Astronomik RGB filters, Seeing 7/10.

Best regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100123/JLr23Jan10.jpg>

○.....**Subject: Mars picture 2010/01/26**  
**Received: Fri 29 Jan 2010 05:13:48 JST**

This is my current Mars picture from January 26th, 23.50 GMT. The picture was sized up to 130%.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100126/JLr26Jan10.jpg>

**Joachim LORENZ** (ヨハヒム・ローレンツ Hormersdorf徳)

●.....**Subject: SAHEKI's Drawings 2**  
**Received: Tue 26 Jan 2010 05:19:59 JST**

南政次様、写真付きメールにすると保存される枚数が限られているようで送る事ができません。再度送ります。No.2 Mars 45~80(1950.2.6~3.27) 添付ファイル: No.45,46.jpg, No.47,48.jpg, No.49,50.jpg, No.51,52.jpg, No.53,54.jpg, No.55,56.jpg, No.57,58.jpg, No.59,60.jpg, No.61,62.jpg, No.63,64.jpg, No.65,66.jpg, No.67,68.jpg, No.69,70.jpg, No.71,72.jpg, No.73,74.jpg, No.75,76.jpg, No.77,78.jpg, No.79,80.jpg

○.....**Subject: SAHEKI's Drawings 3Mars 81~116**  
**Received: Tue 26 Jan 2010 05:22:29 JST**

南政次様、 No.3 Mars 81~116(1950.3.28~5.18)

添付ファイル: No.81,82.jpg, No.83,84.jpg, No.85,86.jpg,

No.87,88.jpg, No.89,90.jpg, No.91,92.jpg, No.93,94.jpg,  
No.95,96.jpg, No.97,98.jpg, No.99,100.jpg, No.101,102.jpg,  
No.103,104.jpg, No.105,106.jpg, No.107,108.jpg, No.109,110.jpg,  
No.111,112.jpg, No.113,114.jpg, No.115,116.jpg

○.....**Subject: SAHEKI's Drawings 3 No.117 ~147**  
**Received: Tue 26 Jan 2010 05:25:06 JST**

南政次様 No.4 Mars 117~147,0195(1950.5.18~8.30)

添付ファイル: No.117,118.jpg, No.119,120.jpg,  
No.121,122.jpg, No.123,124.jpg, No.125,126.jpg, No.127,128.jpg,  
No.129,130.jpg, No.131,132.jpg, No.133,134.jpg, No.135,136.jpg,  
No.137,138.jpg, No.139,140.jpg, No.141,142.jpg, No.143,144.jpg,  
No.145,146.jpg, No.147.jpg, Scan0195.jpg

○.....**Subject: 恒夫写真0142**  
**Received: Wed 27 Jan 2010 05:15:57 JST**

南政次様、写真館で撮った家族との集合写真は  
沢山あるのですが一人の写真はなかなか見つか  
りません。『天界』追悼集の写真が一番良さそ  
うです。1994年8月77歳の時のものです。

**佐伯 雅夫** (Masao SAHEKI 伊丹Hyogo)

●.....**Subject: Mars-2010-01-25-KUMAMORI**  
**Received: Tue 26 Jan 2010 18:59:22 JST**

南政次様、熊森照明です。一応晴れましたが、  
不安定で、雲間からの撮影になりました。シー  
イングも悪く、詳細は不明です。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100125/Km25Jan10.jpg>

○.....**Subject: Mars-2010-01-26-KUMAMORI**  
**Received: Wed 27 Jan 2010 19:15:04 JST**

夕方から良く晴れてきました。冬型も緩み地上  
の風はほとんどありませんが、モヤモヤと火星は  
揺れ動いていました。細かな模様は良く分かり  
ませんが、火星らしい姿を堪能しました。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100126/Km26Jan10.jpg>

○.....**Subject: Mars-2010-01-28-KUMAMORI**  
**Received: Fri 29 Jan 2010 18:53:33 JST**

最接近の日ですが、シーイングはやはり良くあ  
りません。撮影途中で雲がやってきて、雲が無  
くなったときにはベランダから火星は見えなくな  
ってしまいました。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100128/Km28Jan10.jpg>

○.....**Subject: Mars-2010-01-29-KUMAMORI**  
**Received: Sun 31 Jan 2010 07:55:48 JST**

1日中穏やかそうに晴れていたのですが、夜は  
風が強くなり望遠鏡も揺れて、火星が写野から  
はみ出しそうになりました。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100129/Km29Jan10.jpg>

○.....**Subject: Mars-2010-02-03-KUMAMORI**  
**Received: Thu 04 Feb 2010 20:43:33 JST**

1月30日から曇りと雨が続き、ようやく晴れ  
ました。黄雲のメインは裏側になってしまいま  
したが、仕方ありません。アウソニア?あたりの  
雲は、撮影中、火星からはみ出しているように  
見えていました。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100203/Km03Feb10.jpg>

○.....**Subject: Mars-2010-02-05&06-KUMAMORI**  
**Received: Mon 08 Feb 2010 17:02:25 JST**

2月5日、6日の火星像です。晴れてはいる  
のですが、シーイングも悪く撮影意欲が減退し  
てしまっています。よろしくお願いたします。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100205/Km05Feb10.jpg>  
<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100206/Km06Feb10.jpg>

**熊森 照明** (Teruaki KUMAMORI 堺 Osaka)

●.....**Subject: (no subject)**  
**Received: Wed 27 Jan 2010 01:30:09 JST**

Hello, I send to you a new picture that I obtained the  
night, 24th january of 2010. 23:51 GMT.

Telescope Meade LX 90 F=2000 X 3

LPI Meade Camera. Yours sincerely

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100124/FFn24Jan10.jpg>

○.....**Subject: Mars 20100125 2217 GMT**  
**Received: Fri 29 Jan 2010 00:04:27 JST**

Hello, I send to you a new picture that I obtained the  
night, 25th january of 2010. 22:17 GMT

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100125/FFn25Jan10.jpg>

○.....**Subject: Mars 20100201 2218 GMT**  
**Received: Thu 04 Feb 2010 21:01:09 JST**

Hello, I send to you a new picture that I obtain the  
night, 1st february of 2010. 22:18 GMT

Yours sincerely

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100201/FFn01Feb10.jpg>

**Francisco José FERNÁNDEZ GÓMEZ**

(フランススコホセ・フェルナンデス・ゴメス Ourense 西班牙)

●.....**Subject: hi**  
**Received: Wed 27 Jan 2010 08:27:35 JST**

Dear Masatsugu, The last ten days or so have been very  
interesting. On January 21 an intoxicated driver veered  
into my lane of traffic and demolished my car and almost  
me. I escaped with a cracked and very painful sternum.  
Airbag deployment broke my glasses. The optometrist  
who checked my vision turned out to be our friend  
Myron Wasiuta, with whom I had a very pleasant visit  
and from whom I obtained an excellent prescription for  
new glasses. I was very happy to meet him in person.

I am presently too sore to observe, opposition or not. I  
hope that soreness will not last long. Here I am hoping  
you never have a car wreck. Sincerely,

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

●.....**Subject: mars sketches 26/01/10**  
**Received: Thu 28 Jan 2010 04:11:51 JST**

Hi, here are my sketches from 26 January.

sketch 1:Date: 26/01/10, Time: 20h00 UT; location:  
Bornem, Belgium, instrument: 12" f/5 dobson  
magnification: 300x,seeing: fair

sketch2:Date: 26/01/10, Time: 22h30 UT; instrument: 8"  
f/5 dobson & 12" f/5 dobson, magnification: 277x &  
300x ; seeing: good. Greetings,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100126/KSm26Jan10.jpg>

○.....**Subject: mars sketche 06/02/10**  
**Received: Sun 07 Feb 2010 00:12:38 JST**

Hi, here is my sketch from 6 february.

Date: 06/02/10; Time: 00h00 UT; seeing: good; filters:  
#82A Blue. Greetings,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100206/KSm06Feb10.jpg>

**Kris SMET** (クリス・スメト Belgium 比利时)

●.....**Subject: Mars 26th January - very good seeing**  
**Received: Thu 28 Jan 2010 08:05 JST**

For some reason, the conditions in mid sussex were the best I have seen for Mars. Visually I could see loads of detail at the eyepiece, so I knew I was in for a good session. I could see fine detail on the screen when focussing and during capture. I wish I had a bit more image scale..... Here are a couple of images from the session.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100126/PEd26Jan10.jpg>

○.....**Subject: Mars 29th Jan - more good seeing**  
**Received: Sun 31 Jan 2010 02:08 JST**

We are blessed with some good seeing for a change near opposition. Attached is an image from last night under gusty cold conditions, but good seeing. Some division in the N polar cap is visible as it begins to melt and some high white cloud or mist on the western limb.

regards

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100129/PEd29Jan10.jpg>

**Peter EDWARDS** (ヒーター・エトワース WS 英)

●.....**Subject: Mars 26th Jan**  
**Received: Fri 29 Jan 2010 05:24:31 JST**

Hi, Here is a view showing some interesting cloud detail from last Tuesday, 26th Jan, the only clear night for a while at my location. I've been trying to get a good image of this side of Mars since 2005 and was getting desparate ....can relax a bit now! Cheers,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100126/MLw26Jan10.jpg>

○.....**Subject: Mars Morning of 30th Jan**  
**Received: Sun 31 Jan 2010 09:52:28 JST**

Another night of reasonable seeing and I'm making the most of it! Regards

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100130/MLw30Jan10.jpg>

○.....**Subject: Mars Evening of 30th Jan**  
**Received: Mon 01 Feb 2010 09:02:49 JST**

Last one from the recent period of reasonable seeing. Hints can still be seen of the dust incursion into the NPC. Seeing not nearly so good tonight. Cheers,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100130/MLw30Jan10n.jpg>

○.....**Subject: Re: Mars Images (February 5th, 2010.)**  
**Received: Mon 08 Feb 2010 09:17:30 JST**

Hi, Here is another image of Mars from a little later on the same night, in variable, jittery seeing, but showing some NPC details. Cheers,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100205/MLW05Feb10.jpg>

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

●.....**Subject: Mars am 27th Jan 010**  
**Received: Fri 29 Jan 2010 06:56:52 JST**

Hi Guys some of the UK had some decent seeing at last, around 6-7 of 10. I have seen some nice images from Pete L Peter E and Martin L, all who took advantage of the seeing bubble. Well here's my hours worth, although the seeing was pretty stable, I felt it was a little soft, I don't know what you guys thought. It was -3°C at my location with one dome shutter refusing to slide fully shut due to ice. I need a ray gun !

Anyway the sunrise & sunset clouds shown in the blue images added a nice interesting touch to the scene from my spaceship. Synthesised green was used throughout.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100126/DTy26Jan10.jpg>

○.....**Subject: Mars Images**  
**Received: Tue 02 Feb 2010 21:21:21 JST**

Hi Guys, Here are a couple of Mars images from the 29th . They show the current dust streak on the edge of the NPC.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100129/DTy29Jan10.jpg>

○.....**Subject: Mars 5th Feb 2010**  
**Received: Mon 08 Feb 2010 19:22:14 JST**

Hi Guys Here are a few images from the 5th seeing was visually quite good, but "morphing" turbulence is not well grasped by registax, which works better on a "rigid jitter". Best wishes

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2009/100205/DTy05Feb10.jpg>

**Dave TYLER** (テラウイト・タイラー Bkh 英)

●.....**Subject: Mars Observation (January 28, 2010)**  
**Received: Sat 30 Jan 2010 05:49 JST**

Dear Mr. Murakami, I hope that you, Dr. Minami, and the staff of the OAA Mars Section is doing well. This is an exciting apparition considering that it is an aphelic one. The North Polar Cap (NPC) is shrinking (evaporation) rapidly. The images on the CMO web site look very good.

I made an observation of Mars under average seeing conditions (5/10) with brief moments of steady seeing (7/10). The amount of detail visible was impressive considering that Tharsis was visible. I made sectional sketch of the Mare Erythraeum/Solis Lacus regions which appeared mottled and with fine detail. I welcome any comments on my observation.

**Date (U.T.) January 28, 2010; Time (U.T.): 05:00-06:00**

CM (Degrees West): 128.8-143.4; Ls 043.9°, De 14.8°, Ds 16.9°, p 1.00, 14.1"; Instrument: 9-inch (23-cm) F/13.5 Maksutov- Cassegrain; Magnification: 295x and 388x; Filters (Wratten): 30 (Magenta) and 80 (Blue); Seeing (1-10): 5 (moments of 7), Antoniadi 9I-V): III-II; Transparency (1-6): 4

**Notes:** 05:15 U.T. (CM 132.4°W, Wratten 30 (Magenta)): The North Polar Cap (NPC) appeared brilliant (10/10) surrounded by a dark to dusky (3-4/10) collar comprised of Lemuria. Tharsis appears dusky to shaded (4-6/10) and mottled on the central meridian (CM). Ceraunius appears as a dusky (4/10), broad streak on the CM over the northern hemisphere. Mare Acidalium appears dark to dusky (3-4/10) with bright to very bright (7-8/10) haze over it over the South-preceding (SP) limb. Nilokeras (4/10) and Lunae Lacus (4-5/10) are visible extending from the South-following border of Mare Acidalium. A very bright (8/10) cloud is visible over Tempe. Ganges appears as a broad, dusky to dull (4-5/10) band extending between Lunae Lacus and Aurorae Sinus (3-4/10). The Propontis Complex appears dark to dusky (3-4/10) over the North-following (Nf) limb. Solis Lacus appears dark to dusky (3-4/10) with Calydon (4/10) and Eosphoros (4/10) projecting from it's northern border. Agathodaemon (Coprates) is visible projecting from the following border of Aurorae Sinus. Aonius Sinus is visible as a dusky (4/10) wedge towards the southern limb. Mare Sirenum appears dark to dusky (3-4/10) with dull (5/10) projections extending over it's northern border appearing to connect to Valhalla (4-5/10). Trivium Charontis is visible over the following limb and appears dusky (4/10). Evening limb haze (ELH), morning limb haze (MLH), and the southern limb appear very bright to extremely bright (8-9/10).

**05:45 U.T.** (CM 139.7°W, Wratten 80 (Blue)): An very to extremely bright (8-9/10) cloud is visible over the preceding limb over Mare Acidalium. A bright to very bright (7-8/10) cloud is visible over Chryse/Xanthe and projecting into Tharsis. A bright to very bright (7-8/10) cloud is visible over Tempe. A very to extremely bright (8-9/10) cloud is visible over Elysium on the following limb. A very to extremely bright (8-9/10) cloud is visible over the Propontis complex region on the following limb. Evening limb haze (ELH), morning limb haze (MLH), and the southern limb appear very bright to extremely bright (8-9/10). I made a sectional sketch of the South-preceding (Sp) limb which contained Mare Erythraeum and the Solis Lacus regions. Mare Erythraeum appeared dark to dull (3-5/10) and mottled. Agathodaemon (Coprates) appeared as a dark to dusky (3-4/10) projection from the following border of Aurorae Sinus (3-4/10). Tithonius Lacus appeared as a dark to dusky (3-4/10) "knob" at the following end of Agathodaemon. Baetis appeared as a dusky (4/10) projection from the following border of Aurorae Sinus. Solis Lacus appeared dark to dusky (3-4/10) with Calydon (4/10) and Eosphoros (4/10) projecting from it's northern border. Aonius Sinus appeared as a dusky (4/10) wedge towards the southern limb.

The best of luck in your own imaging/observations of Mars. Regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100128/Chr28Jan10.jpg>

○.....**Subject: Mars Observation (January 29, 2010)**  
**Received: Tue 02 Feb 2010 03:09 JST**

Dear Mr. Murakami, I hope that you, Dr. Minami, and the staff of CMO all enjoy clear and steady skies to observe Mars. I made an observation of Mars on January 29, 2010 under good to very good seeing conditions (7-8/10). The amount of detail visible over the regions between Chryse/Xanthe (on the preceding (evening) limb) and Elysium (on the following (morning) limb) was impressive. Albedo features over the Tharsis region, during moments of very steady seeing, exhibited a complex mottling that was difficult to render. I welcome any comments on my observations.

**Date (U.T.): January 29, 2010; Time (U.T.): 05:30-06:30;**  
CM (Degrees West): 127.4°-142.0°; Ls: 044.4° (Mid-Northern Spring /Southern Autumn); De: 014.6°, Ds: 17.1°, p 100%, 14.1"; Instrument: 9-inch (23-cm) F/13.5 Maksutov-Cassegrain; Magnification: 295x and 388x; Filters (Wratten): 30 (Magenta) and 80 (Blue); Seeing (1-10): 7-8, Antoniadi (I-V): II; Transparency (1-6): 5

**Notes:** 05:45 U.T. (CM 131.0°W, Wratten 30 (Magenta)): The North Polar Cap (NPC) appears brilliant (10/10) with a dark (3/10) collar comprised of Mare Boreum. Mare Sirenum appears dark to dusky (3-4/10) over the southern limb with dull (5/10) projections from it's northern border connecting to "Valhalla" (4-5/10). Tharsis appears dusky to shaded (4-6/10) and mottled over the central meridian (CM). Nix Olympica appears as a bright to very bright (7-8/10) orographic cloud (Mountain-associated) is visible following the CM over the Tharsis region (a water-ice cloud over the flanks of Olympus Mons). Mare Acidalium appears dark to dusky (3-4/10) over the North-preceding (Np) limb with a dusky to dull (4-5/10) Nilokeras connecting to a dusky (4/10) Lunae Lacus. Chryse-Xanthe appears very to extremely bright (8-9/10) over the preceding (morning) limb. Ganges appears as a dull (5/10) band extending between Lunae Lacus and Aurorae Sinus (3-4/10). Agathodaemon (Coprates) appears a thin, dark to dusky

(3-4/10) projection extending from the following border of Aurorae Sinus. Tithonius Lacus appears a dusky (4/10) "knob" at the following end of Agathodaemon. Mare Erythraeum appears dusky to dull (4-5/10) and mottled and bright to very bright (7-8/10) haze over it on the preceding limb. Solis Lacus appears dark to dusky (3-4/10) and "fan-shaped" towards the South-preceding (Sp) limb. Aonius Sinus appears as a dark (3/10) wedge towards the southern limb. Trivium Charontis and the Propontis Complex appear as dark to dusky (3-4/10) condensations towards the following (morning) limb. Elysium appears bright to very bright (7-8/10) towards the following limb. Memnonia and Zephyria appear bright (7/10) without any detail visible within. The evening limb haze (ELH), southern limb haze (SLH), and morning limb haze (MLH) appear very to extremely bright (8-9/10).

**06:15 U.T.** (CM 138.3°W, Wratten 80 (Blue)): The North Polar Cap (NPC) appears brilliant (10/10). A bright to very bright (7-8/10) cloud is visible over Tempe. A very to extremely bright (8-9/10) cloud is visible over Chryse-Xanthe. Nix Olympica appears a bright to very bright (7-8/10) cloud following the CM. A bright to very bright (7-8/10) cloud is visible over Elysium. The preceding (evening) limb, southern limb, and following (morning) limbs appear very to extremely bright (8-9/10).

The best of luck.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100129/Chr29Jan10.jpg>

**Carlos HERNANDEZ**

(カールロス・ヘルナンデス FL 美)

●.....**Subject: mars obs 26 and 29th from SMk**  
**Received: Sun 31 Jan 2010 00:43:20 JST**

Good afternoon Richard, good afternoon Masatsugu san, After a certain long absence due to occupations, flu and bad weather, here are my last observations of mars performed here. Just on use the 300mm cassegrain recently but due to bad seeings level for the moment it does not out perform the 150mm which reveals the same amount of details. Here are my obs of 26 and 29th which reveal strong hazing and highly probably for the EBC clouds reported in green light on 29th. Some general notes and dedicated notes and included in each word file. Ask me for any clarification, will be with pleasure. Sorry for the limited scan, I am on a stronger model on waiting.

Faithfully yours.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100126/SMk26Jan10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100129/SMk29Jan10.jpg>

○.....**Subject: Re: Alert from the CMO**  
**Received: Sun 31 Jan 2010 20:54:57 JST**

High good morning, Thanks for the alert. I was these 2 last evenings on the subject and visually checking some events on mars. I think this should be taken with care as if some bright dots are well seen with the cassegrain 150 and the 300mm into the cap, at the mare acidalium border and elsewhere, if something is present its contrast is actually tenuous and more than the bright dots can be revealed into the cap. However what is sure is that into the cap there is bright white dots brighter than the cap brightness itself. Will continue to catch something more but this need more stable images. Last time was with the 305 cassegrain with 339x only. Anyway here is my report of yesterday. Faithfully yours.



<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100130/SMk30Jan10.jpg>

○.....**Subject: Re: Alert from the CMO**  
**Received: Tue 02 Feb 2010 19:42 JST**

Dear Masami San, Please receive the comments that I send to Richard McKim concerning the polar cap alert. Just for exchanging thoughts and share about this rare event that I did to Richard.

Faithfully yours.

○.....**Subject: Re: Alert from the CMO**  
**Received: Wed 03 Feb 2010 04:11 JST**

Good evening, Here is my observations of yesterday, just with the 150mm refractor under the conditions difficult at the height of the planet here local and stopped by clouds after 20H15 UT. The Mare Acidalium event was recorded but frankly it is needed to make follow-up of the cap thawing as this unusual phenomena may occur elsewhere on possibly dark features on the boundary cap border. Some other observers recorded such on the net.

I am very sorry to do not able to pursue on this subject, because the local weather forecast is not good here for 8-10 days incoming, but have a look on anyway for few minutes of sky opening if present. So best hope and good skies to the community.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100201/SMk01Feb10.jpg>

○.....**Subject: SMk obs of Mars on 05th last**  
**Received: Sat 06 Feb 2010 22:27 JST**

Dear CMO observers, Here is the personal obs here for Mars last 05th in different colours. Comments for each view is given in relation. I invested in a scanner photo and I hope this is an help more for the community and the publishers on the net. Ask me if you need scans from previous documents, i will do for with a great pleasure.. Faithfully yours.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100205/SMk05Feb10.jpg>

**Stanislas MAKSYMOWICZ**

(スタニスラス・マクシモウイッチ Ecquevilly 法)

●.....**Subject: : Mars Ak28Jan10 Ak29Jan29**  
**Received: Sun 31 Jan 2010 10:26:03 JST**

南様、おはようございます。久々の火星画像ですが、上空の風の影響でふらふらした像でしまりません。今年は気流が悪く、変です。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100128/Ak28Jan10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100129/Ak29Jan10.jpg>

○.....**Subject: Re: 北の極冠の中に、黄塵が発生**  
**Received: Mon 01 Feb 2010 09:12 JST**

村上様、おはようございます。今朝、火星は流れる雲の中、何とか画像を撮れましたが、最悪の気流で朦朧状態でした。仕事が忙しく、画像が送れるのは今夜になると思います。

○.....**Subject: Mars** Ak31Jan 10 Ak02Feb10 Ak03Feb10 Ak05Feb10 Ak06Feb10  
**Received: Sun 07 Feb 2010 23:29:17 JST**

ご無沙汰しています。体調が不良にて画像処理が出来ないままでしたが、少し回復しましたので、送ります。屋上の風が強く、像がぶれています。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100131/Ak31Jan10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100202/Ak02Feb10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100203/Ak03Feb10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100205/Ak05Feb10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100206/Ak06Feb10.jpg>

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

●.....**Subject: Mars from 17.12.09, 5.1.10 and 26.1.10**  
**Received: Mon 01 Feb 2010 01:43:28 JST**

Dear Masatsugu, in the attachment you find the results of my observations from the last weeks. Very sparse, i now, but actual we have all, that astronomer don't want: Snow, wind, clouds, mist ....! The image from 26.1. was taken at a temperature of -16,3°C. Yesterday, i couldn't move my mobile shack, that saves the telescope - it was frozen on the ground. With best wishes

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/091217/RGh17Dec09.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100105/RGh05Jan10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100126/RGh26Jan10.jpg>

**Ralf GERSTHEIMER**

(ラルフ・ゲルシュトハイマー Habichtswald 徳)

●.....**Subject: Mars Jan 29th and 30th Detail in NPC**  
**Received: Mon 01 Feb 2010 02:33:03 JST**

Hi all, Good seeing on 29th and fair seeing on 30th from here on South Coast of England. Definite detail (dust?) visible in the NPC especially on the 29th.

<http://www.astro-sharp.com/images/mars2010/mars-2010-01-29-23-14-ids.jpg>

<http://www.astro-sharp.com/images/mars2010/mars-2010-01-30-21-49-ids.jpg>

○.....**Subject: Mars 31st Jan 2010 CM=2.3 Good Seeing**  
**Received: Mon 01 Feb 2010 20:07:21 JST**

Hi all, Good seeing again. Here's the best of 3 images from last night.

<http://www.astro-sharp.com/images/mars2010/mars-2010-01-31-22-42-IDS.jpg>

Best Regards

**Ian SHARP** (イアン・シャープ° WS 英)

●.....**Subject: Mars 2010/01/30**  
**Received: Mon 01 Feb 2010 02:37:29 JST**

Hello, Here is Mars on 2010/01/30 (2 sets ): The transparency was very good and the seeing was fair. T = -1,5°C. A dust front is observed transiting over the NPC (as alerted by the CMO). Note also how important are the morning mist over Tharsis, and the developing equatorial cloud belt over Chryse. Regards

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100130/JPp30Jan10.jpg>

○.....**Subject: Mars 2010/01/31**  
**Received: Tue 02 Feb 2010 17:37:10 JST**

Hello, Here is Mars on 2010/01/31 ( 3 sets + 1 animation): The transparency was very good and the seeing was fair. Temperature : -4,8°C. Regards

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100130/JPp30Jan10n.jpg>

**Jean-Jacques POUPEAU**

(ジャン=ジャック・プーポ - Essonne 法)

●.....**Subject: RE: Alert from the CMO**  
**Received: Mon 01 Feb 2010 08:22 JST**

Hi Masami, Please see Paulo's images at <http://astrosurf.com/pcasquinha/mar100129.jpg>

from ALPO Mars Observers post 12876. (See also

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100129/PCq29Jan10.jpg>

*Ed.*) His excellent images, and especially the red filter image show the same pattern of streaks on the NPC with the same face of Mars visible that I imaged, only mine were 28 days earlier than his. Please see

<<http://groups.yahoo.com/group/marsobservers/photos/album/784968176/pic/1530254672/view?picmode=&mode=t>

n&order=ordinal&start=21&count=20&dir=asc>

Note, the cap has receded since my images on January 01. I think our images show some of the same features that CMO Japan referenced in its alert that I received. I thought the NASA explanation was that these streaks were primarily ground dust settling out from dust plumes. The brownish bright spot in M. Boreum may be new! Is that bright spot primarily what your alert was referencing? Thanks. Best regards,

**Jim MELKA** (ｼﾞﾑ・メルカ St Louis MO 美)

●.....**Subject: Mars 29 Jan 2010**  
**Received: Mon 01 Feb 2010 19:39:43 JST**

Dear All, Fair conditions on the Evening of the 29th Jan. All the best.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100129/SKd29Jan10.jpg>

**Simon KIDD** (サイモン・キッド Herts 英)

●.....**Subject: Mars, Jan 30th, CM 26.9**  
**Received: Mon 01 Feb 2010 10:14:36 JST**

Folks, Moderate seeing prevailed here in Dublin last night. The attached result follows a collaborative effort by Carl O'Beirnes and myself. The north polar cap appears to be fading fast. Regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100130/DGn30Jan10.jpg>

**Dave GRENNAN**

(デヴィッド・グレナン Dublin 愛爾蘭)

●.....**Subject: Mars 01 Feb 2010**  
**Received: Mon 01 Feb 2010 23:28:15 JST**

Dear sirs: One of this morning photo of Mars. This one in BW is much better than others I'd shot in color. Original size in frame (no crop). Mewlon 210 D-K @ f/46. Eye piece projection: 7,5 mm (9,66 meters fl). Webcam Spc Philips 900. No filter. AVI 120 s. @ 10 fps. Registax & Photoshop. Thank you and best regards.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100201/NFt01Feb10.jpg>

**Nicolás FONTANILLAS LOPEZ**

(ニコラス・フォンタニヤス・ロペス Sevilla 西班牙)

●.....**Subject: Re: Your Mars Images**  
**Received: Tue 02 Feb 2010 02:39:12 JST**

Dear Masatsugu Minami, Yes you can!, Its an honor to have it posted in your very informative site and with a group of known individuals in helping imaging the red planet. Also thanks to Ethan for the intro to your group, Again many thanks to be part of this fine group.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100121/EMr21Jan10.jpg>

Attachments: These are two of the most recent processed images from the 27th and 31st of January

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100127/EMr27Jan10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100131/EMr31Jan10.jpg>

○.....**Subject: Mars, Dust at NPH (Feb.2nd, 03:16ut)**  
**Received: Thu 04 Feb 2010 02:29:45 JST**

Hi Sir, This is my latest session from the 2nd of February, 03:16ut. Clear Skies my friend.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100202/EMr02Feb10.jpg>

○.....**Subject: Mars 2010, 02/03 02:58ut**  
**Received: Sun 07 Feb 2010 04:59:05 JST**

Hi Masatsugu, My last session before the rain and ash

(volcanic) came in the last three days. Looks good today i hope.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100202/EMr02Feb10.jpg>

○.....**Subject: Mars, January 29th, 05:32ut 2010**  
**Received: Sun 07 Feb 2010 23:39:27 JST**

Hi Masatsugu, Just finished processing this one from January 29th. (Backlog)

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100129/EMr29Jan10.jpg>

**Efrain MORALES RIVERA**

(エフライン・モラレス=リベラ Puerto Rico 波多黎各)

●.....**Subject: Mars - 29th Jan**  
**Received: Tue 02 Feb 2010 06:48:23 JST**

Hi All, Here's Mars from the 29th Jan, 23:16 GMT Seeing was average at best. Details in the image.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100129/DMs29Jan10.jpg>

**David MASON** (51.5°N, 0.73°W UK 英)

●.....**Subject: Mars image 1st february 2010**  
**Received: Tue 02 Feb 2010 22:17:43 JST**

Hello, I submit you this image of mars, taken from Parets del Valles, Barcelona, SPAIN.

Date: February, 1st, 2010; Time: 23:16 UTC; Telescope: C9,25" F30; Camera: DMK 21AF04+Astronomik RGB filters

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100201/ABs01Feb10.jpg>

○.....**Subject: Mars image 2nd february 2010**  
**Received: Wed 03 Feb 2010 20:57:54 JST**

Dear Sirs, I submit you this image of mars: Date: February, 2nd, 2010; Time: 22:31 UTC. Best Regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100202/ABs02Feb10.jpg>

○.....**Subject: Mars image 3th february 2010**  
**Received: Thu 04 Feb 2010 20:35:11 JST**

Dear Sirs, I submit you this image of mars: Date: February, 3rd, 2010; Time: 22:50 and 22:57 UTC Best Regards,

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

○.....**Subject: Mars image 5th february 2010**  
**Received: Sat 06 Feb 2010 09:39:22 JST**

Dear Sirs, submit you this image of mars, taken from Date: February, 5th, 2010; Time: 22:50 and 23:14 UTC Best Regards,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100205/ABs05Feb10.jpg>

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

●.....**Subject: Mars 1 February 2010**  
**Received: Wed 03 Feb 2010 02:40:06 JST**

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100201/ABd01Feb10.jpg>

○.....**Subject: Mars 201/02/06**  
**Received: Mon 08 Feb 2010 05:08:10 JST**

Dear friends, I send you a new Mars's picture. It was done from Lucena de Jalón (Zaragoza) SPAIN. The telescope was a Mewlon 180mm, and two stacked barlows, a Celestron Ultima 2x and the Powermate 2,5x. I don't know how to calculate the focal. With the Phillips TouCamPro. Best regards

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100206/ABd06Feb10.jpg>

**Alberto BERDEJO**

(アルベルト・ベルデホ Lucena de Jalón 西班牙)

●.....**Subject: RES: Your Mars images on 29 Jan**  
**Received: Wed 03 Feb 2010 06:02:46 JST**

Of course, I've already added your email to my Mars list. Find the file attached. Regards

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100129/PCq29Jan10.jpg>

○.....**Subject: Mars Jan 31**  
**Received: Mon 08 Feb 2010 00:33:30 JST**

Hi here is an image from January 31 in fair seeing.

<http://astrourf.com/pcasquinha/mar100131.jpg>

My best regards

**Paulo CASQUINHA** (ハ<sup>ウ</sup>ロ<sup>カ</sup>スキニヤ Portugal 葡)

●.....**Subject: Mars Sketch 2 February 2010**  
**Received: Wed 03 Feb 2010 09:06:32 JST**

Please find attached my latest Mars observation and sketch. This is my first observation since November 21st due to very bad winter weather. Thankfully, the seeing was good. Notes are with the sketch and included below.

20cm SCT f/10 @ 338x, 250x, 500x; Filters: W21, 80A, 23A, and IL; S: 7/10; T: 2/6; CM: 93° - 100°; Ls: 46°; De: 14°; Dia: 14.0"; Alt: 74°

**Notes:** North Polar Cap (NPC) small but prominent with dark collar. Mare Acidalium and Niliacus Lacus dusky on p. limb followed by darker Nilokeras. Xanthe bright on p. limb in IL. Solis Lacus dark on central meridian (CM). Bluish clouds on north limb. No bright areas noted in red light (W23A). Bright morning limb haze (MLH). Thank you,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100202/MRs02Feb10.jpg>

**Michael ROSOLINA** (マイク<sup>ロ</sup>ソ<sup>リ</sup>ナ WV 美)

●.....**Subject: Mars image 2010/02/01 22:46 UT**  
**Received: Wed 03 Feb 2010 04:23:00 JST**

Attachment: Marte\_20100201\_234624\_ST962\_WSL1\_`celesimag.jpg

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100201/JLa01Feb10.jpg>

○.....**Subject: Re: Your place please**  
**Received: Thu 04 Feb 2010 05:10:02 JST**

Hi. Here are the data: Place: Madrid 40.24°N 3.41°; Telescope: Newton 150/750; Barlow 2x + Barlow 3x. Focal: 4500mm; Camera: Philips SPC900NC + IR block Processed with Registax 5 and Gimp. Best regards

**Javier LARREA** (ハビ<sup>エ</sup>ル<sup>ラ</sup>リア Madrid 西班牙)

●.....**Subject: RE: Mars 3 February, NPC Dust**  
**Received: Thu 04 Feb 2010 19:18:35 JST**

Remember what we use to discuss when a dust cloud was present and with strong VC?

○.....**Subject: RE: Mars 3 February, NPC Dust**  
**Received: Fri 05 Feb 2010 05:27:11 JST**

It is something we noticed back decades ago but have forgotten it all now. Just think we observed a rash of strong violet clearing right before or during outbreaks of dust. May be dreaming though; getting older does purple haze over a memory.

**Jeff BEISH** (シ<sup>エ</sup>フ<sup>ビ</sup>エ<sup>シ</sup> Lake Placid FL 美)

●.....**Subject: Three recent Mars images**  
**Received: Thur 04 Feb 2010 21:49 JST**

Dear Masami, I send you three recent Mars images. All data are on the images. Friendly,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100201/SBI01Feb10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100202/SBI02Feb10.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100203/SBI03Feb10.jpg>

**Simone BOLZONI**

(シ<sup>イ</sup>モ<sup>ネ</sup>・ボ<sup>ル</sup>ツ<sup>オ</sup>ニ Busto Arsizio 義)

●.....**Subject: Re: Mars 3 February, NPC Dust**  
**Received: Fri 05 Feb 2010 03:35:41 JST**

Jeff, Don: Interesting. In our most recent Opportunity color pancam images along the horizon at Meridiani Planum, Crater rim mountains are much more visible than they were a couple months ago. Could this be related?

**Tim PARKER** (テイ<sup>モ</sup>シ<sup>イ</sup>・パ<sup>カ</sup>ー NASA 美)

●.....**Subject: Mars February 4, NPC Dust**  
**Received: Fri 05 Feb 2010 05:50:56 JST**

This an image I made last night with my TMB 8" F/9 showing an area similar to the imaged by Don. FYI see attached.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100204/JPh04Feb10.jpg>

**Jim PHILLIPS** (ジ<sup>ム</sup>・フ<sup>イ</sup>ツ<sup>リ</sup>フ<sup>ス</sup> SC 美)

●.....**Subject: Mars 2010/02/02**  
**Received: Fri 05 Feb 2010 08:11 JST**

Mars 2010/02/02. Clouds over Syrtis Major and over Mare Acidalium. Very visible storm over north pole.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100202/LAz02Feb10.jpg>

**Luis Miguel AZORIN ALBERO**

(ル<sup>イ</sup>ス<sup>ミ</sup>ゲ<sup>ル</sup>・ア<sup>ソ</sup>リ<sup>ン</sup>=アル<sup>ヘ</sup>ロ Elda, Alicante 西班牙)

●.....**Subject: Bates image 02/06/2010**  
**Received: Sun 07 Feb 2010 10:52 JST**

Gentlemen: Mars is receding, but still very nicely placed at local midnight. Lots of cloudy weather lately, but very nice the last few days. Seeing is still very marginal. All the best,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/100206/DBt06Feb10.jpg>

**Don BATES** (ト<sup>ン</sup>・ヘ<sup>ー</sup>ツ Houston TX 美)

☆☆☆

We also received the following email:

●.....**Subject: MarsPolarCapsSecularVariaton**  
**Received: Sun 24 Jan 2010 22:44:58 JST**

Dear Doctor Minami, I send you a synthesis of one of my studies on Mars. It is an interpolation of experimental points of SPC planetocentric extension after sun's areocentric longitude Ls, as You can see. The analytical function  $f(Ls)$  used for interpolation is an 'semi' empirical function, not a banal polynomial. I used the data from CMO and web site ALPO JAPAN LATEST. Now for to complete my work on secular variation (SpC and NpC) I need some old profile (N or S) for the intervals between the years: 1910-1920; 1930-1935; 1950-1960. Please can You help me?

Can You get me an contact with your one group's members studying these topics? Thank You

**Giovanni Di Giovanni**

via Alba Fucens, 6

67100 L'Aquila

## ときどき歳時記

(6)◆星、月、太陽◆先達で常盤優(Ts)さんから暈を被った満月の携帯電話のカメラで撮った照片が送られてきた。暈が大きくて全体は入らなかったらしいが、星が暈の中に一つ写っている。衝を迎えた火星であろうと思う。



◆ここいら(つまり福井)では暈に星が入ると破れ傘と言って翌日は雨になると言い伝えられているらしい。尤も全国には破れ傘は日和傘といって晴になるという話もあるらしい。星が入るのは偶然だから、こんな俚語は當てにならないということだろうが、風情のある話ではある。

◆私は月夜は好きである。彗星観測者にはもってのほかであろうが、雲の動きの具合を観るのにも都合がよいし、足羽山で深夜天文臺を出て車まで歩くにも明るいのは宜しい。

◆月の暈で思い出したが私は2003年の沖縄で、火星観測中にMoondogを見たことがある。こちらの方はSundogより珍しいと思うが、私は餘りSundogを見た経験を思い出せない。◆ただ、サム・ホイットビィさんからそういう写真を何度か送られて来ているし、Mk氏も興味がある様である。ホイットビィさんはNaturalistを自認しているし、Mk氏にもそういう趣がある。自然や草木にも興味がある。◆ただ私自身は一寸違うと思う。IWCMOの時ペリエさんから、私は太陽に興味があるのかと訊かれたが、私はノンと應えておいた。勿論観測といえば、黒點観測から入ったし、火星への太陽活動の影響というものには興味があるが、所謂イストではない。

◆今年の火星の衝のとき衝効果を観るためにフラグスタッフにシーハンさん達と行く計画があったが、先ず寒さと大雪で中止になった。そのとき行かなくて良かったというシーハンさんのemailが上のLIEに入っているが、BRASCHさんという



人の撮った Sundogs の写真が添えられていたので、紹

介する。Naturalistにはたまらない感じであろう。

◆この写真に注目したのはMk氏の方だが、序でに彼が昨年撮った写真が添附されてきた。何處にどういう意味があるのか判らないが、空に向けてカメラを向けていることは確かである。



空には星や月や太陽があるが、誠に曰く言いがたいものがまだまだあるのであろう。

◆空にはまだまだ秘密がある。Naturalistを越えて未だまだ響くものがあるだろうと思う。實は深夜というものがあって、そこからいろいろな自然のものが派生するのも知れない。◆最後に常盤優さんの俳句を二三紹介する：◇十三夜鱗のやうな石畳◇星まつり絵文字ひとつのEメール◇心音より生れしオリオン大星雲◇そして、歳時記といえは立春は過ぎたが、冬の秀句：指で書くいのちのいの字冬の蜂 ---優 (Mn)

シー・エム・オー・フクイ

中島 孝 Nj

★前号は1月28日に印刷・丁合し、国内は翌日発送しました。藤沢(Mk氏)、横浜(Tsさん)には31日、宗像(As氏)には2月1日に配達された様です。不一

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

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