

MARS

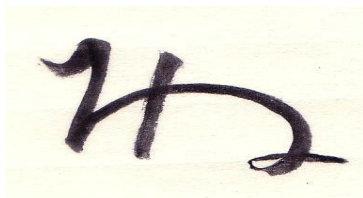
No. **341**
10 January 2008

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Best Wishes

for

2008



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IWCMO in 2009

It is our great pleasure to know the *International Workshop on One Century of Mars Observations* (IWCMO) has been ready for being held on 18, 19 and 20 September in 2009 at the Meudon Observatory, France. It was on 20 September 1909 that E M ANTONIADI met with a perfect seeing at Meudon so as to deny the so-called canal theory, and so this is an international conference on the occasion of the centennial of ANTONIADI's "leopard-skin" drawing of 1909 (Bill SHEEHAN). Furthermore it was in 1909 that the photography by the use of blue filters started at the Lowell Observatory, and hence this period of one hundred years implies a good history of investigating landscapes and clouds on Mars. So it is expected for the observers and historians of Mars to come together. The Secretary General of the IWCMO is Nicolas BIVER (SAF, Meudon), and he has recently written a proposal of IWCMO to ask the auspices of the French Committee of the *International Year of Astronomy 2009*, and it is offered in <http://wwwusr2.obspm.fr/~biver/IWCMO/iwcmo.pdf>

★2009年の九月にムードン天文臺で1909年のアントニアディの観測を記念した百年祭としてIWCMOが開かれます。組織委員会はシーハン氏をはじめ、パーカー氏やマッキム氏、ペリエ氏、それに南などが入っていますが、詳細は未定です。今回はSAFとムードンの諒解が得られたのが幸いでした。総幹事はムードンのビヴェール氏で、IWCA IIIを組織された経験があります。 (Mn)

*CMO Mars Observations during the Second Half of December 2007
from 16 December (003°Ls) to 31 December 2007 (011°Ls)*

2007年十二月後半(16 Dec~31 Dec)の火星面観測

南 政 次・村上 昌己

Masatsugu MINAMI & Masami MURAKAMI

WE here deal with the last fortnight period in 2007; from 16 December to 31 December, during which the planet was closest to the Earth on 18 December near 24h GMT, and was at opposition on 24 December. The season was early spring and proceeded from $\lambda=003^\circ\text{Ls}$ to 011°Ls , the most interesting season of the north polar region. However the tilt of the north pole is not enough to watch the region since ϕ was from 3°N down to 0.0°N . The apparent diameter δ was went down from $15.9''$ to $15.4''$. The phase angle $\iota=08^\circ$ on 16 December and went down to 02° on the opposition day and went up to 06° on 31 December. The ι did not vanish on 24 December since the southern limb had a slight defect illumination. The maximum diameter $\delta_{\text{MAX}}=15.88''$ was larger than that in 1993 where $\delta_{\text{MAX}}=14.95''$, while smaller than that in 1975 where $\delta_{\text{MAX}}=16.55''$.

♂.....今回は2007年の大詰め、16Decから31Decまでを扱うが、この間、最接近を18Decの24hGMT近くに、また衝を24Decに迎えた。季節は $\lambda=003^\circ\text{Ls}\sim 011^\circ\text{Ls}$ で北極地の一番面白いときであるが、中央緯度 ϕ が 3°N から 0.0°N に落ちて見辛くなっている。視直径 δ は $15.9''$ から $15.4''$ に推移した。位相角は $\iota=08^\circ$ から一旦 02° まで落ち、最終は 06° まで昇った。衝24Dec($\lambda=007^\circ\text{Ls}$)には ι はゼロにはならなくて南縁を欠けは掠めたようである。最大視直径 $15.88''$ は1993年の $14.95''$ に勝るが1975年の $16.55''$ に劣る。

♂.....The observations sent to us this time are as follows: A total of 47 observers sent us their observations. 今回は次の様に47名の観測者から報告を受けた。

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

3 Sets of RGB Images (16, 19, 30 December 2007) $f/30$, $45\otimes 23\text{cm}$ SCT with a DMK21AF

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

5 Sets of RGB + 1 Set of IRGB + 1 B + 5 IR Images (17, 22* December 2007)

$f/57\otimes 20\text{cm}$ SCT & 28cm SCT* with a DMK21AF04

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

1 Set of RGB Images (22 December 2007) $f/41\otimes 31\text{cm}$ speculum with a DMK21AF04

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

1 IR Image (21 December 2007) 27cm spec with Vesta Pro

ASADA, Tadashi 浅田 正 (As) 福岡・宗像 Munakata, Fukuoka, Japan

5 Colour + 5 B Images (26 December 2007) 30cm SCT with a Lu075M

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

4 Colour Images (21, 23, 24 December 2007) $f/30$, $35\otimes 25\text{cm}$ speculum with a ToUcam Pro

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

1 Colour Image (23 December 2007) 18cm Dall-Kirkham

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

3 Sets of RGB Images (16, 17, 21 December 2007) $f/50\otimes 28\text{cm}$ SCT with an ATK-2HS

CASQUINHA, Paulo パウル・カスキニャ (PCq) 葡萄牙 República Portuguesa

8 Sets of RGB Images (22/23, 29, 30 December 2007) $f/44\otimes 36\text{cm}$ SCT with a SKYnyx 2-0M

DUPONT, Xavier グザヴィエ・デュボン (XDp) 法國 Saint Roch, France

- 2 Sets of RGB Images (16 December 2007) $f/53\otimes 18\text{cm}$ speculum with a ToUcam Pro I
EDWARDS, Peter **ピーター・エドワーズ (PEd)** 英國 Horsham, UK
- 1 Colour Image (19 December 2007) $f/30\otimes 28\text{cm}$ SCT with a Modified ToUcam B&W
FERNÁNDEZ GÓMEZ, Francisco José **フランシスコ=ホセ・フェルナンデス=ゴメス (FFn)**
 西班牙 Ourense, España
- 3 Colour Images (26, 27 December 2007) 20cm SCT with a Meade LPI
FLANAGAN, William D **ビル・フラナガン (WFl)** 德克薩斯・休斯敦 Houston, TX, USA
- 7 Sets of RGB Images (17, 21, 31 December 2007) $f/36\otimes 36\text{cm}$ SCT with a Lu075M
FUMEGA Ucha, Camilo **カミロ・フメガ (CFm)** 西班牙 Ourense, España
- 2 Colour Images (26, 27 December 2007) $f/30\otimes 20\text{cm}$ speculum with a SPC900NC
GHOMIZADEH, Sadegh **サデグ・ゴミザデ (SGh)** 伊朗・德黑蘭 Tehran, Iran
- 11 Colour Images (20, 22, ~27 December 2007) $f/37\otimes 28\text{cm}$ SCT with a ToUcam Pro III
GÓMEZ, Pepe **ペペ・ゴメス (PGm)** 西班牙・塞維利亞 Santa Bárbara, Sevilla, España
- 2 Colour Images (29, 31 December 2007) 13cm Maksutov-Cassegrain with a ToUcam Pro 830K
GORCZYNSKY, Peter **ピート・ゴルチンスキー (PGc)** 康涅狄格 Oxford, CT, USA
- 6 Sets of RGB + 6 IR Images (18, 25, 26, 30 December 2007)
 $f/42\otimes 18\text{cm}$ Mak-Cass with a DMK21AF04
GRAHAM, David **デイヴィッド・グレアム (DGh)** 英國・北約克夏 Catterick, N Yorkshire, UK
- 2 Drawings (19, 29 December 2007) 250× 23cm Maksutov Cassegrain
HEATH, Alan W **アラン・ヒース (AHt)** 英國・長伊頓 Long Eaton, Nottingham, UK
- 2 Notes (16, 23 December 2007) 180, 280×25cm speculum
HERNANDEZ, Carlos E **カルロス・ヘルナンデス (CHr)** 佛羅里達・邁阿密 Miami, FL, USA
- 1 Set of Colour + 3 Colour Drawings (16, 24*, 28* December 2007)
 136×25cm Dobs, 142×, 178×52cm spec (18cm aperture stop) & 163×~359×23cm Mak-Cass*
HIDALGO-TORTOSA, Emilio **エミリオ・イダルゴ (EHd)** 西班牙 La Carolina, Jaén, España
- 9 Colour + 3 IR Images (23/24*, 30, 31 December 2007)
 $f/50, 90\otimes 13\text{cm}$ TMB 130* & $f/44\otimes 30\text{cm}$ Dall-Kirkham, ToUcam Pro
HIGA, Yasunobu **比嘉 保信 (Hg)** 沖繩・那覇 Naha, Okinawa, Japan
- 4 Colour Images (16, 25 December 2007) 25cm spec with a ToUcam Pro
KIDD, Simon D **サイモン・キッド (SKd)** 英國 Welwyn, Herts, UK
- 1 Colour Image (19 December 2007) 36cm SCT with a DBK21AF04 AS
KOWOLLIK, Silvia **シルヴィア・コヴォリック (SKw)** 德國 Ludwigsburg, Deutschland
- 7 Sets of RGB + 1 Set of IRGB + 7 IR Images (18, 20/21, 21/22, 27, 28 December 2007)
 $f/40\otimes 20\text{cm}$ spec with Videomodul SK 1004-X
KUMAMORI, Teruaki **熊森 照明 (Km)** 堺 Sakai, Osaka, Japan
- 9 Colour Images (16~ 20, 26, 31 December 2007)
 $f/70\otimes 20\text{cm}$ Dall-Kirkham with a DMK21AF04&DFK21AF04
LAWRENCE, Pete **ピート・ローレンス (PLw)** 英國 Selsey, WS, UK
- 2 Sets of RGB Images (18, 25 December 2007) $f/67\otimes 36\text{cm}$ SCT with a SKYnyx2-0M
LEWIS, Martin R **マーチン・ルイス (MLw)** 英國 St. Albans, Hts, UK
- 3 Colour Images (12, 19 December 2007) $f/46\otimes 22\text{cm}$ Dobsonian with a DBK21AF04 AS
MAKSYMOWICZ, Stanislas **スタニスラス・マクシモヴィッチ (SMk)** 法國 Ecqueville, France
- 3 Sets of Drawings (18, 20, 29 December 2007) 205×, 135×15cm F/8 speculum
MELILLO, Frank J **フランク・メリッロ (FMl)** 紐約 Holtsville, NY, USA
- 3 Colour Images (26, 30 December 2007) 25cm SCT with a ToUcam pro II

- MELKA, James T ジム・メルカ (JMI)** 密蘇里・聖路易斯 St. Louis, MO, USA
3 Sets of RGB + 1 Colour Images (14, 19, 24, 26 December 2007)
30cm speculum with a DBK21FA01 AS
- MINAMI, Masatsugu 南 政次 (Mn)** 福井 Fukui, Fukui, Japan
34 Drawings (16, 19, ~21, 24, ~27 December 2007) 300, 400×20cm ED refractor*
*Fukui City Observatory 福井市自然史博物館天文臺
- MORITA, Yukio 森田 行雄 (Mo)** 廿日市 Hatsuka-ichi, Hiroshima, Japan
6 Sets of RGB + 6 IR Images (19, 26 December 2007) 25cm spec with a Lu075M
- MURAKAMI, Masami 村上 昌己 (Mk)** 藤澤 Fujisawa, Kanagawa, Japan
14 Drawings (17, 18, 20, 26, 27 December 2007) 320×20cm F/8 speculum
- NAKAJIMA, Takashi 中島 孝 (Nj)** 福井 Fukui, Fukui, Japan
22 Drawings (19, 20, 24, 25, 27 December 2007) 300, 400×20cm ED refractor*
*Fukui City Observatory 福井市自然史博物館屋上天文臺
- NARITA, Hiroshi 成田 廣 (Nr)** 川崎 Kawasaki, Kanagawa, Japan
19 Drawings (17, 20, 21, 24, ~27 December 2007) 400×20cm Astro ED refractor
- PARKER, Donald C ドン・パーカー (DPk)** 佛羅里達・邁阿密 Miami, FL, USA
8 Sets of RGB + 1 UV[‡] Images (21[‡], 23, 24, 27, 28, 30 December 2007)
f/47@41cm F/6 spec with a SKYnyx 2-0M
- PELLIER, Christophe クリストフ・ペリエ (CPI)** 法國 Seine-St-Denis, France
10 Sets of RGB +7 IR + 3 Violet Images (16, 18, 19, 22/23 December 2007)
f/52@25cm Cassegrain with a SKYnyx 2-0M
- SAN EMETERIO SANTOS, Francisco フランシスコ・サン=エメテリオ=サントス (FEm)**
西班牙 Santander, España
1 Colour Image (28 December 2007) 41cm SCT with a SPC 900
- SÁNCHEZ, Jesús R ヘスス・サンチェス (JSc)** 西班牙・科爾多瓦 Córdoba, España
7 Colour Images (27, 28/29*, 30* December 2007)
26cm Mak-Cass & 25cm SCT* with a DMK21AF04 AS
- SCHULZ, Robert ロベルト・シュルツ (RSz)** 奧地利・維也納 Vienna, Österreich
3 Sets of RGB + 1 IR Images (28 Nov; 17, 27 December 2007) f/31@32cm spec with Lu075M
- SEIP, Stefan ステファン・ザイプ (SSp)** 德國・斯圖加特 Stuttgart, Deutschland
1 Colour Image (19 December 2007) f/45@25cm Maksutov-Cassegrain with a DMK21BF04
- SHARP, Ian イアン・シャープ (ISp)** 英國 Ham, West Sussex, UK
4 Colour Images (19/20, 25 December 2007) f/53@28cm SCT with a SKYnyx 2-0M
- SOLDEVILLA-GONZALEZ, José Antonio**
ホセ=アントニオ・ソルデビーヤ=ゴンサレス (JSd) 西班牙 Canyelles, España
7 B&W Images (23, 25 December 2007) 25cm (F/5) speculum with a RCA plug camera
- TYLER, David デーヴ・タイラー (DTy)** 英國 Flackwell Heath, Buckinghamshire, UK
2 Sets of RGB Images (19, 21 December 2007) f/44@36cm SCT with a SKYnyx 2-0
- VANDEBERGH, Ralf ラルフ・ファンデベルフ (RVb)** 尼德蘭 Nederland
1 Set of RsGB + 1 IR+ 1 UV Images (17/18 December 2007) f/24@25cm spec with ATIK-1HS
- WALKER, Sean ショーン・ウォーカー (SWk)** 新罕布夏 Chester, NH, USA
1 Set of RGB + 4 Colour Images (19, 22, 26, 30 December 2007) 32cm spec with a DMK21AU04
- ZURUTUZA, Ignacio ナチヨ・スルトウサ (NZr)** 西班牙 La Fresneda, Asturias, España
3 Colour Images (16, 26, 30 December) f/35, 53@28cm SCT with a DMK21AF04

♂.....1) **The morning mist at around 50°S:** Since the morning side was more apparent as ι decreased

and was reversed, the morning mist patch at the limb or terminator at around 50°S became more apparent and thicker. Furthermore an eastward trail of the thin mist which lay on the 50°S zone starting from the morning patch was constantly observed every day. For instance the morning mist patch over Hellas and its trail showed the following process: The B images of the moment when Hellas came into the morning sight were given for example at $\omega=239^\circ\text{W}$, 249°W , 255°W by PELLIER (*CPl*) on 18 Dec ($\lambda=005^\circ\text{Ls}$) or at $\omega=247^\circ\text{W}$, 255°W by KOWOLLIK (*SKw*) on 20 Dec ($\lambda=006^\circ\text{Ls}$) (see otherwise MAKSYMOWICZ (*SMk*)'s drawings on 18 Dec and 20 Dec). As Hellas comes more inside, as shown at $\omega=263^\circ\text{W}$ resp $\omega=285^\circ\text{W}$ on the images by *CPl* resp BOSMAN (*RBs*) on 16 Dec ($\lambda=003^\circ\text{Ls}$) etc the morning mist still remains there though becoming thinner while the Sun rises up. The mist is then left at Noachis as shown on the images at $\omega=314^\circ\text{W}$ by BATES (*DBt*) on 21 Dec ($\lambda=006^\circ\text{Ls}$) or at $\omega=316^\circ\text{W}$ by WALKER (*SWk*) on 19 Dec ($\lambda=005^\circ\text{Ls}$) and in particular Don PARKER (*DPk*)'s excellent images on 21 Dec ($\lambda=006^\circ\text{Ls}$) at $\omega=312^\circ\text{W}$ clearly show that the mist extends to the afternoon Hellas from Noachis (*DPk*'s usual B images are taken by the filter which peaks at 480nm, but this set also shows an additional image taken by the use of a UV filter whose peak is at 356nm. This filter may be appropriate if one wishes to discuss the so-called blue clearing). On the images at $\omega=345^\circ\text{W}$ and 350°W on the same day taken by FLANAGAN (*WFl*), Hellas is already near the evening terminator while the mist trail remains westward as if a trace of Hellas remains to the following side. Of course the morning mist patch remains thick. If we go back further we reach the B images at $\omega=015^\circ\text{W}$, 020°W , 024°W made by *WFl* on 17 Dec ($\lambda=004^\circ\text{Ls}$). During this process, we may have images at $\omega=328^\circ\text{W}$, 348°W by DUPONT (*XDp*) or at $\omega=325^\circ\text{W}$ ~ 337°W by HERNANDEZ (*CHr*) on 16 Dec ($\lambda=003^\circ\text{Ls}$), or at $\omega=352^\circ\text{W}$ by ALLEN (*EAl*) on 22 Dec ($\lambda=006^\circ\text{Ls}$). The mist trail which lies across the border of Hellas and Noachis was well taken by *DPk* on 23 Dec ($\lambda=007^\circ\text{Ls}$) at $\omega=302^\circ\text{W}$ as well as on 24 Dec ($\lambda=007^\circ\text{Ls}$) at $\omega=296^\circ\text{W}$. His images on 27 Dec ($\lambda=009^\circ\text{Ls}$) at $\omega=261^\circ\text{W}$, and on 28 Dec ($\lambda=009^\circ\text{Ls}$) at $\omega=245^\circ\text{W}$, 251°W well prove from what portion of Hellas the thick morning condensate is produced. Refer also to the images by *DBt* on 23 Dec at $\omega=310^\circ\text{W}$ and on 24 Dec at $\omega=305^\circ\text{W}$ as well as MELKA (*JMI*)'s image on 24 Dec at $\omega=291^\circ\text{W}$. The mist trail also exists before Hellas being still behind at the rear side as shown by the B images on 22/23 Dec ($\lambda=007^\circ\text{Ls}$) of *CPl* at $\omega=215^\circ\text{W}$ ~ 233°W and of CASQUINHA (*PCq*) at $\omega=237^\circ\text{W}$, 246°W , 250°W , 267°W . This is also shown on the B images on 27 Dec ($\lambda=009^\circ\text{Ls}$) of SCHULZ (*RSz*) at $\omega=144^\circ\text{W}$, $174/176^\circ\text{W}$, on 29 Dec ($\lambda=009^\circ\text{Ls}$) of *PCq* at $\omega=217^\circ\text{W}$, 220°W , 224°W , and on 30 Dec ($\lambda=010^\circ\text{Ls}$) of *PCq* at $\omega=183^\circ\text{W}$, 197°W , of *DPk* at $\omega=225^\circ\text{W}$. The source of the trail is suggested near at Solis L as shown by *WFl* on 17 Dec or by MORITA (*Mo*) on 26 Dec ($\lambda=008^\circ\text{Ls}$) at $\omega=050^\circ\text{W}$ ~ 079°W . On 26 Dec NAKAJIMA (*Nj*) and MINAMI (*Mn*) traced from $\omega=357^\circ\text{W}$ to 060°W , when the mist patch which exists at the SSW terminator was quite thick.

2) De-Condensation: It was pointed out by *CPl* that his images on 22/23 Dec ($\lambda=007^\circ\text{Ls}$) at $\omega=215^\circ\text{W}$ ~ 233°W show a hole area where the condensate vanishes at the eastern part of M Cimmerium. The area looks to show a chocolate tint in RGB and must be at ($\Omega=190^\circ\text{W}$ ~ 207°W , $\Phi=32^\circ\text{S}$ ~ 42°S). At the area the airborne dust also must have been expelled.

3) The shining Olympus Mons: Any Mons shines if $|\iota| \leq 08^\circ$ because of an opposition effect. Since Mars was at opposition on 24 Dec, Olympus Mons shined during the present period. The images produced by AKUTSU (*Ak*) from 22 Dec ($\lambda=006^\circ\text{Ls}$, $\iota=03^\circ$) at $\omega=093^\circ\text{W}$, 105°W , 109°W show quite clearly the shining Olympus Mons rather at the morning side (OM is centred at $\Omega=133^\circ\text{W}$). HIGA (*Hg*) also took the shining one quite near the morning terminator on 25 Dec ($\lambda=008^\circ\text{Ls}$, $\iota=02^\circ$) at $\omega=076^\circ\text{W}$. On the other hand at the evening side SOLDEVILLA (*JSd*) showed at $\omega=183/184^\circ\text{W}$ on 23



Dec ($\lambda=007^\circ\text{Ls}$) that the western flank of Olympus Mons was shining: It was hard to judge how much an evening cloud crept up to the summit because *JSd*'s image is B&W. However *PCq*'s images on 30 Dec ($\lambda=010^\circ\text{Ls}$, $\iota=05^\circ$) at $\omega=183^\circ\text{W}$ & 197°W look well to prove a cloud covering of the summit as well as the shining western flank (the evening cloud of Olympus Mons begins to appear just before the northern spring equinox). The reason why the flank shines must be because it is made of the lava flows. Other work which show more or less the shining Olympus Mons are as listed as follows: on 16 Dec ($\iota=08^\circ$): *Hg* at $\omega=136^\circ\text{W}$, 140°W , 148°W , KUMAMORI (*Km*) at $\omega=149/150^\circ\text{W}$; on 17 Dec ($\iota=07^\circ$) and 18 Dec: *Km* at $\omega=140^\circ\text{W}$ and $\omega=129/131^\circ\text{W}$ respectively; on 19 Dec ($\iota=05^\circ$): *Mo* at $\omega=108^\circ\text{W}$; on 23 Dec ($\iota=02^\circ$): GHOMIZADE (*SGh*) at $\omega=133^\circ\text{W}$ (at the CM), 143°W ; on 25 Dec ($\iota=02^\circ$) after opposition: SHARP (*ISp*) at $\omega=188^\circ\text{W}$ (flank), LAWRENCE (*PLw*) at $\omega=194^\circ\text{W}$, *JSd* at $\omega=198^\circ\text{W}$; on 26 Dec ($\iota=03^\circ$): ZURUTUZA (*NZr*) at $\omega=156^\circ\text{W}$, FERNÁNDEZ (*FFn*) at $\omega=168^\circ\text{W}$, on 27 Dec ($\iota=04^\circ$): *RSz* at $\omega=143^\circ\text{W}\sim 175^\circ\text{W}$, FUMEGA (*CFm*) at $\omega=155^\circ\text{W}$, *SKw* at $\omega=188^\circ\text{W}$; on 28/29 Dec ($\iota=04^\circ$): SÁNCHEZ (*JSc*) at $\omega=177^\circ\text{W}$, 180°W , 185°W , 194°W ; on 30 Dec ($\iota=05^\circ$): in addition to the aforementioned *PCq*, *NZr* at $\omega=105^\circ\text{W}$ (morning), *JSc* at $\omega=121^\circ\text{W}$, 136°W , 156°W , ADELAAR (*JAd*) at $\omega=153^\circ\text{W}$; on 31 Dec ($\iota=06^\circ$): HIDALGO (*Ehd*) at $\omega=170^\circ\text{W}$, 184°W etc. In Japan, the seeing condition remained poor (especially for the visual observation). Olympus Mons was witnessed from around 19 Dec ($\iota=05^\circ$), and *Nj* and *Mn* tried to spot its CM Transit on the opposition day 24 Dec as they did in 1997, but it was impossible to chase it continuously. They tried again on 25 Dec but the seeing was not enough so they abandoned before it came to the CM. Another of us (*Mk*) also gazed it on 17, 18, 20 Dec but no more than saw it vaguely on 20 Dec ($\iota=4^\circ$). Apparently the reflection was weaker because of angles than the brightness of the evening mist at Chryse-Xanthe. **4) Elysium Mons:** A lot of ccd images show the northern part of Elysium to be bright due to the similar opposition effect. In addition to the mountains and hills, some flat places looked shining, but this must be because the plain is also made of the lava flow which is still exposed. The following are the images we consider they isolate Elysium Mons (as well as Hecates Tholus): on 18 Dec ($\iota=06^\circ$): *CPl* at $\omega=238^\circ\text{W}$, 248°W ; *PLw* at $\omega=254^\circ\text{W}$; on 19 Dec ($\iota=05^\circ$): *ISp* at $\omega=243^\circ\text{W}$, *CPl* at $\omega=243^\circ\text{W}$, 251°W , TYLER (*DTy*) at $\omega=249^\circ\text{W}$, EDWARDS (*PEd*) at $\omega=253^\circ\text{W}$, LEWIS (*MLw*) at $\omega=254^\circ\text{W}$, SEIP (*SSp*) at $\omega=262^\circ\text{W}$; on 22/23 Dec ($\iota=03^\circ$): *CPl* at $\omega=215^\circ\text{W}\sim 237^\circ\text{W}$, *PCq* at $\omega=235^\circ\text{W}\sim 261^\circ\text{W}$; on 25 Dec ($\iota=02^\circ$): *PLw* at $\omega=194^\circ\text{W}$; on 29 Dec ($\iota=04^\circ$): *PCq* at $\omega=217^\circ\text{W}\sim 224^\circ\text{W}$; on 26 Dec ($\iota=02^\circ$): GORCZYNSKI (*PGc*) at $\omega=261^\circ\text{W}$; on 30 Dec ($\iota=05^\circ$): *PCq* at $\omega=183^\circ\text{W}$, 197°W , *DPk* at $\omega=225^\circ\text{W}$, *PGc* at $\omega=226^\circ\text{W}$, 240°W ; on 31 Dec ($\iota=06^\circ$): *WFl* at $\omega=229^\circ\text{W}$, 240°W etc. **5) Tharsis Montes:** This time the Torio los clouds were shot by *RSz* on 27 Dec ($\lambda=009^\circ\text{Ls}$, $\iota=04^\circ$) at $\omega=144^\circ\text{W}$ and by *JSc* on 30 Dec ($\lambda=010^\circ\text{Ls}$, $\iota=06^\circ$) at $\omega=136^\circ\text{W}$, 156°W . Different from the preceding fortnight, Olympus Mons began to appear explicitly in B, and so it is hard to tell the ratio of clouds/reflection (if not one uses a polarisation filter). Just however *JSc*'s image of Montes at $\omega=136^\circ\text{W}$ looks to have less G component, and so the ratio of clouds must have been rich at the time. On the *JSc*'s image at $\omega=156^\circ\text{W}$ and *RSz*'s at $\omega=173^\circ\text{W}$, the trio apparently are covered by the evening clouds. *PLw*'s image on 25 Dec ($\lambda=008^\circ\text{Ls}$, $\iota=02^\circ$) at $\omega=194^\circ\text{W}$ clearly shows the moment when the trio came to the limb but the clouds do not look so thick. Otherwise *JSc*'s at 28/29 Dec ($\iota=04^\circ$) at $\omega=177^\circ\text{W}\sim 194^\circ\text{W}$, as well as *PCq* at 30 Dec ($\lambda=010^\circ\text{Ls}$, $\iota=05^\circ$) at $\omega=183^\circ\text{W}$, 197°W show the case where the Montes were quite near the limb. Visually *Mn* observed on 16 Dec ($\lambda=004^\circ\text{Ls}$) at $\omega=138^\circ\text{W}$ that the evening mist was very bright at the limb and it extended faintly to Arsia. *Km* took an image on the day at $\omega=150^\circ\text{W}$ where Arsia Mons looked whitish. On the following 17 Dec ($\lambda=004^\circ\text{Ls}$), *Ak* made a set of images at $\omega=138^\circ\text{W}$ where Arsia looked distinguished while others were dim, so that this must be mostly a cloud. *Mk* watched on the same day at $\omega=110^\circ\text{W}$, 120°W , 139°W while he judged the Tharsis clouds were weaker than the limb side mist. On 18

Dec ($\lambda=004^\circ\text{Ls}$, $\iota=06^\circ$) *Km* shot at $\omega=131^\circ\text{W}$ where Arsia Mons looks like a reflecting object as Olympus Mons. On 19 Dec ($\lambda=005^\circ\text{Ls}$, $\iota=05^\circ$) *Mn* and *Nj* observed at $\omega=151^\circ\text{W}$ and $\omega=156^\circ\text{W}$ respectively and saw that the area of Arsia looks a bit light but quite separated from the evening mist. Olympus Mons vaguely visible. This period was very important one, but unfortunately there were less continuous observations and not well documented. Finally we remark that *JAd*'s set of images on 30 Dec ($\lambda=010^\circ\text{Ls}$) at $\omega=153^\circ\text{W}$ gives us a good impression: The faint and dim description of the reflections and mists is reminiscent of the naked eye's observation. **6) The Areas of Solis L and M Acidalium:** This period these areas faced toward the Japanese observers: *Mk* at Fujisawa observed on 20 Dec ($\lambda=005^\circ\text{Ls}$) at $\omega=081^\circ\text{W}$, 091°W , 101°W , 111°W , 130°W . Solis L, quite dark, went from the CM to the evening side. Already at $\omega=081^\circ\text{W}$ and onward, Tempe was a bit whitish light and it went westward. At Fukui *Nj* and *Mn* chased on 25 Dec ($\lambda=008^\circ\text{Ls}$) from $\omega=030^\circ\text{W}$ to $\omega=135^\circ\text{W}$ continuously. Phasis was sharply seen and the Daedalia dark patch was more conspicuous than expected. Tempe to Alba looked whitish light. The ccd image of Solis L was shot by *Ak* on 22 Dec ($\lambda=004^\circ\text{Ls}$) at $\omega=093^\circ\text{W}$ and by *Hg* on 25 Dec ($\lambda=008^\circ\text{Ls}$) at $\omega=076^\circ\text{W}$. *Hg*'s image also shows Tempe to be roundish light. The area of M Acidalium was watched by *Mk* on 26 Dec ($\lambda=008^\circ\text{Ls}$) at $\omega=022^\circ\text{W}$, 031°W , 041°W , and *Mn* also observed every 40 minutes from $\omega=357^\circ\text{W}$ to 055°W seven times, but quitted because the planet was very high up (in this case we sometimes take a rest, or use a unpleasant diagonal, or quit). On the day *Km* shot at $\omega=046^\circ\text{W}$, 050°W . Ganges was faint to the naked eye. Otherwise we should note that *Mn* observed on 19 Dec ($\lambda=005^\circ\text{Ls}$) at $\omega=095^\circ\text{W}$ that Nilokeras was brownish dark near the evening terminator. **7) The NPH/NPC:** Already the season passed the northern spring equinox, but the npn remained partially. *JAd*'s images on 16 Dec ($\lambda=003^\circ\text{Ls}$) at $\omega=333^\circ\text{W}$ show a thick cloud to the west of the morning M Acidalium. See also *XDp*'s at $\omega=328^\circ\text{W}$, 348°W on the day. *CPl*'s images also show Utopia near the CM with the npc while its morning side shows a thick condensate. *SWk*'s image on 19 Dec ($\lambda=005^\circ\text{Ls}$) at $\omega=316^\circ\text{W}$ also shows a large thin cloud covering the npc, and *EAl*'s set of images on 22 Dec ($\lambda=006^\circ\text{Ls}$) at $\omega=352^\circ\text{W}$ depicts a protrusion of vapour cloud from the area of the npc. *Km*'s images on 31 Dec ($\lambda=011^\circ\text{Ls}$) at $\omega=357/359^\circ\text{W}$ still show a morning arctic cloud and also a stratum of thin mist along the npc at the lower latitudes. *WFl*'s images on 17 Dec ($\lambda=004^\circ\text{Ls}$) at $\omega=015^\circ\text{W}$, 020°W , 024°W detect a thick cloud over the evening side of the npc. This is also suggested on *PGc*'s images on 18 Dec ($\lambda=004^\circ\text{Ls}$) at $\omega=358^\circ\text{W}$. The evening cloud patch over the npc is also visible on *CPl*'s images on 19 Dec ($\lambda=005^\circ\text{Ls}$) at $\omega=243^\circ\text{W}$, 251°W . The mal-distribution of cloud above the npc is also seen from *PCq*'s images on 22/23 Dec ($\lambda=007^\circ\text{Ls}$) at $\omega=235^\circ\text{W}\sim 248^\circ\text{W}$. Another example may be *PGc*'s on 26 Dec ($\lambda=008^\circ\text{Ls}$) at $\omega=261^\circ\text{W}$, 275°W . We also remark that *WFl*'s images on 21 Dec ($\lambda=006^\circ\text{Ls}$) at $\omega=345^\circ\text{W}$, 350°W show an irregular boundary of the npc because of a presence of a series of small cloud patches. Also very impressive are the np region of *DPk*'s images on 24 Dec ($\lambda=007^\circ\text{Ls}$) at $\omega=296^\circ\text{W}$, on 27 Dec ($\lambda=009^\circ\text{Ls}$) at $\omega=261^\circ\text{W}$, on 28 Dec ($\lambda=009^\circ\text{Ls}$) at $\omega=245^\circ\text{W}$, 251°W , as well as on 30 Dec ($\lambda=010^\circ\text{Ls}$) at $\omega=225^\circ\text{W}$. **8) Missed Opportunity:** The central latitude $\phi(=DE)$ has been going down toward the south, and *Ds* has been to the opposite direction, and hence $DE=Ds$ occurred on 20 December at around 6h GMT with $\phi=2.25^\circ\text{N}$ with $\delta=15.9''$. It was near the latitude of Edom Propontrium. Since it was near the opposition time, only a small deviation was expected. The detection of the flare was possible at the US, but no report reached yet. Just on 19 Dec there is an observation by *JMl* at $\omega=340^\circ\text{W}$, and it may suggest that Edom might have been bright.

♂.....1) **50°S位の朝霧**：この時期、位相角が反転する状況にあったため50°S辺りの朝霧が濃くなり、毎日の様にそこから緯度に沿って棚引いているのが目立ったが、例えばヘッラス上の朝霧は次の

ような経過を辿る：ヘッラスが朝、顔を出す頃の影像としては、ペリエ(CPI)氏の18Dec($\lambda=005^\circ\text{Ls}$) $\omega=239^\circ\text{W}$ 、 249°W 、 255°W のB像やコヴォツリク(SKw)さんの20Dec($\lambda=006^\circ\text{Ls}$) $\omega=247^\circ\text{W}$ 、 255°W のB像などにあるが(その他、18Decや20Decのマクシモヴィッツ(SMk)の眼視観測参照)、CPI氏やボスマン(RBs)氏の16Dec($\lambda=003^\circ\text{Ls}$)の $\omega=263^\circ\text{W}$ 、 $\omega=285^\circ\text{W}$ 等を見ると分かるように朝霧は消えながら陽が昇っても残っている。ベーツ(DBt)氏の21Dec($\lambda=006^\circ\text{Ls}$)の $\omega=314^\circ\text{W}$ やウォーカー(SWk)氏の19Dec($\lambda=005^\circ\text{Ls}$)の $\omega=316^\circ\text{W}$ ではノアキスに残る様子が出ているが、特に唐那・派克(DPk)氏の21Dec($\lambda=006^\circ\text{Ls}$)の $\omega=312^\circ\text{W}$ は秀逸で、ノアキスからもう夕方に入ったヘッラス上にも靄って居るのが分かる(DPk氏の通常のB像は480nmにピークを持つが、このセットには更に356nmにピークを持つUVフィルター像が附いている。これが本来の青色光であろう。但し朝縁の霧は強く出ているが、微妙なトレールは少々分からない)。同日のフラナガン(WFl)氏の $\omega=345^\circ\text{W}$ 、 350°W ではヘッラスは夕端だが、B像で見るとヘッラスの航跡には帯状の霧が遺っている様になって居る。勿論朝霧は依然強い。更に遡るとWFl氏の17Dec($\lambda=004^\circ\text{Ls}$) $\omega=015^\circ\text{W}$ 、 020°W 、 024°W のB像に辿り着く。こうした過程の間に16Dec($\lambda=003^\circ\text{Ls}$)のデュポン(XDp)氏の $\omega=328^\circ\text{W}$ 、 348°W 、ヘルナンデス(ChR)氏の $\omega=325^\circ\text{W}\sim 337^\circ\text{W}$ 、更にはアッレン(EAl)氏の22Dec($\lambda=006^\circ\text{Ls}$) $\omega=352^\circ\text{W}$ 等が入ろうかと思う。ノアキスとヘッラスを跨ぐ朝霧はDPk氏の23Dec($\lambda=007^\circ\text{Ls}$) $\omega=302^\circ\text{W}$ 、24Dec($\lambda=007^\circ\text{Ls}$) $\omega=296^\circ\text{W}$ でも如實に描寫されて居り、27Dec($\lambda=009^\circ\text{Ls}$) $\omega=261^\circ\text{W}$ 、28Dec($\lambda=009^\circ\text{Ls}$) $\omega=245^\circ\text{W}$ 、 251°W では朝方のヘッラスのどの部位で凝縮が起こっているかを美事に示している。他にDBt氏の23Dec $\omega=310^\circ\text{W}$ 、24Dec $\omega=305^\circ\text{W}$ やメルカ(JMl)氏の24Dec $\omega=291^\circ\text{W}$ 参照。勿論ヘッラスが西端に出る迄にも帯は残されていて、22/23Dec($\lambda=007^\circ\text{Ls}$)のCPI氏の $\omega=215^\circ\text{W}\sim 233^\circ\text{W}$ やカスキニャ(PCq)氏の $\omega=237^\circ\text{W}$ 、 246°W 、 250°W 、 267°W のB光で示されているし、27Dec($\lambda=009^\circ\text{Ls}$)のシュルツ(RSz)氏の $\omega=144^\circ\text{W}$ 、 $174/176^\circ\text{W}$ 、PCq氏の29Dec($\lambda=009^\circ\text{Ls}$) $\omega=217^\circ\text{W}$ 、 220°W 、 224°W 、或いは30Dec($\lambda=010^\circ\text{Ls}$)のPCq氏の $\omega=183^\circ\text{W}$ 、 197°W 、DPk氏の $\omega=225^\circ\text{W}$ にも示されていると思う。この発信元はWFl氏の17Dec像或い森田(Mo)氏の26Dec($\lambda=008^\circ\text{Ls}$) $\omega=050^\circ\text{W}\sim 079^\circ\text{W}$ に示されるようにソリス・ラクス周辺であろうと思う。中島(Nj)氏とMnは26Dec($\lambda=009^\circ\text{Ls}$)に $\omega=357^\circ\text{W}$ から 060°W まで追ったが、この南南西端に位置する朝霧は實に顕著なものであった。

2)脱霧領域：こうした霧帯状態の中から水蒸気や浮遊黄塵が消えて下が透けている領域がマレ・キムメリウムの東部にあることを22/23Dec($\lambda=007^\circ\text{Ls}$)のCPI氏の $\omega=215^\circ\text{W}\sim 233^\circ\text{W}$ の像でCPI氏が指摘した。位置は($\Omega=190^\circ\text{W}\sim 207^\circ\text{W}$ 、 $\Phi=32^\circ\text{S}\sim 42^\circ\text{S}$)の領域に入ると思われる。RGBではチョコレート色に見える。B光だけでなく、RGBで注意深く処理した結果である。

3)オリュムプス・モンスの輝き：オリュムプス・モンスは $|\iota|\leq 08^\circ$ では輝くが、24Decが黄経衝であったから、この期間は殆どオリュムプス・モンスは輝いて見えたはずである。特に阿久津(Ak)氏の22Dec($\lambda=006^\circ\text{Ls}$ 、 $\iota=03^\circ$) $\omega=093^\circ\text{W}$ 、 105°W 、 109°W では朝方に明瞭に撮れている。極朝方の像としては比嘉(Hg)氏の25Dec($\lambda=008^\circ\text{Ls}$ 、 $\iota=02^\circ$) $\omega=076^\circ\text{W}$ に寫っている。また23Dec($\lambda=007^\circ\text{Ls}$)のソルデビーヤ(JSd)氏の $\omega=183/184^\circ\text{W}$ には夕方のオリュムプス・モンスの西側山腹が輝いているのが分かる。JSd氏は白黒だが、30Dec($\lambda=010^\circ\text{Ls}$ 、 $\iota=05^\circ$)のPCq氏の $\omega=183^\circ\text{W}$ 、 197°W では西側山腹の輝きと共に山頂は夕雲で覆われている様に見える(オリュムプス・モンスは春分前後から徐々に夕雲に覆われる)。その他、この期間オリュムプス・モンスを淡いものまで映し出しているものを列挙すると、16Dec($\iota=08^\circ$)にはHg氏の $\omega=136^\circ\text{W}$ 、 140°W 、 148°W 、熊森(Km)氏の $\omega=149/150^\circ\text{W}$ 、17Dec($\iota=07^\circ$)と18DecにはKm氏のそれぞれ $\omega=140^\circ\text{W}$ と $\omega=129/131^\circ\text{W}$ 、19Dec($\iota=05^\circ$)にはMo氏の $\omega=108^\circ\text{W}$ 、23Dec($\iota=02^\circ$)にはゴミサデ(SGh)氏の $\omega=133^\circ\text{W}$ (南中)、 143°W 、衝後の25Dec($\iota=02^\circ$)にはシャープ(ISp)氏の $\omega=188^\circ\text{W}$ (山腹)、ローレンス(PLw)氏の $\omega=194^\circ\text{W}$ 、JSd氏の $\omega=198^\circ\text{W}$ 、26Dec($\iota=03^\circ$)にはスルトウサ(NZr)氏の $\omega=156^\circ\text{W}$ 、フェルナンデス(FFn)氏の $\omega=168^\circ\text{W}$ 、27Dec($\iota=04^\circ$)にはRSz氏の $\omega=143^\circ\text{W}\sim 175^\circ\text{W}$ 、フメガ(CFm)氏の $\omega=155^\circ\text{W}$ 、SKwさんの $\omega=188^\circ\text{W}$ 、28/29Dec($\iota=04^\circ$)にはサンチェス(JSc)氏の $\omega=177^\circ\text{W}$ 、 180°W 、 185°W 、 194°W 、30Dec($\iota=05^\circ$)には先のPCq氏のほかNZr氏の $\omega=105^\circ\text{W}$ (朝方)、JSc氏の $\omega=121^\circ\text{W}$ 、 136°W 、 156°W 、アデラール(JAd)氏の $\omega=153^\circ\text{W}$ 、31Dec($\iota=06^\circ$)にはイダルゴ(EHd)氏の $\omega=170^\circ\text{W}$ 、 184°W などがある。尚、福井では西高東

低の時は全く駄目なのであるが、この頃はシベリア高気圧が張り出していて、晴れ間があったから、オリュムプス・モンズには注視した。19Dec($t=05^\circ$)の観測ではときどき見えていたが、矢張りシーイングが上々ではなく、衝の24Decには中島(Nj)氏とMnが朝方の観測に切り替え(午前3時過ぎに正中)、1997年の時のように頻繁に交替してCMTをやろうと考えたが、この日も少し透明度が悪く、時偶にしか見えず、連続して通過を認めるには至らなかったのもので、通常観測に戻した。25Decは稍シーイングは向上し、 $\omega=106^\circ\text{W}\sim 125^\circ\text{W}$ 邊りで僅かに捉えられたが、それでも恒常的には見えていないので、正中前に観測を中止した。Mkも17、18、20Decと注視したが、20Dec($t=4^\circ$)で朧に見た以外、オリュムプス・モンズ自體が見えてこなかった。クリュセ-クサンテの夕霧は強く見えるので、反射の方は角度の所爲でそれほど明るさが無いのであろうと考えられる。

4) エリュシウム・モンズ：今回のccd像では多くの畫像でエリュシウムの北側が明るくなっている。これも衝効果であろうと思われる。山や丘だけでなく平地も光っていると思われるが、この邊りは反射體を持つマグマが流れ出して露出しているところであろう。すべてを列挙するわけには行かないがエリュシウム・モンズ(及びヘカテス・トルス)を分離していると考えられるものを挙げる。18Dec($t=06^\circ$)：CPI氏 $\omega=238^\circ\text{W}$ 、 248°W ；PLw氏 $\omega=254^\circ\text{W}$ 、19Dec($t=05^\circ$)：ISp氏 $\omega=243^\circ\text{W}$ ；CPI氏 $\omega=243^\circ\text{W}$ 、 251°W ；タイラー(DTy)氏 $\omega=249^\circ\text{W}$ ；エドワーズ(PEd)氏 $\omega=253^\circ\text{W}$ 、ルイス(MLw)氏 $\omega=254^\circ\text{W}$ ；ザイプ(SSp)氏 $\omega=262^\circ\text{W}$ 、22/23Dec($t=03^\circ$)：CPI氏 $\omega=215^\circ\text{W}\sim 237^\circ\text{W}$ ；PCq氏 $\omega=235^\circ\text{W}\sim 261^\circ\text{W}$ 、25Dec($t=02^\circ$)：PLw氏 $\omega=194^\circ\text{W}$ 、29Dec($t=04^\circ$)：PCq氏 $\omega=217^\circ\text{W}\sim 224^\circ\text{W}$ 、26Dec($t=02^\circ$)：ゴルチンスキ(PGc)氏 $\omega=261^\circ\text{W}$ 、30Dec($t=05^\circ$)：PCq氏 $\omega=183^\circ\text{W}$ 、 197°W ；DPk氏 $\omega=225^\circ\text{W}$ ；PGc氏 $\omega=226^\circ\text{W}$ 、 240°W 、31Dec($t=06^\circ$)：WFI氏 $\omega=229^\circ\text{W}$ 、 240°W など。

5) タルシス三山：今回トリオがB光で綺麗に並んでいるのはRSz氏の27Dec($\lambda=009^\circ\text{Ls}$ 、 $t=04^\circ$) $\omega=144^\circ\text{W}$ とJSc氏の30Dec($\lambda=010^\circ\text{Ls}$ 、 $t=06^\circ$) $\omega=136^\circ\text{W}$ 、 156°W しか見当たらない様である。前二週間とは違ってオリュムプス・モンズもB光で出ているので、雲と反射の割合がよく分からない(偏光フィルターを使わない限り難しい)。但し、JSc氏の $\omega=136^\circ\text{W}$ ではGに殆ど出ないのでこの時点で雲の割合が多いのであろう。JSc氏の $\omega=156^\circ\text{W}$ やRSz氏の $\omega=173^\circ\text{W}$ では明らかにトリオには雲が被っている。25Dec($\lambda=008^\circ\text{Ls}$ 、 $t=02^\circ$)のPLw氏の $\omega=194^\circ\text{W}$ ではタルシスが夕縁に沈むところであるが、雲は然程強くはない。今回、三山の夕縁の像は、他に、JSc氏の28/29Dec($t=04^\circ$) $\omega=177^\circ\text{W}\sim 194^\circ\text{W}$ 、PCq氏の30Dec($\lambda=010^\circ\text{Ls}$ 、 $t=05^\circ$) $\omega=183^\circ\text{W}$ 、 197°W などがある。眼視ではMnが16Dec($\lambda=004^\circ\text{Ls}$) $\omega=138^\circ\text{W}$ で観たところでは夕縁は夕霧でひどく明るくそれがアルシアの方に延びていた。同日のKm氏の $\omega=150^\circ\text{W}$ ではアルシア邊りは白くなっているように思う。翌17Dec($\lambda=004^\circ\text{Ls}$)にはAk氏に $\omega=138^\circ\text{W}$ の像があり、これにはアルシアと他の山も(分離は好くないが)Bで出ていてアルシアが突出するところから多くは雲であると思われる。Mkは同日 $\omega=110^\circ\text{W}$ 、 120°W 、 139°W と追ったが、夕霧は強いもののタルシス三山は強くないと判断した。18Dec($\lambda=004^\circ\text{Ls}$ 、 $t=06^\circ$)にはKm氏の $\omega=131^\circ\text{W}$ の像があり、アルシアはオリュムプス・モンズと同じく反射體のように見える。19Dec($\lambda=005^\circ\text{Ls}$ 、 $t=05^\circ$)にはMnが $\omega=151^\circ\text{W}$ 、Nj氏が $\omega=156^\circ\text{W}$ で観測しているが、アルシア邊りは稍明るいものの夕霧とは分離している、オリュムプス・モンズもボンヤリ見える。重要な時期であったにも拘わらず、残念ながら今回は連続観測が少なく、資料が乏しい。尚、JAd氏の30Dec($\lambda=010^\circ\text{Ls}$) $\omega=153^\circ\text{W}$ の描寫は夕縁からアルシアに到る仄かな霧とオリュムプス・モンズの幽かな反射を描寫して眼視に近いものと思われる。

6) ソリス・ラクス周辺とマレ・アキダリウム周辺：今回日本からはこの領域が見えた。Mkは20Dec($\lambda=005^\circ\text{Ls}$)に $\omega=081^\circ\text{W}$ 、 091°W 、 101°W 、 111°W 、 130°W と追った。ソリス・ラクスは可成りの濃度を示す。この日既に $\omega=081^\circ\text{W}$ でマレ・アキダリウムの西、テンペから西の方に淡く白味を示す帯が見えており、これはそのあとの観測でも残っていた。福井では25Dec($\lambda=008^\circ\text{Ls}$)にNj氏とMnが $\omega=030^\circ\text{W}$ から $\omega=135^\circ\text{W}$ まで廿分刻みで追った。パシスが鋭く見え、ダエダリアの暗斑も意外と濃い。ここでもテンペからアルバに掛けて靄が出ているように見えている。ソリス・ラクスのccd像はAk氏の22Dec($\lambda=004^\circ\text{Ls}$) $\omega=093^\circ\text{W}$ の他25Dec($\lambda=008^\circ\text{Ls}$)にHg氏の $\omega=076^\circ\text{W}$ がある。Hg氏の像にはアルバが浮き出ている。マレ・アキダリウム周辺は26Dec($\lambda=008^\circ\text{Ls}$)にMkが $\omega=022^\circ\text{W}$ 、

031°W、041°W観察したほか、Mnが40分刻みで $\omega=357^\circ\text{W}$ から 055°W まで七回追ったが、火星が高くなりすぎてここで止めた(休憩することもあるが、ディアゴナルを使うこともある。然し、年の所爲か止してしまうこともある)。この日Km氏は $\omega=046^\circ\text{W}$ 、 050°W で撮像している。ガンゲスは肉眼では淡い。尚、Mnの19Dec($\lambda=005^\circ\text{Ls}$) $\omega=095^\circ\text{W}$ の観測では、ニロケラスは濃い褐色系の色を呈して沈んで行った。**7)北極雲/北極冠**：春分は過ぎたが未だ北極雲の一部は遺っている様である。JAd氏の16Dec($\lambda=003^\circ\text{Ls}$) $\omega=333^\circ\text{W}$ にはマレ・アキダリウムの朝方に濃い雲が写っている。XDp氏の同日 $\omega=328^\circ\text{W}$ 、 348°W も参照。CPI氏のウトピア中心の $\omega=263^\circ\text{W}$ にも朝方に濃い雲がある。SWk氏の19Dec($\lambda=005^\circ\text{Ls}$) $\omega=316^\circ\text{W}$ には北極冠を覆う大きな北極雲が見られるし、EAI氏の22Dec($\lambda=006^\circ\text{Ls}$) $\omega=352^\circ\text{W}$ の北極冠からは未だ雲の吹き出しが見える。31Dec($\lambda=011^\circ\text{Ls}$) $\omega=357/359^\circ\text{W}$ のKm氏の画像にもマレ・アキダリウム西方の朝霧は出ており未だ北極冠より低緯度に靄が分布しているのが判る。他にWFI氏の17Dec($\lambda=004^\circ\text{Ls}$) $\omega=015^\circ\text{W}$ 、 020°W 、 024°W の北極冠上には夕方に厚雲が支配している。これは18Dec($\lambda=004^\circ\text{Ls}$)のPGc氏の $\omega=358^\circ\text{W}$ にも窺える。夕方で雲の塊はCPI氏の19Dec($\lambda=005^\circ\text{Ls}$) $\omega=243^\circ\text{W}$ 、 251°W にも見える。他にPCq氏の22/23Dec($\lambda=007^\circ\text{Ls}$) $\omega=235^\circ\text{W} \sim 248^\circ\text{W}$ にも偏りが見られる。26Dec($\lambda=008^\circ\text{Ls}$) $\omega=261^\circ\text{W}$ 、 275°W のPGc氏の北極部もそうかも知れない。尚、WFI氏の21Dec($\lambda=006^\circ\text{Ls}$) $\omega=345^\circ\text{W}$ 、 350°W には北極冠の縁が北極雲の残滓の爲にギザギザが出ている様である。また、DPk氏の24Dec($\lambda=007^\circ\text{Ls}$) $\omega=296^\circ\text{W}$ も然りで、27Dec($\lambda=009^\circ\text{Ls}$) $\omega=261^\circ\text{W}$ 、28Dec($\lambda=009^\circ\text{Ls}$) $\omega=245^\circ\text{W}$ 、 251°W 、30Dec($\lambda=010^\circ\text{Ls}$) $\omega=225^\circ\text{W}$ も北極部の味わいが美事である。**8)失われた機会**：最近 $\phi(=De)$ は南に向きつつあり、Dsは南から北へ向きつつあった。その爲、De=Dsは20 December のホボ 6h GMTに $\phi=2.25^\circ\text{W}$ 邊りで起こっている筈である。エドムは近く、 δ も 15.9° 、衝に近いからずれも少ないと思われる。観測は美國に限られるかと思うが、然し、報告はない。一日違いで、19DecにJMI氏の $\omega=340^\circ\text{W}$ があり、エドムが稍明るいといった状況である。

♂.....**追加報告** : We Further Received the following observations which made before 16 December. HEATH (Aht) and GRAHAM (DGh) are the traditional British observers, but this time they were not blessed with the favourable seeing conditions. The work by SHARP (ISp) and TYLER (DTy) were obtained on the occasion of their Barbados expedition: Some images show an interesting condensate behaviour around Alba Patera (to be reviewed in a coming Note). HIGA (Hg)'s images as well as WARELL (JWr)'s in Nov show well the nph.

GRAHAM, David デヴィッド・グレアム (DGh) 北約克夏 Catterick, North Yorkshire, UK

1 Colour Drawing + 2 Drawings (21 October; 10*, 13* December 2007)
250×~320× 23cm Maksutov Cassegrain & 15cm refractor*

HEATH, Alan W アラン・ヒース (Aht) 長伊頓 Long Eaton, Nottingham, UK

3 Drawings +6 Notes (21, 31* October; 14, 21 November; 3, 10, 13, 13** December 2007)
180, 280×25cm speculum, 200×20cm SCT* and 150×7.5 cm refractor**

HIGA, Yasunobu 比嘉 保信 (Hg) 沖縄・那覇 Naha, Okinawa, Japan

37 Colour Images (2, 11, 13, 14, 23, 25, 27 Oct; 2, 5, 10, 13, 15 Nov; 5, 10, 11, 14 Dec 2007)
25cm spec with a ToUcam Pro

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

7 Sets of RGB + 3 Colour + 2 R Images (7, ~11, 13, 14 December 2007)
f/54@28cm SCT with a SKYnyx 2-0M at Barbados

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

7 Colour Images (4*, 7, ~11, 13** December 2007)
f/50, 53@28cm SCT & f/66@15cm ED refr with a SKYnyx 2-0 & Lu075M** at Barbados

WARELL, Johan ヨハン・ヴァレル (JWr) 烏普薩拉 Uppsala, SWEDEN

7 Sets of RGB Images (8*, 14*, 22*, 30* August; 25 October; 7, 20 November 2007)
f/25@25cm SCT*, f/19, 34@28cm SCT with a ToUcam Pro

♂.....In the next issue we shall review the observations made during a fortnight period from 1 January ($\lambda=011^\circ\text{Ls}$, $\delta=15.4''$) to 15 January 2008 ($\lambda=018^\circ\text{Ls}$, $\delta=14.0''$).

便り

Letters to the Editor

●.....*Date: Mon, 24 Dec 2007 02:38:41 +0000*
Subject: Mars 23 December

Hi All, I have attached some Mars images from 23 December. Numerous clouds seen. Best,

○.....*Date: Fri, 28 Dec 2007 00:15:34 +0000*

Subject: Mars 24 December

Hi All, I have attached some Mars images from 24 December. Best,

○.....*Date: Fri, 28 Dec 2007 23:43:57 +0000*

Subject: Mars 27 December

Hi All, I have attached Mars images from 27 December. A faint Elysium cloud is visible as well as moderate violet clearing. It would be interesting to see if others note the violet clearing visually, using W-47 filters or equivalent. Hyblaeus Extension and the new Aethiopsis streak appears weakened. Best,

○.....*Date: Sun, 30 Dec 2007 05:47:36 +0000*

Subject: Mars 28 December

Hi All, I have attached some Mars images from 28 December. Best,

○.....*Date: Tue, 01 Jan 2008 00:32:59 +0000*

Subject: Mars 30 December

Hi All, I have attached some Mars images from 30 December. Trivium-Cerberus, Tritonis, and the Hyblaeus Extension remain very weak. Delicate cloud streaks present south of Cimmerium and across eastern Cimmerium. No blue Syrtis cloud detected. Happy New Year!

○.....*Date: Tue, 01 Jan 2008 22:34:55 -0500*

Received: Wed 2 Jan 2008 12:34:55 JST

Subject: Donald Parker has sent you an ecard

Dear Masatsugu, Happy Birthday! I hope you have a great 2008 and that we can meet in person in 2009. Many thanks for your friendship and encouragement throughout the years. Best and "good seeing,"

Don PARKER (唐那·派克 Miami FL 美)

●.....*Date: Mon, 24 Dec 2007 03:32:30 +0100*
Subject: Mars from 22.12.07

Hi all, here my mars from 22.12.07. Between cirrus clouds I had short moments with steady seeing and good transparency. Now we have fog, only the Moon shines through it... best wishes

○.....*Date: Sat, 29 Dec 2007 07:12:16 +0100*

Subject: Mars from 27.12.07

Hi all, here my last Mars, the weather is changing and the seeing was bad. But the blue channel still shows a lot of clouds. Best wishes

○.....*Date: Sun, 30 Dec 2007 04:21:03 +0100*

Subject: Saturn: changed view of Ringsystem...

Hi all, here a gif-animation of the changing Ringsystem, 15.1.2007 and 29.12.2007:

○.....*Date: Mon, 31 Dec 2007 19:14:09 +0100*

Subject: Mars from 28.12.07

Hi all, here my Mars from 28.12.07, seeing was poor and I had cirrus clouds, but the blue channel shows some clouds. Are these the W clouds and the orographic cloud

over Olympus Mons? best wishes

Silvia KOWOLLIK

(シルヴィア・コウオリック Ludwigsburg 德)

●.....*Date: Mon, 24 Dec 2007 04:31:37 +0330*
Subject: mars spot

Mr. MINAMI Hello, Today I took 4 images with different times but in southern I found one spot on Mars. These spots are in the 4 images. PLS see you them if it is right PLS inform me.

Sadegh GHOMIZADEH

(サデグ・ゴミザデ Teheran 伊朗)

●.....*Date: Mon, 24 Dec 2007 13:43:35 +0000*
Subject: Mars from Barbados 07-Dec-2007

Hi all, Here are my Barbados Mars images from 7th Dec 2007, similar to the 6th, but differences in the NPH and other cloudy regions. You can see the seeing improve as the night goes on due to the increase in altitude over the session and the fact that Mars was imaged as soon as it cleared the house!

4 images here: <http://tinyurl.com/37wsnx>

The best one with colour channels here:

<http://tinyurl.com/3875dp>

○.....*Date: Thu, 27 Dec 2007 16:57:38 +0000*
Subject: Mars on Christmas Night

Hi all, Here's an image of Mars taken on the night of 25th Dec 2007 from the UK. I've compared it to another one at almost identical CM taken on 2nd Dec from Barbados. I thought the seeing was OK here but the difference is plain to see, and on the 2nd we were not particularly impressed by the seeing! Also interesting to see the slight phase on the 2nd. <http://tinyurl.com/2z4hd7>

○.....*Date: Thu, 27 Dec 2007 19:42:01 +0000*
Subject: Mars from Barbados 08-Dec-2007

Hi all, Here is my best 'Bajan' image from the 8th Dec 2007. <http://tinyurl.com/ytfz2s>

○.....*Date: Fri, 28 Dec 2007 14:47:08 +0000*
Subject: Mars from Barbados 09-Dec-2007

I know what you're thinking... "If I see one more image of Solis Lacus from this bloke I'm going to scream!" Well just for a change, Solis Lacus is moving off on this one (hooray!), and you can see Juventae Fons central in the image, Oxia Palus is there and you can just make out Sinus Meridiani coming on to the limb.

<http://tinyurl.com/2g54v3>

○.....*Date: Sat, 29 Dec 2007 14:00:50 +0000*
Subject: Mars from Barbados 10-Dec-2007

Hi all, Here's Mars on 10th Dec. I'm quite pleased with that one, didn't think I had much. It's amazing, the seeing was so consistent I have several more similar taken on this night, but showing this one because it has Solis Lacus further off! <http://tinyurl.com/yod6vz>

○.....*Date: Sun, 30 Dec 2007 17:11:27 +0000*
Subject: Mars from Barbados 11-Dec-2007

Hi all, Here are my images from 11th Dec 2007. As noted by Dave Tyler there was notable cloud formation taking place in the Tempe and Arcadia areas. This is particularly well shown in the Green and Blue on the following image: <http://tinyurl.com/you9uup>

The 11th was a frustrating night due to wind and rapid-

ly moving clouds. This caused Dave to use the colour SkyNyx as it was almost impossible to capture all 3 colours before 'cloudius interruptus'! So, here are the only two RGB's I managed in the whole night with some extra reds which I captured without the other channels!

<http://tinyurl.com/2cavt9>

○.....Date: **Mon, 31 Dec 2007 18:21:04 +0000**
Subject: **Mars from Barbados - final 2 images!**

Hi all, Well finally, after many dozens of hours, I have finished processing all my Mars images taken in Barbados from 2nd to 14th December 2007.

The night of the 12th was lost completely to torrential rain and the 13th and 14th were almost ruined by wind and showers, but I managed to salvage an RGB on both those nights and they are presented here (I can almost hear you all sigh with relief!):

13th Dec: <http://tinyurl.com/2uo3bn>

14th Dec: <http://tinyurl.com/3x3h33>

A summary of all my images from Barbados is on the following web page:

http://www.astro-sharp.com/Mars_Barbados_2007.asp

Thanks for looking and Happy New Year!

Ian SHARP (イアン・シャープ WS 英)

●.....Date: **Mon, 24 Dec 2007 20:14:31 +0900 (JST)**
Subject: **火星画像 AKM071222**

こんばんわ、22日の火星画像です。これはChrisのC11を借りて撮ったものです。風があり、像がぶれていますが、結構良い画像となりました。今、Chris宅のクリスマスパーティーからメールしています。豚の丸焼き(レチョン バブイ)が食卓に鎮座しています。その画像も添付します。これからパーティーが始まります。

阿久津 富夫(Tomio AKUTSU セブThe Philippines)

●.....Date: **Mon, 24 Dec 2007 21:20:45 -0600**
Subject: **Mars 12/24/2007**

A large moon with Mars hovering nearby created a wonderful naked-eye spectacle. The weather here was cold, with periods of steady air. Best for the Holidays!

Don BATES (ドナルド・ベイツ Houston TX 美)

●.....Date: **Mon, 24 Dec 2007 22:46:06 -0600**
Subject: **RE: RE: Could you tell me?**

Dear Masatsugu, Thanks for the grid. Earlier today I had a chance to compare the Dec 6th image and the HST image using WinJUPOS. I tried to measure the relative rotation between the two images by measuring the longitude difference between five features located on each image using the same date and time. When I average these five measurements I get a rotation difference of 11.3 degrees. I checked the log file of my December 6th image and the middle of the L exposure was at 7:05 UT. From this time I get a CM for the December 6th image of 129.9°W. If this is correct then the CM of the HST image should be 129.9 + 11.3 or 141.2°W which is basically in agreement with the ~140°W number given in the "About this Image" section on the HST website. So I'm in agreement with you that 140°W should be the correct LCM for the HST image. It was just a mere coincidence that I got something very close to 140°W when I used the erroneous 225 number and converted it to West notation to get 135°W. So I certainly would like you to convert the 135°W number I cited previously to 140°W. After looking more carefully at the images, 140°W certainly seems to be more accurate.

Thanks again for pointing me to the HST image. It's been fun to look at it in some detail. Best regards,

○.....Date: **Tue, 25 Dec 2007 21:36:23 -0600**
Subject: **RE: RE: Could you tell me?**

Dear Masatsugu, After looking at all four of the HST images in the composite picture I agree that they are using W Longitude notation. However, as you point out there is some confusion and there are definitely some error or typos in the data listed for each of the four images in the composite. When you follow the links at the bottom of the page to each one of the four images shown in the composite you get conflicting information.

1) **The Top Left Image.**

<http://hubblesite.org/newscenter/archive/releases/solar%20system/mars/2007/45/image/c>

The link lists it as Dec. 1, 2007 and longitude ~50°. This longitude seems to be correct. The grid overlay that Murakami made seems to be in agreement with this data.

Not sure about the date.

2) **The Top Right Image.**

<http://hubblesite.org/newscenter/archive/releases/solar%20system/mars/2007/45/image/d/>

The link gives two sets for this image. At the top of the page it says Dec 3, 2007, longitude ~225°. Under the "About This Image" section it says Dec 7, 2007 longitude ~140°. This last date and longitude seem to be correct as discussed in my previous email.

3) **The Bottom Left Image.**

<http://hubblesite.org/newscenter/archive/releases/solar%20system/mars/2007/45/image/e>

The link also gives two sets of data for this image. At the top of the page it says Dec 3, 2007, longitude ~320°. Under the "About This Image" section it says Dec 3, 2007 longitude ~225°. The 320°W longitude seems to be the more correct one. Not sure about the date.

4) **The Bottom Right Image.**

<http://hubblesite.org/newscenter/archive/releases/solar%20system/mars/2007/45/image/f>

The link again gives two sets of data. At the top of the page it says Dec 7, 2007 long ~140°. Under the "About This Image" section it says Dec 3, 2007 longitude ~320°. Neither of these longitudes are correct, not sure about the dates.

It looks like some of the date and CM information for these images got a little scrambled when they posted them on the website. However, I agree with you that it looks like they are using W Longitudes. Again my assumption of E Longitude for Image 3 was caused by the very unlikely coincidence of converting the erroneous 225° number to 135°W which gave a longitude that was in very close agreement with the image. Best Regards,

○.....Date: **Wed, 2 Jan 2008 08:37:53 -0600**
Subject: **non title**

Dear Masatsugu & Masami, Attached is a set of images from 31 December. The NPH appears thinner & Elysium Mons is bright.

Wishing You a Happy New Year!

Bill FLANAGAN (ビル・フラナガン Houston TX 美)

●.....Date: **Tue, 25 Dec 2007 00:33:11 +0100**
Subject: **Mars, 18th december 2007**

Fair seeing during this night except at the end where it got a bit better.

<http://www.astrosurf.com/pellier/M071218a-CPE>
(visible images)

<http://www.astrosurf.com/pellier/M071218b-CPE>
(IR, violet)

I have slightly changed my processing with a bit more blue in the color composites.

○.....Date: **Wed, 26 Dec 2007 15:12:29 +0100**

Subject: Mars, 19th december 2007

Hi all, still fairly good seeing
<http://www.astrosurf.com/pellier/M071219-CPE>

I have noted the permanent band of white clouds in the southern hemisphere these days, it even looks complete around the whole globe. What's this, the southern jetstream ??

PS WinJupos says that Phobos is in transit above S Gomer for the first serie of images. Who can see it ?

○.....**Date: Wed, 26 Dec 2007 21:40:29 +0100**
Subject: Re: [marsobservers] Mars, 19th december 2007

Hi Stanislas, It looks not to have moved so far. I think it must be involved in some way in the formation of the SPH. Let's follow this.

○.....**Date: Thu, 27 Dec 2007 16:50:49 +0100**
Subject: Mars,

Hi all, last night of the week with a bit of better seeing - the B images came out quite well

http://www.astrosurf.com/pellier/M071222_23a-CPE
 (visible images)

http://www.astrosurf.com/pellier/M071222_23b-CPE
 (IR, SP 470)

The southern cloud band is still there, but I note another one in the N. hemisphere, running from the western limb to Elysium (must not be the same phenomenon though). Another thing to note are two high atmospheric transparency zones above Mare Australe and eastern Mare Cimmerium (arrowed). They appear very dark in blue light and are contrasty chocolates zones in RGB.

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

●.....**Date: Tue, 25 Dec 2007 14:06:43 +0100**
Subject: 25_12_2007 Mars

A X'Mars!

Skywatcher 250mm reflector. RCA plug B&W camera
 Canyelles, Barcelona, Spain

José Antonio SOLDEVILLA GONZALES

(ホセ=アントニオ・ソルテヒャ *nr Barcelona 西*)

●.....**Date: Wed, 26 Dec 2007 08:47:35 -0800**
Subject: Mars, 25 december 2007

Fair to good seeing last night. Lots of clouds throughout the globe.

○.....**Date: Mon, 31 Dec 2007 17:58:13 -0800**
Subject: Mars 12/30

Poor seeing image attached from 12/30. Regards,

○.....**Date: Mon, 31 Dec 2007 19:20:42 -0800**
Subject: Odds of Mars impact now 1 in 25!

<http://www.skyandtelescope.com/news/12905456.html>

Perhaps those of you around the pacific rim may want to be imaging at 10:58 UT, 1/30/08... probably too small to capture, if it does hit.

○.....**Date: Tue, 1 Jan 2008 18:40:41 -0800**
Subject: Last Mars of 07

... But the first for me in 08, in UT at least. Poor to fair seeing. Happy New Year.

○.....**Date: Thu, 3 Jan 2008 14:41:18 -0800**
Subject: Mars 1/1/08

Revisited my data and was able to come up with a better result, one worthy of showing the individual channels. Seeing was poor to fair. The red channel is a long pass red filter, 610 - 1000 nm. Note the cloud around Nix Olympia at the sunset edge. Regards,

○.....**Date: Sun, 6 Jan 2008 04:04:52 -0800**
Subject: Mars globe 2007

Here is a link to an animated globe of Mars using 14 of my best images this apparition, recorded between 10/5

and 12/31. I created this in WinJupos; does anyone know how to "turn off" the Moons in the program?

<http://www.masil-astro-imaging.com/SWI/MarsRot07.gif>

Sean WALKER (シヨーン・ウォーカー *S&T 美*)

●.....**Date: Wed, 26 Dec 2007 20:25:30 +0100**
Subject: Re: [marsobservers] Mars, 19th december 2007

Hi Christophe, to all, Very nice picture in blue and blue violet light. Do you notice some general movement in latitude about this cloud belt in the southern hemisphere? My best regards

Stanislas MAKSYMOWICZ

(スタニスラス・マクシモウイッチ *Ecquevilly 法*)

●.....**Date: Wed, 26 Dec 2007 02:01:52 -0500**
Subject: Mars Observation (December 24, 2007)

Dear Mr. Murakami, Dr. Minami, and CMO members, I made an observation of Mars on December 24, 2007 (04:00 U.T.) using my 9-inch (23-cm) F/13.5 Maksutov-Cassegrain. I used magnifications of 248x and 344x. The Longitude of the Sun (Ls) was 7 degrees (Early Northern Spring/Southern Autumn). The declination of the Earth (De) was 1.5 degrees North. The apparent diameter of Mars was 15.8 arc-seconds. The seeing was estimated as 6-7/10 (Antoniadi (II/V) and transparency 4/10. The central meridian (CM) was 287.0 degrees West which placed the wedge-shaped albedo feature Syrtis Major on it. When the seeing steadied I was able to note mottling within Syrtis Major. The South Polar Region (SPR) was obscured by a very bright to extremely bright (8-9/10) haze. Mare Tyrrhenum (5-6/10), Syrtis Minor (4/10), Ausonia (7/10), and Mare Hadriacum (4/10) were visible towards the south-preceding limb. Hellas appeared as a bright to very bright (7-8/10) oval preceding the CM. Iapygia Viridis appears dark to dusky (3-4/10) south of Syrtis Major. Hesperia (3-4/10) was visible as a diagonal wedge east (following) Hellas. The preceding (western) half of Sinus Sabaeus (3-5/10) appears towards the following limb. Pandora Fretum appears as a dusky (4/10) projection between Sinus Sabaeus and Hesperia. Noachis (7/10) was the bright region south of Pandora Fretum and Deucalionis Regio the bright (7/10) region north of it (and south of Sinus Sabaeus). The bright (7/10) deserts preceding Syrtis Major (on the CM) were Aetheria, Libya, Isidis Regio, and Neith Regio. Aeria and Arabia are the bright (7/10) deserts following Syrtis Major. Utopia, Boreosyrtis, Protonilus, Ismenius Lacus, and Deuteronilus were the dull to dark (3-5/10) albedo features towards the northern limb (from preceding to following limb). The North Polar Cap (NPC, 9-10/10) appears over the northern limb with the presence of very bright (8/0) haze. I welcome any comments on my observation.

Happy New Year!

○.....**Date: Fri, 28 Dec 2007 01:44:10 -0500**
Subject: Mars Observation (December 28, 2007)

Dear Mr. Murakami, Dr. Minami, and CMO members, I made a pair of observations on December 28, 2007 using my 9-inch (23-cm) F/13.5 Maksutov-Cassegrain. I noted a significant amount of detail over the Mare Cimmerium and Elysium regions of Mars. I welcome any comments on my observations. Date (U.T.): December 28, 2007 Time (U.T.): 01:20 (left image, IL) and 01:50 (right image, Wratten 38A) CM: 227.5°W (left image) and 234.9°W (right image) Ls: 009.0° (Early Northern Spring/Southern Autumn) De: 0.7° North, p 1.00, Dia. 15.7" Instrument: 9-inch (23-cm) F/13.5 Maksutov-Cassegrain Magnification: 163x, 273x, and 359x Seeing (1-10): 6-7, Antoniadi (I-V): II Transparency (1-6): 5: Notes: 01:20 U.T. (Left image, CM 227.5°W, IL): The South Polar Region (SPR) appears obscured by a very bright to extremely bright (8-9/10). Mare Australe appears dusky to shaded (4-6/10) north of the haze. Electris, Eridania, and Ausonia appear to be obscured by a bright to very bright (7-8/10) haze. Mare Cimmerium appears dark to dusky (3-4/10) and mottled. The northern border of Mare Cimmerium contains projections (Laestrygonum Sinus, Cyclopus Sinus, and Cerberi Sinus, preceding to following). "Valhalla" was visible north of Mare Cimmerium as a dusky (4/10) band. Hesperia appears as a bright (7/10) diagonal strip between Mare Cimmerium and Mare Tyrrhenum. Mare Tyrrhenum appears dark to shaded (partially obscured by a very bright (8/10) morning limb haze (MLH). Zephyria, Aeolis, Aethiopia, and Aetheria appears bright (7/10). Amazonis and Arcadia appear dusky to shaded (4-6/10) and mottled. A very bright (8/10) orographic cloud is visible over Olympus Mons over the north-preceding (evening) limb. Trivium Charontis, Phlegra, and Azania appear dark to dull (3-5/10). The Propontis Complex (Propontis I and II, Castorius Lacus, and Euxinus Lacus) appears dark to dusky (3-4/10). Elysium appears

bright with a very bright (8/10) cloud over its north-preceding sector. Panchaia appears bright (7/10) and Lemuria (dusky (4/10). The Hyblaeus Extension appears dark to dull (3-5/10) following Elysium. Syrtis Major appears to be obscured the very bright (8/10) MLH. The North Polar Cap (NPC) appears brilliant (10/10) along the northern limb. 01:50 U.T. (Right image, CM 234.9*W, Wratten 38A (Blue) filter): Mare Cimmerium appears dusky (4/10). The southern limb, preceding (evening) limb, northern limb, and following (morning) limb appear very bright (8/10). A very bright (8/10) orographic cloud appear over Olympus Mons over the preceding limb. A very bright (8/10) cloud appears over Elysium. The best of luck in your own observations of Mars. Regards,

Carlos HERNANDEZ (カルロス・ヘルナンデス FL 美)

●.....Date: Thu, 27 Dec 2007 09:06:15 +0900

Subject: Re: 朝方の観測

南様：このメール、今朝読みました。昨夜は9時前から撮影を始め、11時過ぎに終わりました。風が強くてもう一つシーイングは良くなかったように思いました。画像処理が終わりましたら、お送りいたします。

○.....Date: Thu, 27 Dec 2007 18:05:31 +0900

Subject: 『火星通信』#339 拝受

南様：本日午後、『火星通信』#339 拝受いたしました。ありがとうございます。

○.....Date: Fri, 28 Dec 2007 14:33:48 +0900

Subject: 12月26日の画像

12月26日の画像をお送りします。あまり良くありませんでした。

○.....Date: Mon, 31 Dec 2007 14:00:25 +0900

Subject: CMO #340 拝受

本日お昼過ぎ、CMO#340 が届きました。いつもありがとうございます。

今年の大晦日は夕方からテニスをして年越しの予定です。どうぞ良いお年を。

浅田 正 (Tadashi ASADA 宗像 Fukuoka)

●.....Date: Thu, 27 Dec 2007 17:14:54 -0000

Subject: Proms 3rd Dec Barbados

Hi Guys, Here is a few images captured on the 3rd, and the flare object also imaged on the 2nd, which is actually 0977, and not the beginning of 0978 as I had written. 0978 was in full battle dress as it came over the edge on the 6th. Best wishes

○.....Date: Thu, 27 Dec 2007 17:38:46 -0000

Subject: Solar images 4th Dec Barb'

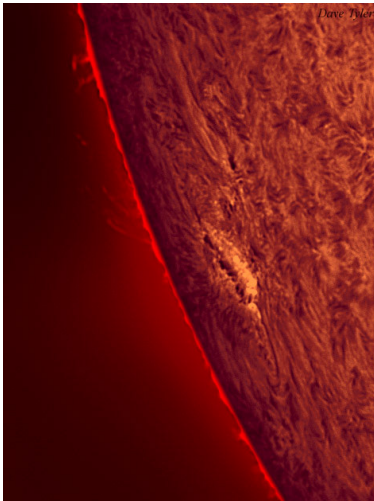
Hi Guys, Here are a few images from the 4th. The 0977 spot group is on 216 inch efl in green off a herschel wedge 6" Vixen at full aperture. In H α it was somewhat more spectacular. The proms were taken in nice seeing, just after 11 am when the sun was trying to fry me!

○.....Date: Fri, 28 Dec 2007 00:34:52 -0000

Subject: Solar images 6th Dec Barb'

Hi Guys, Here some images from the 6th, in H α and white light and H α . The appearance of 0978 on the 6th was exciting, after being in the doldrums for quite a while. I was also lucky to catch 0979 a few days later.

1. The white light image was off a home-made wedge, 6 inch f9 vixen @ f18, with green baader continuum, and added ir block filter.



2. 1943ut is with H α Daystar ATM . The 6inch vixen

stopped to 4.5 at f24. and Lu075 ccd

○.....Date: Fri, 28 Dec 2007 00:48:43 -0000

Subject: solar images 6dec pt 2

Hi Guys, ha ha ha that last one escaped before I finished it, I clicked send instead of file !!!, That's what you get for trying to finish mails when falling asleep at the computer ! The ha images were all with the Daystar, of proms or the 0978 spot group. The larger scale H α image of 0978 was full 6inch aperture at f36. Timings are in file names. Best wishes

○.....Date: Fri, 28 Dec 2007 18:54:52 -0000

Subject: Mars 7-8-9-10th DEC

Hi guys, Here are a few images from early Dec. The change in the clouds from day to day, around the North Pole being an interesting feature. I guess your pretty well up on Solis lacus by now, I didn't realise until recently, that the "Grand Canyon" of Mars was on the lower edge of the area. Having just come back from imaging in Barbados, I have another chance of imaging this region from the UK. Best wishes

○.....Date: Fri, 28 Dec 2007 21:37:40 -0000

Subject: Solar images from 7th Dec

Hi Guys, Here some H α and white light shots of 0978 from the 7th Dec. The "blue wing" H α image was taken before the filter came "on band". It is temperature stabilised and had not reached the correct working temperature. It displays the H α "clouds a little differently, at, as I understand, a lower level. I have added a full frame MIDI image from the SOHO website, this shows the scale and location of the spots. Sometimes the seeing was so good. The screen image looked like a processed image. Quite spectacular.

Not to forget the shade temp was 85F, and my head is sharing a cardboard box with a laptop, and covered with a beach towel! Best wishes

○.....Date: Sat, 29 Dec 2007 18:37:10 -0000

Subject: Solar images 8th Dec

Hi Guys, Here are some solar images from the 8th Dec. These include the short lived 0979 spot; there were some weak proms on the limb as it approached it, which was nice. There is a white light and H α image to compare. Note how the faculae, in the white light image, matches the shape of the "brightenings" in the "clouds", on the H α image.

The 0978 images are also an H α and white light pair. The white light image looks quite innocent, until you see the turmoil created in the H α image !

Faculae are less easily seen in white light as you approach the disc centre, but CaK still shows them well, I dont have one so I can't bring that to you. Best wishes

○.....Date: Sat, 29 Dec 2007 23:29:23 -0000

Subject: solar images 9-Dec-2007

Hi Guys, Just a couple from the 9th. There was some flaring on 0978, and 0979 was about to go over the top. Unfortunately the weather interrupted the 10-11th and 12th. Best wishes

○.....Date: Sun, 30 Dec 2007 10:18:55 -0000

Subject: Mars 11th Dec

Hi Guys, Here is a pair of images from the 11th Dec, taken in poor seeing, but they highlight the increasing notability of the Tempe and Arcadia areas, where cloud production seemed to have increased. C11, Skynyx 2.0 mono and Lumenera 075 colour. Best wishes

○.....Date: Sun, 30 Dec 2007 12:46:48 -0000

Subject: Mars 13 Dec last Mars Barbados Image.

Hi Guys, Well this is about it from Mars Barbados for me, Unless I revisit any of the images in the event of any

me, Unless I revisit any of the images in the event of any future discussions.

Many thanks to Ian Sharp for the sky time on the C11 and the EQ6 go to, and for the photo. This image from the 13th was from the colourcam, this would have been used due to limited clear gaps in the clouds for RGB filtered imaging. At least you get all the channels at once, with the colourcams, even though frame count may be limited. More solar stuff to come. Best wishes

○.....**Date: Tue, 1 Jan 2008 18:52:36 -0000**
Subject: spot 0978 montage

Hi Guys, The H α image is a montage of 4 images, covering pretty well all of the H α disruption over spot group 0978, at 1633 on the 13th. Full frame required here. There is also a white light image of the same spot group taken half an hour before, for comparison. Best wishes

○.....**Date: Tue, 1 Jan 2008 22:29:17 -0000**
Subject: Re: spot 0978 montage

Superb images Paulo (CASQUINHA). Thanks sending them. Excellent white light shot too.

We were washed out on the 12 Dec, but I have a prom in that position taken on the 13th, I have only put out 0978 today from the 13th, so the prom is yet to come.

A comprehensive solar set up there, I wonder if you too, had to put your head in a cardboard box?

Judging by the nice sharp granulation you had good seeing even at high power. What was the location of the observatory like, scopes well clear of the ground? High altitude? Near water? Cheers Paulo

○.....**Date: Tue, 1 Jan 2008 23:03:34 -0000**
Subject: Proms from 13 th Dec

Hi Guys, Here is a couple of images of a finely detailed prominence, taken an hour and forty mins' apart on the 13th Dec. Best wishes

○.....**Date: Wed, 2 Jan 2008 17:23:19 -0000**
Subject: Sunspot 0978 sequence

Hi Guys, This finishes of the Solar images from Barbados, although I think I have a few unseen proms still in the files. The sequence was interrupted by weather. The Photo shows Ian and I struggling to ensure the safety of the equipment during one of the quite common downpours that would come from nowhere. The 8 foot sun brolly was great, it was used for a wind break too. Oh how we suffered! Best wishes

○.....**Date: Sun, 6 Jan 2008 18:44:26 -0000**
Subject: Mars 4 Dec 6 inch

Hi Guys, Whilst my Vixen 152mm f9 was on the mount from solar imaging, I thought I would, out of interest, give it a try on Mars, before changing scopes over to the C11.

○.....**Date: Mon, 7 Jan 2008 10:33:50 -0000**
Subject: 0980 in H α

Hi Guys, This is the "spot group/ area" 0980, imaged yesterday in H α . I could see no actual spots in white light, looking through thin cloud, but there was plenty of H α activity. Altitude 15°. 6 inch vixen stopped to 4.5" for f25 @ 108" efl. 2x powermate with lu 075M and Daystar .6Å H α filter. Bets wishes

○.....**Date: Mon, 7 Jan 2008 21:49:05 -0000**
Subject: Mars 5-Jan 2008

Hi Guys, Here's a Mars image from the 5th, my first of the new year. Nice to see the shadow now on the post opposition side of the globe. Pity I'm destined only to image the Solis Lacus side of Mars. A month of Solis Lacus!!! Shifting to 60° west and back again has its draw backs. At least the home seeing is quite kind to Mars. Best wishes

○.....**Date: Mon, 7 Jan 2008 23:33:52 -0000**
Subject: transit of Tethys

Hi Guys, Thanks to a prompt from Marc Delcroix, I revisited my 10th dec Saturn images, from Barbados. On enhancing the red and green images, they revealed, although faintly, the transit of Tethys. The green exposure was longer at 15 fps, whilst the red imag, taken with a type 1 filter was only 5 mins at 30fps. Hence the difference in blurring of Tethys during that period.

Best Wishes <http://www.david-tyler.com>

Dave TYLER (テヴァイト・タイラー Bkh 英)

●.....**Date: Thu, 27 Dec 2007 17:45:19 +0000**
Subject: Another festive Mars (CM 194.4 2007-12-25)

Hi all, Amongst the mince pies and Christmas cake it would appear some of us ventured outside for a look at the red planet. Here's a capture of Mars taken on Christmas night. Jittery seeing this evening although overall the planet tended to hold together quite well. I'm not entirely sure what the bright circular feature is on the south side of the NPH to the north of the Propontis Complex. I'm pretty sure it's not an artifact as I've seen it appear on a number of amateur images taken around this CM at this date/time. Despite ignoring the Hubble police, the Hubble 2007 opposition images unfortunately show the NPH too far south to reveal this area.

http://www.digitalsky.org.uk/mars/2007-12-25_22-52-Mars_800n.jpg

○.....**Date: Sat, 05 Jan 2008 23:28:46 +0000**
Subject: Interesting activity

Hi all, The skies cleared for a brief spell this afternoon but the Sun was already behind trees from my garden. Not to be outdone I set-up upstairs and pointed my PST out of a bedroom window with all the seeing headaches that entails. I didn't manage to complete a full disk mosaic before the clouds rolled in but I did manage to grab some interesting prominence activity coming around the north-eastern limb. Something to keep an eye on tomorrow if the clouds are kind (and they look like they might be for much of the UK for a change!). Best regards,

○.....**Date: Tue, 08 Jan 2008 02:29:38 +0000**
Subject: Mars 7-Jan 2008, Good seeing

Hi all, I'd actually brought my scope in to dry out earlier today and wasn't going to image Mars this evening. However, the steady stars got the better of me and, after a quick reassembly of the corrector plate and scope cool off (not so quick) I was out imaging again. Just as well really as the seeing was the best it's been for a long time. Some nice steady periods with good details coming through on all channels. I'll post the full annotated version up later when I've reprocessed it with a bit more care. In the mean time, here's a quick process of one of the early RGB sets. Best regards,

○.....**Date: Tue, 08 Jan 2008 16:54:46 +0000**
Subject: Mars - 7th Jan, CM81.6

Hi all, Here's my first data set from last night reprocessed with all the trimmings. A fair bit of detail in the blue channel for a change (for me at least). Best regards,
<http://www.digitalsky.org.uk>

Pete LAWRENCE (ピート・ローレンス Selsey 英)

●.....**Date: Fri, 28 Dec 2007 06:57:49 +0900**
Subject: Mars-2007-12-26-KUMAMORI

久しぶりにまともに晴れました。ただ、シーイングは不安定で、時々大きく崩れていました。年末年始と不安定な天候が続きそうで、撮影チャンスは少なそうです。

○.....**Date: Tue, 1 Jan 2008 09:22:50 +0900**

Subject: Mars-2007-12-31-KUMAMORI

何とか晴れましたが、シーイングは悪いです。ベランダの隙間もほぼ限界になってきました。

○.....Date: Tue, 1 Jan 2008 23:35:53 +0900

Subject: Mars-2008-01-01-KUMAMORI

短い撮影可能時間帯に曇ってきて、1ショットしか撮影できませんでした。北極冠(雲)の一部がかなり明るく見えていました(モニター上で)。

○.....Date: Sun, 6 Jan 2008 10:31:30 +0900

Subject: Mars-2008-01-04&05-KUMAMORI

ついに火星がベランダ屋根にケラレ始めてしまいました。まあ、僅かではありますがフル口径ではなくなってしまいました。火星が南下するまでしかたがありません。

○.....Date: Mon, 7 Jan 2008 16:00:13 +0900

Subject: Mars-2008-01-06-KUMAMORI

まずまずのシーイングでしたが、細かい揺れが激しく、後から見た土星の方が良く見えていました。口径がケラレているせいかもしれません。

よろしくお願いたします。

熊森 照明 (Teruaki KUMAMORI 堺 Osaka)

●.....Date: Fri, 28 Dec 2007 01:39:06 +0100

Subject: Mars 27 November

Image with fair seeing. Combination L(R)GB with W-25 filter.

○.....Date: Thu, 3 Jan 2008 14:29:44 +0100

Subject: Mars 28-29 December 2007

Hello: Images with good seeing. At last!

http://astrosurf.com/astropasion/Mars2007/20071228_jrs.jpg

○.....Date: Sun, 6 Jan 2008 15:31:54 +0100

Subject: Mars 30 Dec. 2007

Images with good to very good seeing. This one I have processed for enhancing the blue features.

http://astrosurf.com/astropasion/Mars2007/20071230_jrs.jpg

○.....Date: Sun, 6 Jan 2008 15:34:37 +0100

Subject: Mars 30 Dec. 2007 image

Images with good to very good seeing. This one I have processed for enhancing the blue features.

Jesús SÁNCHEZ (ハスス・サンチェス Córdoba 西)

●.....Date: Fri, 28 Dec 2007 20:41:56 -0000

Subject: Mars 2007/12/23

Hi, here is a sequence of Mars images from Dec 22 to 23. My best regards and a Happy New Year to you all.

○.....Date: Tue, 1 Jan 2008 19:21:45 -0000

Subject: RE: spot 0978 montage

Solar Prominence 2007/12/12 05:04 UT
TMB 150 + Coronado CM 90 Ha BF15
Langkawi National Observatory-Malaysia
Astrophotography course Team

Hi David grate images as all the previous ones, I also have some that i'd like to share with you all. From December 7 to 15, I was at Langkawi Observatory in Malaysia conducting a course in Hi RES Planetary Imaging with Pedro Ré (a portuguese Deep Sky astrophotographer), here are some of the solar images I've made with the course team. Also attached an image of the solar observatory equipment. My best regards

○.....Date: Tue, 1 Jan 2008 21:36:04 -0000

Subject: Mars 2007/12/29

Mars on December 29

<http://www.astrosurf.com/pcasquinha/mars071229.jpg>

○.....Date: Tue, 1 Jan 2008 23:17:14 -0000

Subject: RE: spot 0978 montage

We also have no luck with the weather, in 7 days we have 2 clear days and 3 clear nights.

About the cardboard box, no, but I have to put my head under a Malaysian men's skirt (don't get me wrong on this) have a look here.

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

that's me focusing, and here is an Ha image under the skirt

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

here the Observatory, the dome you see it's the main dome

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

here is me near the main telescope, a 20" RCOS

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

The observatory stays near a big lake and it's installed on a island, here a partial view of the lake and a view from the top of the building

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

http://www.astrosurf.com/pcasquinha/view_top.jpg

and this is the solar dome

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

The seeing was good and the sun very high in the sky, that's something I'm not used to here at 39°N.

Cheers Dave

○.....Date: Wed, 2 Jan 2008 02:32:31 -0000

Subject: Saturn 2007/12/29

Hi, here is a Saturn image from December 29, an atmospheric disturbance is visible on south hemisphere near the CM, I believe it's the same imaged by Cristian Fattinnanzi on December 22.

<http://www.astrosurf.com/pcasquinha/s071229.jpg>

○.....Date: Fri, 4 Jan 2008 18:44:06 -0000

Subject: Mars 2007/12/30

Hi here is my last Mars image from 2007

<http://www.astrosurf.com/pcasquinha/mars071230.jpg>

○.....Date: Fri, 4 Jan 2008 19:28:18 -0000

Subject: RE: Mars 2007/12/30

Thanks Clay, Probably he would think that we are doing something wrong, so many people imaging Mars and no one can pick up the canals, My best regards

>-----Mensagem original-----

>De: P. Clay Sherrod

>Enviada: sexta-feira, 4 de Janeiro de 2008 19:01

>Assunto: Re: Mars 2007/12/30

>>I am very impressed with this series Paulo...

>The Mars imagers just keep on getting better all the time.

>I wonder what Percival Lowell would think of such results?

>>Clay SHERROD

○.....Date: Fri, 4 Jan 2008 19:44:12 -0000

Subject: ar980

Hi, here are two images of the AR980 with a PST telescope. My best regards

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

●.....Date: Sat, 29 Dec 2007 11:19:12 +0100
Subject: Mars 26-12-2007

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

Ignacio ZURUTUZA (ナツチヨ・スルトウサ Asturias 西)

●.....Date: Sun, 30 Dec 2007 23:57:23 -0000
Subject: Mars from 19th December

Here's Mars from the good seeing of the 19th December. Taken through a home-built 222mm Dobsonian on a home-built equatorial platform and my new mono DMK camera with Astronomiks filters. Other details on the image. Thanks,

○.....Date: Tue, 1 Jan 2008 20:59:06 -0000
Subject: Re: RE:Re: RE:Mars from 19th December

Hi Masatsugu, Thanks for including my image. If I have more of a similar quality or better I will send them to you. Best regards and Happy New Year,

○.....Date: Wed, 2 Jan 2008 00:15:19 -0000
Subject: Re: RE:Re: RE:Mars from 19th December

Hi Masatsugu, Here is the image I sent you the other day from the 19th December reworked as an LR RGB rather than a straight RGB to give significantly better detail. I have also included LR RGBs from early on 12/12/07 and late on 12/12/07 if you are interested in including these in your archives too. Best regards,

○.....Date: Wed, 2 Jan 2008 21:36:49 -0000
Subject: RE:Mars from 19th December

Hi Masatsugu, Many thanks for your comments on Mars colour which I read together with Damian's article on the same with great interest. Also I will copy Masami Murakami as requested if I take any more images.

My LR RGB method is slightly different from the standard method which I agree is most unsatisfactory as the colours are changed dramatically, becoming brighter and much less saturated. My method uses the Red layer in Multiply blending mode rather than Luminance blending mode. This leaves the colour of the underlying RGB unchanged but does accentuate the albedo features significantly. This is shown in the attached image where the base RGB image is the same in all 3 cases. I accept this does not give a natural appearance but does bring out more detail when the seeing is poor without altering the colours significantly. Best regards,

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

●.....Date: Mon, 31 Dec 2007 01:40:26 +0900
Subject: こちらこそありがとうございます

南様、朝日新聞の永井です。こちらこそありがとうございます。朝刊はどうしても削られやすく、夕刊よりも配られる範囲は広いのですが、痛し痒しです。また、何かございましたらぜひお教えください。今後とも何卒、よろしく願います。では、よいお年を。

永井 靖二 (Yasuji NAGAI 大阪 Osaka)

●.....Date: Mon, 31 Dec 2007 20:12:00 +0100
Subject: Marte del 31 de diciembre 2007

Happy New Year.

Emilio HIDALGO TORTOSA

(エミリオ・イダルゴ La Carolina, Jaén 西)

●.....Date: Tue, 01 Jan 2008 12:02:50 +0100
Subject: Re: Odds of Mars impact now 1 in 25!

If an impact will be there, I think we could hope at the best to detect a local albedo brightness and a possible bright patch in the B filter. For sure, not the impact itself.

Sean Walker wrote:.....

Paolo LAZZALOTTI (ハ°オロ・ラツツアロッチ Tuscany義)

●.....Date: Tue, 1 Jan 2008 20:35:59 -0000
Subject: Recent Mars observations

Dear Dr Minami, I have pleasure in attaching scanned copies of recent observations of Mars, made from my site at Catterick Village, near Richmond in the county of North Yorkshire. Unfortunately the current Mars apparition to date has been characterised by generally poor seeing, never yet being better than III on Antoniadi's scale of seeing, so I've yet to enjoy what I would consider to be a satisfactory observation of the red-planet. I currently have two telescopes in use here, namely a 150mm achromatic refractor and a 230mm Maksutov-Cassegrain. The refractor I have owned since 1985, while the Maksutov is a more recent addition, dating from 2000. Both can be assembled on the same mounting, the latter with an additional counter-weight on the declination shaft. I also attach a photo of the refractor at its previous site at Brompton-on-Swale. I must admit the picture was taken some years ago, and what is now left of my hair has gone grey since then!

Wishing you all the very best for 2008,

David GRAHAM (デイヴィッド・グレアム NYs 英)

●.....Date: Tue, 01 Jan 2008 21:36:21 +0100
Subject: Mars observations 28th Nov., 17th Dec. and 27th Dec. 2007

Dear CMO/OAA-team ! Happy New Year !

Here are my few Mars observations taken during the last weeks for publishing in the CMO/OAA 2007/08 Gallery. On the 17th Dec. I collaborated with my friend Jürgen Stöger. best regards

Robert SCHULZ (ロベルト・シュルツ Vienna ウィーン奥)

●.....Date: Wed, 2 Jan 2008 03:21:00 +0900 (JST)
Subject: 26 Dec Mars

なかなか忙しく時間が取れませんが26Decを処理しましたのでお送りします。明日は撮れそうですので、又お送りします。

森田 行雄 (Yukio MORITA 廿日市 Hiroshima)

●.....Date: Wed, 2 Jan 2008 22:50:03 +0100
Subject: Last Mars of 2007

Hi Fellows, First of all the best wishes for 2008 and good health for you and your love ones. Busy times overhere but could enjoy one night of clear skies, seeing was poor (what else!) so took a new approach of processing the avis, there is some nice detail but not easy to show up in the raw stack..pfff this is what makes our hobby so time constrained. The orographic clouds above the Tharsis volcanoes are shown also the bright spot of Olympus Nix and right of it the Amazonis area. The northern polecap is rather small from this side but the blue vapours below the southern counterpart is striking also Electris is clearly to be seen. One thing what is a puzzle is the the small bright line parallel to the left limb in the blue channel, first I thought it was a seeing artefact but it is also shown on the Hubble image...I am not aware that such small feature could be captured in poor seeing or..... best wishes

○.....Date: Tue, 8 Jan 2008 21:24:00 +0100
Subject: Mars 6 januar

Hi Fellows, The first night I tried to escape my town and high buildings to see if seeing outside is better but the routine I had at home seems fledged away like

mounts running bad, legs sinking in the wet mud, dew on the frontplate etc. Murphy galore, even Mars wouldn't come on the screen sigh..... and only just before the clouds arrived I could collect one rgb stream although the blue was already half in the clouds...seeing better? wel no final conclusion yet best wishes

Jan ADELAAR (ヤン・アデルアール Arnhem 荷蘭)

●.....**Date: Wed, 2 Jan 2008 07:49:04 -0600**
Subject: Re: About IWC MO

Dear Masatsugu, I wish you also a Happy New Year and a Happy Birthday, and hope that you will have the happiness of many more.

I sent an e-mail message to Agnese Mandrino, as suggested by Professor Maria Lane, and so far she has not responded. I am going to write a letter which I will send by regular mail, but perhaps it would be easier to contact her through Antonella Testa. I will cc: this message to my office e-mail, and then will send to you from there the e-mail message I sent to Agnese Mandrino and then you can, if you wish, simply forward this to Antonella Testa and see if she can somehow get through to her.

It would be splendid to have her in attendance, as apparently she has done a great deal with Schiaparelli's Mars observations and posted some pages of his notebooks on the Brera web site. It seems to me that Schiaparelli was not quite such a good artist as some others, based on his renderings of detail in these notebook sketches.

I have also been in contact with Luigi Prestinenzza, and I see that he has sent e-mail messages today which I have not yet opened, though by the headings it seems there is an article on Schiaparelli in one of the Italian newspapers, possibly by himself. I am sure he would attend our meeting if he is able, though he seems quite frail and must be over 80 years old now.

I have also been announcing our meeting to others who may be interested. I am hoping that Laurie and Rem will come--as you know, Laurie is both an accomplished artist of the planet and an artist with the camera--she would have a fine time recording the exquisite architecture of the Meudon observatory--the Henry brothers refractor--and the observatories of Paris and Juvisy which I trust we will visit as pilgrims. I have also written to Greg Mort, an artist of great accomplishment who is especially keen about Mars.

Bill SHEEHAN (ウィリアム・シーハン MN 美)

●.....**Date: 3 January 2008** Dear Masatsugu, The apparition of MARS so far has been very disappointing for me with continuous poor seeing.

For what they are worth I enclose some observations but only the most major features have been seen.

In May of 2007 I had my 10 inch reflector stolen from the observatory but a few days later the police raided a property and among the items of stolen goods they recovered was my telescope. It has been returned and is undamaged. Before setting it up again I had the mirror re-aluminized with a Hilux coating and it is now fully operational.

Thank you for the Mars Bulletins and I send my Best Wishes to you all for 2008.

Surely the skies will get better, or will they ?

Most sincerely,

Alan HEATH (アラン・ヒース Long Eaton Nott 英)

●.....**Date: Fri, 04 Jan 2008 17:32:56 +0100**
Subject: Re: FW: invitation to Dr. Agnese Mandrino

Dear Masatsugu, A Happy New Year to you and to everybody! The e-mail address of Agnes Mandrino is correct; of course I'll tell her about the message.

Best regards

PS: Back to office next week I'll send you some more details on Schiaparelli's observations as agreed

Masatsugu MINAMI wrote:

>Dear Antonella,

>A Happy New Year! This is not my further enquiry about the dust problem,

>but just a note to ask a favour of you to forward the following email

>from William Sheehan to Agnes Mandrino. Bill Sheehan wanted to get

>through to Agnes through an email address told by Maria Lane, but

>unfortunately he seemed to have failed up until now. So could you readily

>get in touch with Agnes directly by phone or something like that and

>could you ask her to receive a cordial invitation to the coming Meudon

>Conference planned in September 2009. I am also a member of the

>International Organising Committee of the Conference and so I myself is

>also grateful if you could act as a go-between on this problem. With best wishes,

>>Masatsugu

Antonella TESTA (アントネッラ・テスト Brera 義)

●.....**Date: Fri, 4 Jan 2008 17:53:59 +0000**
Subject: Mars on 28th december

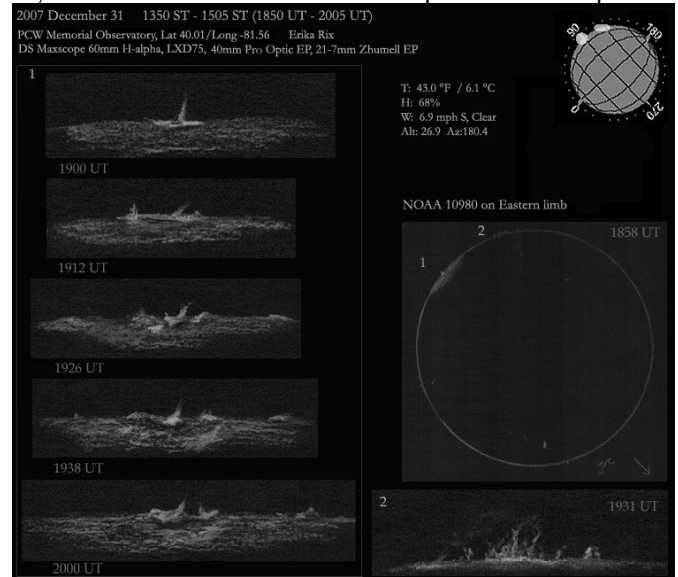
I send you these Mars images. My best wishes for this new year.

Francisco SAN EMETERIO SANTOS

(フランシスコ・サン＝エメテリオ Santander 西)

●.....**Date: Fri, 4 Jan 2008 21:45:01 -0500**
Subject: New year's Eve Eastern limb Solar

Hi everyone. I finally got around to scanning my solar sketches from New Year's Eve. The eastern limb put on a bit of a show that day. One file is a collage. The other is my sketch animation of the eastern prominence sequence.



○.....**Date: Sat, 5 Jan 2008 02:26:57 -0500**
Subject: Sun 2008 Jan 04

It was a beautiful sight today with the Sun gleaming off the snow. The snow was melting fast as the temperature was slowly rising. Unfortunately, the snow didn't melt fast enough off the observatory roof, so I had to just drop down the upper part of the southern wall and leave the roof completely on, otherwise, I would have had to deal with water dripping on my gear in the observatory. As it turned out, it was a good way to keep the winds at bay today, plus I'm sure kept me warmer in the more enclosed space.

There were four very bright plage areas on the disk in h-alpha. One from NOAA 10981, another large intricate

plage structure for 10980, then a very thin bright one that reached over to 10980 just inside the Eastern limb. The final was toward the West. I could see a dark "spot" being cradled by the plage in 981, and by viewing in white light, there was most definitely a small pore that appeared almost elongated. With all the haze today plus winds during my white light filter session outside of the observatory, it was difficult to tell if this elongation was another very tiny pore just beside the larger one, or if it was just blurred from the conditions outside. In any case, both to the NE and the SW of this dark dot were faint markings resembling contrast of faculae. I couldn't confirm what the markings were with this observation.

In white light, I could see no other evidence of active regions.

Getting back to h-alpha in the observatory, there were six areas of prominence around the limb that I could see. With the haze and poor seeing conditions, I had to wait for moments of clarity and steadiness to get good definition for closer looks. Patience definitely proved to be valuable today.

The prominence to the SE just below the AR980 was very faint and fan-like. To the very southern portion of it, it became brighter. I could almost make out all the connections to each section of it.

Then at the western limb, slightly to the south was a very sharp brighter prominence with several fingers reaching out like flames. I really enjoyed this one.

The show stopper of the session was most definitely the plage with a few dark thin filaments looking as if they were separating the plage in AR980 and onward to the eastern limb.

It's said that a new solar cycle has begun, making it number 24. It looks promising. Has it indeed been confirmed? Best wishes,

Erika RIX (エリカ・リックス Zanesville OH 美)

●.....Date: Sat, 5 Jan 2008 08:06:33 -0500
Subject: Mars_Observation_4_Jan_2008

Hello, Please accept this recent visual observation of Mars with notes:

8" SCT f/10 Magnification: 400x, 500x Filters: W21, 23A, 56, 80A, & IL S: 7/10 T: 5/6 Ls: 12.6° CM: 248°-256° De: -0.6° Ds: 5.2° Alt: 41° Dia: 15.2" Phase: 99% Mag: -1.4

Notes: Cimmerium Mare preceding central meridian (CM) followed by Tyrrhenum Mare. Syrtis Major on following limb. Utopia dark band just south of prominent North Polar Cap (NPC). Bluish haze over South Polar Region (SPR) and morning limb (MLH). North Polar Hood weak. Narrow, bright evening limb haze (ELH).

Have a Happy New Year observing Mars! Thank you,
Michaël ROSOLINA (マイク・ロソリーナ Friars H WV 美)

●.....Date: Sat, 05 Jan 2008 17:59:18 -0800
Subject: Mars 22 December 2007

Hi Masatsugu, Here's Mars on 22 December 2007 in poor seeing. The weather in New Mexico was unstable with high winds and very low temperatures. It was impossible to get any images... On the bright side, I had a relaxing and enjoyable vacation with my family.

Best wishes and happy new year!

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

●.....Date: Sun, 6 Jan 2008 16:35:03 +0100
Subject: Happy New Year 2008 !!!

I would like to wish you all a very Happy New Year with lots of opportunities to observe Mars. Unfortunately the weather has been too foggy in the last few months for me to observe.

Hopefully, the sky will clear up soon! Again, all the best for the New Year !

Gérard TEICHERT (ジエラル・テシエール Hattstatt 法)

●.....Date: Mon, 07 Jan 2008 09:11:55 +1100
Subject: Saturn and Venus - 30th December

Hi all, The last clear skies for me were on the morning of the 30th December 2007, where I captured Saturn and Venus. It's my best image of Saturn this apparition, and for Venus, it was my first light with the new Schuler UV filter (it finally arrived). Definitely a challenge and more practise is needed, but happy with the results so far.

All captured with the 12" newt on EQ6, with DMK21AU04 (first light with the USB version of the DMK, too). Thanks for looking.

Mike SALWAY (マイク・ソルウェイ NSW 澳)

●.....Date: Mon, 7 Jan 2008 22:37:14 +0100
Subject: Mars 2008.01.06

Hello all, After almost one month without imaging, Mars under bad seeing conditions - I saved only the IR image from the rest:

<http://astrosurf.com/delcroix/images/planches/me.php?y=2008&m=01&d=06>

Steady skies,

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

●.....Date: Tue, 8 Jan 2008 01:46:17 +0000
Subject: Re: Mars 5-Jan 2008

Hi All, Here's a couple of Mars images taken either side of Dave's last shot. It's certainly seems to be shrinking fast! Plus one of the comet from the same night. Regards,

○.....Date: Tue, 8 Jan 2008 20:10:29 +0000
Subject: RE:Re: Mars 5-Jan 2008

Hi, My location is Maidenhead in the UK. About 5 miles south of Dave Tyler in Flackwell Heath and Damian Peach in Loudwater. The C14 is in the 9ft dome in my back garden. Regards,

Ian BRUCE (イアン・ブルース Maidenhead UK 英)

●.....Date: Tue, 08 Jan 2008 06:47:43 -0500
Subject: Re: transit of Tethys

Dear David (TYLER), Well done upon imaging Tethys in transit across Saturn. I think this is a first - at least for imaging. During the last apparition I was delighted to have witnessed Iapetus in transit with my 16" Cassegrain, and of course Titan and its shadow are easy objects (the shadow having been seen with less than 3" aperture: I checked this for myself in 1980). This image of yours vindicates some observations published by the BAA Saturn Section back in 1892 as reported in Alexander's classic book where several visual observers with 6" apertures reported transits of Dione and Tethys (and I think even Enceladus and Mimas). These were criticised at the time. In 1950 W.H.Stevenson repeated these criticisms, but he did say he could see Rhea in transit visually with his 20" reflector. However, Paul Doherty and David Gray using large apertures were able to repeat at least some of the earlier sightings during the 1979-80 apparition, and Alan Heath saw Dione (or its shadow - I am writing from work with no reference book) visually in transit in 1966.

It will be very interesting to see what happens during the current cycle of transits which is now underway. Whatever the case they are delicate phenomena and easily overlooked. All the best

Richard McKIM (理查・麥肯 Peterborough 英)

☆☆☆

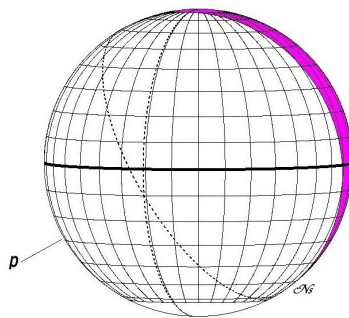
Forthcoming 2007/2008 Mars (17)

Watch the SPR (南極地を狙え)

Masatsugu MINAMI 南 政 次 (Mn)

The movement of the tilt of the south pole this apparition is quite different than that of 15 years ago. In 1992/1993, the tilt was always away from the Earth during the early autumn, while this apparition it is toward us from 1 January ($\lambda=011^\circ\text{Ls}$) to 29 February ($\lambda=039^\circ\text{Ls}$). This implies this season is favoured in the sense we can observe the south circumpolar polar region at the season when the north polar cap remains large. In 1992/1993, the south autumnal equinox visited on 21 Nov 1992 when $\phi=12.9^\circ\text{N}$ and down but the tilt was maximum with $\phi=3.8^\circ\text{N}$ at $\lambda=039^\circ\text{Ls}$. On the contrary this year the tilt is toward to us until $\lambda=039^\circ\text{Ls}$.

We are now appreciating the hypothesis of W. H. PICKERING that the maximal polar caps cannot exist at the same time. Some numerical experiments based on the pure CO_2 atmosphere theory predict a growing of the spc



27 January 2008
($\lambda=023^\circ\text{Ls}$, $\phi=03^\circ\text{S}$, $\iota=24^\circ$)

just before $\lambda=025^\circ\text{Ls}$ (while maximum is retarded until after $\lambda=090^\circ\text{Ls}$, winter solstice), but before that the spr will be obscured by the nph. Unfortunately since D_s gradually goes down to the north (intersection point of the dotted lines in the

Figure), the defect of illumination will affect near the

area of the south pole soon. Nevertheless this is the best chance for us to watch the trend of the south circumpolar region in the southern early autumn. Any image should be accompanied by B ingredient and processed carefully paying attention to the southern terminator.

今回の2007/2008火星は15年前の1992/1993期の火星と大きく違う特長があって、それは10 Dec2007に南の秋分を迎えた後、2008年の元旦から南極がこちらを向くということである。これは二月末日まで続き、この時期、つまり南の秋分後の南極地を眺める絶好の機会になっているということである。15年前の火星は21Nov1992に南の秋分を迎え、3Jan2008に最接近をしたのであるが、この年は一度も南極がこちらを向くことはなかった。1992/1993期の南の秋分のとき ϕ が 12.9°N もあり、 $\lambda=039^\circ\text{Ls}$ 邊りで $\phi=3.8^\circ\text{N}$ になるのが極大であった。これに對し、今回は $\lambda=039^\circ\text{Ls}$ まで ϕ は南を指しているのである。

W.H.ピカリングの極冠交替説を味わう好い機会である。大氣が純粋に炭酸ガスで出来ていると假定すると $\lambda=025^\circ\text{Ls}$ 少し前に南極冠は成長しはじめるが、然し、実際にはダストや水蒸氣の存在に依って遅延が起こるのであろうし、その前に、また南極雲がどの様に発達してくるか興味のあるところである。ただ、圖で分かるように D_s が北に向くため南極そのものは欠けに入ってくるし、今回は視直径の落ちの早いのが難点である。

(圖は西田昭徳(Ns)氏作製)

シー・エム・オー・フクイ

中島 孝 Nj

★前号報告以降カンパがございません。ピンチですのでよろしくお願いたします。不

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

『火星通信』 #341 (10 January 2008) 編集：南 政 次(Mn)、村上昌己(Mk)、中島 孝(Nj)

西田 昭徳(Ns)、常間地 ひとみ(Ts)

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発行 Published by/for : 東亜天文学会 OAA 火星課 Mars Section

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