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MARS

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OAA Mars Section -

CMO Mars Observations during the First Half of January 2008 from 1 January (011°Ls) to 15 January 2008 (018°Ls)

2008年一月前半(1 Jan~15 Jan)の火星面觀測

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THIS time we treat the meteorological observation of Mars during the first fortnight period from 1 Jan to 15 Jan during which the Martian season proceeded from λ=011°Ls to 018°Ls. The apparent diameter δ went down from 15.4 to 13.9 arcsecs. The central latitude ϕ moved from 0°S to 2°S. The phase angle I increased from 7° to 18° with a western defect of illumination. The apparent declination D read a maximal value D=26°59'N from 5 Jan to 9 Jan: It was the northernmost and it will go gradually down southward.

♂······今回は2008年年初1Jan~15Janまでの半月を扱う。この間季節はλ=011°Lsから018°Lsに推移し た。視直徑δは15.4秒角から13.9秒角に落ちた。後半は落ちるのが速い。中央緯度φは0°Sから2°Sと南 を向く。位相角ιは7°から18°に増えた。西側が缺けてきた譯である。尚、視赤緯Dは5Janから9Janの間、D =26°59'Nを示し、最北であった。これからは少しずつ南へ降りて行く。

The observations contributed this time are as follows: A total of 38 observers sent us their observations. 今回は次の様に38名の觀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 (6, 12/13 January 2008) f/30⊗23cm SCT with a DMK21AF

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

1 Set of RGB + 1 IR Images (14 January 2008) f/31⊗36cm SCT with a DMK21AF04

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

1 Set of RGB + 1 IR Images (14 January 2008) f/41⊗31cm speculum with a DMK21AF04

ANDERSON, David デヴィッド・アンダーソン (DAd) 南卡羅萊納 nr Greenwood, SC, USA

1 Set of RGB Images (1 January 2008) f/56 \igo 33cm speculum with a ToUcam 740

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

1 Set of RGB Images (9 January 2008) 36cm SCT with a SKYnyx 2-0

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

1 Set of RGB + 5 Colour Images (1 January 2008) f/50⊗28cm SCT with an ATK-2HS

- BRUCE, Ian イアン・ブルース (IBr) 英國 Maidenhead, UK
 - 2 Colour Images (5 January 2008) f/40\otimes 28cm SCT with a SKYnyx 2-0
- CASQUINHA, Paulo パウロ・カスキニャ (*PCq*) 葡萄牙 República Portuguesa 2 Sets of *RGB* Images (14/15 January 2008) f/44⊗36cm SCT with a SKYnyx 2-0M
- CASTELLÀ, Jaume ファウメ・カステーヤ (JCt) 西班牙 Badalona, España
 - 4 Colour Images (1, 10, 14 January 2008) f/50⊗28cm SCT with a DMK21F04.AS
- **DELCROIX, Marc** マルク・デルクロア (*MDc*) 法國 Tournefeuille, France 1 *IR* Image (6 January 2008) f/58⊗25cm SCT with SKYnyx 2-0M
- DUPONT, Xavier グザヴィエ・デュポン (XDp) 法國 Saint Roch, France 1 Set of RGB Images (7 January 2008) が53⊗18cm speculum with a ToUcam Pro I
- 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
 - 1 Colour Image (12 January 2008) 20cm SCT with a Meade LPI
- **FLANAGAN, William D ビル・フラナガン(WFI)** 徳克薩斯・休斯敦 Houston, TX, USA 5 Sets of *RGB* Images (12, 14 January 2008) f/36⊗36cm SCT with a Lu075M
- GÓMEZ, Pepe ペペ・ゴメス (*PGm*) 西班牙・塞維利亞 Santa Bárbara, Sevilla, España 3 *Colour* Images (8, 10 January 2008) 13cm Maksutov-Cassegrain with a ToUcam Pro 830K
- GORCZYNSKY, Peter ピート・ゴルチンスキー (PGc) 康湼狄格 Oxford, CT, USA 7 Sets of RGB + 6 IR Images (1, 4, 5, 10, 13 January 2008)
 f/42⊗18cm Maksutov-Cassegrain with a DMK21AF04
- **GRAHAM, David デイヴィッド・グレアム (DGh)** 英國·北約克夏Catterick, N Yorkshire, UK 1 Drawing (10 January 2008) 250× 23cm Maksutov Cassegrain
- HIDALGO-TORTOSA, Emilio エミリオ・イダルゴ(EHd) 西班牙La Carolina, Jaén, España 12 Colour + 6 IR Images (7, 9, 10, 12 January 2008) f/44, 45, 55⊗30cm Dall-Kirkham, ToUcam Pro / ICX 424
- KARRER, Michæl ミハエル・カッレル (*MKr*) 奥地利 St Radegund, Österreich 1 Set of *IRGB* Images (8 January 2008) f/29⊗44cm speculum with a SKYnyx 2-1M
- KOWOLLIK, Silvia シルヴィア・コヴォッリク (SKw) 徳國 Ludwigsburg, Deutchland 1 Set of RGB Images (8 January 2008) f/40⊗20cm speculum with a DMK31AF03.AS
- KUMAMORI, Teruaki 熊森 照明 (Km) 堺 Sakai, Osaka, Japan

 4 Colour + 1 IR Images (1, 4~ 6, 9 January 2008)

 f/70⊗20cm Dall-Kirkham with a DMK21AF04&DFK21AF04
- LAWRENCE, Pete ピート・ローレンス (PLw) 英國 Selsey, WS, UK
 - 2 Sets of RGB + 2 Colour Images (7 January 2008) f/67⊗36cm SCT with a SKYnyx2-0M
- MAKSYMOWICZ, Stanislas スタニスラス・マクシモヴィッチ (*SMk*) 法國 Ecquevilly, France 2 Sets of Drawings (9, 12* January 2008) 100×~250× 15cm *F*/8 speculum, 20cm *F*/10 cassegrain*
- MELILLO, Frank J フランク・メリッロ (FMI) 紐約 Holtsville, NY, USA
 - 1 Colour Image (8 January 2008) 25cm SCT with a ToUcam pro II
- MELKA, James T ジム・メルカ (JMI) 密蘇里・聖路易斯 St. Louis, MO, USA 1 Set of RGB + 2 Colour Images (3 January 2008) 30cm speculum with a DBK21FA01.AS
- MINAMI, Masatsugu 南 政 次 (Mn) 福井 Fukui, Fukui, Japan
- MORITA, Yukio 森田 行雄 (Mo) 世日市 Hatsuka-ichi, Hiroshima, Japan 3 Sets of RGB + 4 IR Images (2 January 2008) 25cm speculum with a Lu075M

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

9 Drawings (3, 4, 8 January 2008) 320×20cm F/8 speculum

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

5 Drawings (14 January 2008) 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

29 Drawings (1, 2, 4, 5, 8, 10, 15 January 2008) 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

6 Sets of $RGB + 2 UV^{\ddagger}$ Images (1[‡], 9, 10, 13 January 2008)

f/47⊗41cm F/6 speculum with a SKYnyx 2-0M

ROSOLINA, Michael マイケル・ロゾリーナ (*MRs*) 西維吉尼亞 Friars, WV, USA 2 Drawings (4, 8 January 2008) 338×, 400×, 500×20cm F10 SCT

SÁNCHEZ, Jesús R ヘスス・サンチェス (JSc) 西班牙・科爾多瓦 Córdova, España 2 Colour Images (10/11 January 2008) 25cm SCT with a DMK21AF04.AS

SOLDEVILLA-GONZALEZ, José Antonio ホセ=アントニオ・ソルデビーヤ=ゴンサレス(JSd) 西班牙Canyelles, nr Barcelona, España 2 B&W Images (13 January 2008) 25cm (F/5) speculum with a RCA plug camera

TEICHERT, Gérard ジェラール・タイシェルト (*GTc***)** 法國 Hattstatt, France 1 Drawing (7 January 2008) 330, 350×28cm SCT

TYLER, David デーヴ・タイラー (DTy) 英國 Flackwell Heath, Buckinghamshire, UK 1 Set of *RGB* Images (5 January 2008) f/50⊗36cm SCT with a SKYnyx 2-0

WALKER, Sean ショーン・ウォーカー (*SWk*) 新罕布夏 Chester, NH, USA 3 Sets of *RGB* Images (1, 8, 9 January 2008) 32cm speculum with a DMK21AU04.AS

WARREN, Joel ジョエル・ウォーレン (JWn) 徳克薩斯 Amarillo, TX, USA

3 Sets of RGB Images (13, 14 January 2008) 20cm SCT (⊗ 2× Barlow) with a DBK21AF04.AS

ZURUTUZA, Ignacio ナチョ・スルトゥサ (NZr) 西班牙 La Fresneda, Asturias, España 2 Colour Images (12 January 2008) が3828cm SCT with a DMK21AF04

.....1) Mists at the Southern High Latitudes: A broad trail of cloud along the 50°S zone can be seen on any image having the Blue component, but this time the clouds looked rather scattered. The mist over Hellas and Noachis as observed in the US in the preceding period was checked by KUMAMORI (Km) on 4 Jan (λ =013°Ls) at ω =317°W/318°W, while more typical scattered mist distribution this time was seen at Electris-Eridania as shown on PARKER (*DPk*)'s images on 1 Jan (λ =011°Ls) at ω =197°W, 202°W, 210°W (including Violet images having a peak at 365nm). There was no bright limb or terminator patch. Phaethontis also shows clearly a mist stream as shown on 1 Jan (λ =011°Ls) by BOSMAN (RBs) at ω=099°W~134°W, and by CASTELLÀ (*JCt*) at ω=137°W, or on 9 Jan (λ=015°Ls) by WALKER (*SWk*) at ω =126°W, and by *DPk* at ω =164°W. A mild description of the area of Solis L and mist distribution by FLANAGAN (WFI) on 14 Jan (λ =017°Ls) at ω =094°W, 099°W is interesting, but before that, there was captured a mist patch between Solis L and Phasis as shown by LAWRENCE (PLw)'s beautiful images on 7 Jan (λ =014°Ls) at ω =081°W, 089°W, 091°W and by SÁNCHEZ (JSc)'s on 10/11 Jan (λ =016°Ls) at ω =061°W, 070°W. Especially PLw's images on 7 Jan show an evening limb thick cloud patch at Argyre. 2) Argyre white cloud: However on the KARRER (MKr)'s image on the following 8 Jan (λ =015°Ls) at ω =048°W, Argyre was near the CM but without the cloud patch. On 9 Jan (λ =015°Ls), ARDITTI (DAr) took images at ω =010°W where a morning cloud on Argyre was seen, and it must have moved to the CM without shrinking and on HIDALGO (*EHd*)'s images at ω =053°W, 056°W, 062°W, 073°W on the day, the Argyre

cloud patch is conspicuous before and behind the CM. On 10 Jan (λ =016°Ls), however, it was degraded on JCt's image at ω =034°W and on EHd's at ω =045°W, 049°W, 056°W, and (no observation on 11 Jan) even on 12 Jan (λ =017°Ls) EHd's images at ω =023°W, 029°W, the Argyre cloud was not strong and looked diverted, but on 14 Jan (λ =017°Ls) JCt's image at ω =051°W turned out to show a thick condensate at Argyre. This kind of cloud formation will be influential to the south circumpolar region. 3) The Area around Depressiones Hellesponticae: Since the meteorology by water vapour has revived in the south high latitudes, the area around Hellesponticae Depressiones became a bit darker. The images by Km on 1 Jan (λ =011°Ls) at ω =350°W or MORITA (Mo)'s on 2 Jan (λ =012°Ls) at ω =329°W show that the darkened area spread down slightly to north. As seen from Mo's images, the area is connected with the morning mist patch (maybe at Argyre). One of us (Mk) barely captured this on 3 Jan (λ =012°Ls) at ω =350°W, and another of us (Mn) checked this on 4 Jan (λ =013°Ls) at ω =305°W, 314°W (as well as before on 26 December (λ =009°Ls)). On 4 Jan Km produced images at ω =317°W/318°W. Similarly this phenomenon was shown later on 12 Jan (λ =017°Ls) by ZURUTUZA (NZr) at ω =336°W, 007°W, and by ADELAAR (JAd) at ω =008°W, on 13 Jan (λ =017°Ls) by SOLDEVILLA (JSd) at ω =323°W, 332°W, and on 14/15 Jan (λ =018°Ls) by CASQUINHA (PCq) at ω =019°W, 039°W etc. **4) M Chronium and Tiphys Fr**: Observations at Fukui on 14 Jan (λ =018°Ls) at ω =216°W(Mn), 221°W(Nj), 226°W(Mn) made us aware that M Chronium at the southern end looked darker than expected, and so this area was also affected by the moist atmosphere just like Depr Hellesponticae. After that the planet was very high up, and so we took a rest, but fortunately AKUTSU (Ak) took a set of images at ω =241°W where the area around Tiphys Fr was proved quite dark. By the way, Ak's set on the day was the one first shot by his repaired C-14 (it was unfortunately blown down due to a sudden gale so that its CP was broken before on 19 November 2007). 5) Tharsis Montes and Olympus Mons: The season has come when Olympus Mons is covered by the orographic cloud in the evening but not yet enough; it may be thicker after λ =025°Ls and quite conspicuous after λ =080°Ls. Even then DPk's images as before shows Olympus Mons covered by a thin cloud as well as trio los clouds on Montes on 9 Jan (λ =015°Ls) at ω =164°W. See also JCt's image on 1 Jan (λ =011°Ls) at ω =137°W. Olympus Mons at the limb was also taken by *DPk* on 1 Jan (λ =011°Ls) at ω =197°W, 202°W, 210°W: Since 210 – 90=120°W, the summit of Olympus Mons was inside the disk. GORCZYMSKI (PGc)'s images on the day at ω=198°W as well as SWk's at ω=200°W/202°W also show the limb side Olympus Mons. PGc also took a set of images on 4 Jan (λ =012°Ls) at ω =181°W where Olympus Mons was far inside but weak though the preceding Tharsis was thick at the limb. Olympus Mons at the morning side which shines because of the opposition effect was shot by JCt on 1 Jan (λ =011°Ls, ι =07°) at ω =096°W, and BRUCE (IBr)'s images on 5 Jan (λ =013°Ls, ι =10°) at ω =069°W, 101°W also show the morning Olympus Mons. However *SWk*'s set of excellent images on 8 Jan (λ =014°Ls, ι =12°) at ω =118°W should be said no longer showing it. By the way, Nix Olympica was first witnessed by G V SCHIAPARELLI on 10 November 1879, while Mars was at opposition on 12 November, and hence the one he saw was the shining Olympus Mons due to the opposition effect (not the cloud covered Mons). 6) Elysium: Every set of images taken on 1 Jan (λ =011°Ls, ι = 07°) by ANDERSON (DAd) at ω =192°W, by DPk at ω =197°W, 202°W, 210°W, by PGc at ω =198°W, 216°W, by SWk at ω =200°W shows the northern part of Elysium to be light in B; maybe because of the reflection. 7) Tempe, Alba Patera, and Chryse-Xanthe: Alba Patera behaves in a similar way as Olympus Mons in spring, and so after λ =050°Ls it will be more conspicuous, but at present it is embedded in the cloud belt which starts from Tempe westward. A typical cloud belt which can be seen from the spring equinox was taken this time by PLw on 7 Jan (λ =014°Ls) at ω =081°W, 089°W, 091°W. Similarly WFl took it on 12 Jan (λ =016°Ls) at ω =113°W, 120°W, 125°W where Alba is rather isolated. ALLEN (*EAl*)'s set of images on 14

Jan (λ =017°Ls) at ω =124°W also shows an isolated Alba especially in B. Interesting other images which show the misty matter at the latitudes are: On 1 Jan (λ =011°Ls), JCt's at ω =096°W, 137°W, RBs's at ω=099°W~134°W, on 10 Jan (λ=015°Ls) *DPk*'s at ω=115°W, on 13 Jan (λ=017°Ls) *PGc*'s at ω=093°W, 120°W, WARREN (*JWn*)'s at ω =098°W, *DPk*'s at ω =122°W (further westward from Alba), on 14 Jan (λ =017°Ls) JWn's at ω =089°W, 093°W, and WFl's at ω =094°W, 099°W. The evening mist at Chryse-Xanthe is more or less shown thickly on all images above. **8)** Disturbance to the North of Nilokeras: On 10 Jan (λ =016°Ls) JCt at ω =034°W revealed that between M Acidalium and Tempe, to the north of Nilokeras, a disturbance of dust and water vapour occurred. At this time of the season, the arctic dust disturbances are frequently occur though no longer they don't flow up across the equatorial zone, and so this may belong to this kind of disturbances. On the day EHd also took images at ω =045°W, 049°W, 056°W which all show the disturbance. Commonly a dark segment, maybe Tanais, turned to show a reddish brown colour. However JCs's just after images on 10/11 Jan (λ =016°Ls) at ω =061°W, 070°W show a somewaht different aspect. EHd's images on 12 Jan (λ =017°Ls) at ω =023°W, 029°W don't look to show any development except for the morning mist. PCq's set of images on 14 Jan (λ =017°Ls) at ω =039°W shows a normal aspect. 9) NPC/NPH: The npc can be witnessed on every image made on 1 Jan (λ =011°Ls) but not so vivid because of the low ϕ . On the other hand Ak's set of images on 14 Jan (λ =017°Ls) at ω =241°W clearly shows a cloud protrusion from the npc area to Utopia. As well PCq's images on 14 Jan (λ =018°Ls) at ω =019°W, 039°W also show the white clouds disturbances around M Acidalium which are not independent of the npc. Hence we should say the npc is not free from the nph yet. 10) About Hellas: The observations by Mn on 4 Jan (λ =013°Ls), and on 14 Jan (λ =017°Ls) (ω =274°W onward after the rest) show Hellas was dull without any particular structure though the seeing condition continued to be poor. On the other hand Mk observed a bit light area at the NW corner of Hellas on 4 Jan (λ =013°Ls) at ω =303°W, and also Km's images on the day at ω =317°W/318°W may also suggest a bit non-simple structure inside Hellas. However this was far from the peculiar structure which was observed in 1990/1991. The phenomenon which we here refer is the complicated one stated in http://homepage2.nifty.com/~cmomn2/2005Coming_14.htm This characteristic inside-structure was first shot by DPk on TP emulsions at λ =315°Ls in 1990 on 13 October (or maybe more early from λ =295°Ls, δ =11.6"), and it was confirmed visually from around λ =320°Ls in Japan. This peculiarity with a lot of morning clouds continued until λ =001°Ls (7 Jan 1991, δ =12.7") as far as Mn's records were concerned (DPk's record was up until λ =358°Ls). That is, the present season, the characteristic feature of Hellas have not well shown up perhaps because of the foregoing global dust event. The water vapour migration must so have been abnormal this season. It is therefore quite interesting to observe Hellas as well as Argyre until they are covered by the white frost, but it may be difficult to chase it because the angular diameter will rapidly shrink.

る・・・・・・1)南半球高緯度の量: 50°S邊りに棚引く雲はB光を完備しているどの畫像にも見られるが、雲は寧ろちりぢりになって來ている。前回話題にしたヘッラス-ノアキス方面では熊森(Km)氏の4Jan(λ =013°Ls) ω =317°W/318°Wに両者に跨る雲が出ている。今回の典型は唐那・派克(DPk)氏の1Jan (λ =011°Ls) ω =197°W、202°W、210°Wに見られるエレクトリス-エリダニアのちりぢりの霧状のもので、朝夕に濃い塊がない(365nmにピークを保つV光でも)。パエトンティス邊りでは1Jan(λ =011°Ls)のボスマン(RBs)氏の ω =099°W~134°W、カステーヤ(JCt)氏の ω =137°W像、9Jan(λ =015°Ls)のウォーカー(SWk)氏の ω =126°W、DPk氏の ω =164°W等に綺麗に見られる。ソリス・ラクスの邊りの模様と淡いミストの描寫はフラナガン(WFl)氏の14Jan(λ =017°Ls) ω =094°W、099°Wが優れているが、その前にソリス・ラクスとパシスの間にも一寸した塊が出來、それはローレンス(PLw)氏の7Jan(λ =014°Ls) ω =081°W、089°W、091°Wの綺麗な像やサンチェス(JSc)氏の10/11Jan(λ =016°Ls) ω =061°W、070°Wの像に出ている。特に、PLw

氏の7Janの像には東端のアルギュレに濃い雲が出ている。2)アルギュレ \pm : 然し翌8Jan(λ =015°Ls) ω = 048°Wのカッレル(MKr)氏の像ではアルギュレが中央に來ているにも拘わらず雲は出ていない様であ る。翌9 $Jan(\lambda=015^{\circ}Ls)$ のアルディッチ(DAr)氏の $ω=010^{\circ}W$ では朝縁に濃く、これがそのまま南中したら しく、イダルゴ(EHd)氏の同日ω=053°W、056°W、062°W、073°WではCMを挟んで強い雲塊になって いて壮觀である。然し、10Jan(λ =016°Ls)のJCt氏の ω =034°WやEHd氏の ω =045°W、049°W、056°Wでは 寧ろ退化しており、(11Janは無觀測で)EHd氏の12Jan(λ=017°Ls)ω=023°W、029°Wでもアルギュレ雲は 然程強いとは言えず東西に擴散しているのであるが(ここが問題)、14Jan(λ=017°Ls)ω=051°Wでは再び 集中してアルギュレ雲が強く顕れている。こうした動きは南極地に影響を與えると思う。**3)デプレッ シオネス・ヘッレスポンティカエ邊り:**南半球高緯度で水蒸氣による氣象が復活していることで(通常 ならもっと早くλ=270°Ls以降)、例えばヘッレスポンティカエ・デプレッシオネス邊りに少々の濃化 が起こっているようである。1Jan(λ =011°Ls)のKm氏の ω =350°Wや森田(Mo)氏の2Jan(λ =012°Ls) ω =329°W にはこの邊りが濃く北に張り出して來た様に見える。Mo氏の像に見られる様にアルギュレ起源の朝 雲が東に控えている。Mkは3Jan(λ=012°Ls)ω=350°Wでこれを漸く捉えたが、Mnは4Jan(λ=013°Ls)に ω =305°W、314°W等でこれを捉えている。4JanにはKm氏の ω =317°W/318°Wがある。後半、12Jan(λ =017°Ls) にはスルトゥサ(NZr)氏のω=336°W、007°W、アデラール(JAd)氏のω=008°W、その他ソルデビーヤ(JSd) 氏の13Jan(λ =017°Ls) ω =323°W、332°W、カスキニヤ(CPq)氏の14/15Jan(λ =018°Ls) ω =019°W、039°W等に 見られる。4)マレ・クロニウム、ティフュス・フレトゥム:福井の14Jan(λ =018°Ls) ω =216°W(Mn)、 221°W(Nj)、226°W(Mn)の觀測では、南端のマレ・クロニウムが意外と濃く見えており、矢張りデプ レッシオネス・ヘッレスポンチカエ同様、南極域で水蒸氣による浄化作用が起こっているのではない かと考えたが、この後は高度が高くなり過ぎ、休憩に入った。然し、阿久津(Ak)氏が ω =241 $^{\circ}$ Wで撮像 し、マレ・クロニウムの西端を濃く捉えている。Ak氏のこの像は十一月にC-14の補正板が突風で壊 れたのち修復しての第一號の像である。**5)タルシス-オリュムプス・モンス**:オリュムプス・モンスは 夕方山岳雲に覆われる季節に入っているが、まだλ=025°Ls以降、或いはλ=080°Ls以降の厚い雲とは雲 泥の差である。然し、DPk氏は前回に引き續き、9Jan(λ =015°Ls) ω =164°Wでタルシス三山とオリュムプ ス・モンスに懸かる雲の斑點を冩し出している。またJCt氏の1Jan(λ =011°Ls)ω=137°Wでも見られたい。 オリュムプス·モンスが縁に來た様子もDPk氏は1Jan(λ=011°Ls)ω=197°W、202°W、210°Wで撮っている。 縁は最後のもので210-90=120°Wだから未だオリュムプス・モンスは中である。同日のゴルチンスキ (PGc)氏の ω =198°Wにも明瞭、またSWk氏の ω =200°W/202°Wにも出ている。PGc氏のオリュムプス・モ ンスが少し中に入った像としては4Jan(λ=012°Ls)ω=181°Wがあるが、ここでは弱い(先行するタルシス が濃い)。尚、衝効果の名殘りとしてはJCt氏の1Jan(λ =011°Ls、 ι =07°) ω =096°Wでの朝方の像等に殘って いるが、ブルース(IBr)氏の5Jan(λ =013°Ls、 ι = 10°) ω =069°W、101°Wにも朝方に見られる。然し $8Jan(\lambda=014^{\circ}Ls$ 、 $\iota=12^{\circ})$ のSWk氏の $\omega=118^{\circ}W$ では最早見られない。尚、ニクス・オリムピカというのは スキアパレッリが1879年の10Novに發見したと言われ、この年の衝は12Novであったから、明らかに 衝効果によるオリュムプス・モンスの輝きを捉えた譯である。6)エリュシウム:1Jan(λ =011°Ls、 ι =07°) のアンダーソン(DAd)氏のω=192°W、DPk氏のω=197°W、202°W、210°W、PGc氏のω=198°W、216°W、SWk 氏のω=200°Wの何れのB光にもエリュシウムの北部が明るく出ている。これは反射によると思われる。 **7)テムペ、アルバ、クリュセ-クサンテ**:アルバ・パテラは春は略オリュムプス・モンスとおなじ動き をするので、春分以降、テムペから西に雲の帶が出來、その中で孤立して見えていたりするが、これ もA=050°Ls以降著しくなり、現在は未だ初歩の状態である。北の春分以降に見られる典型的な帶状の 雲は PLw氏の フʃan(λ=014°Ls)ω=081°W、 089°W、 091°Wの 像に 綺麗である。 同様に WFl氏の 12Jan (λ=016°Ls)ω=113°W、120°W、125°Wにも出ており、アルバは孤立して稍明るくなっている様子である。 アッレン(EAI)氏の14Jan(λ=017°Ls)ω=124°WでもBでアルバは孤立している。この緯度での帯状 の興味深い他の觀測を擧げると、1 $Jan(\lambda=011^{\circ}Ls)$ にはJCt氏の $\omega=096^{\circ}W$ 、137 $^{\circ}W$ 、RBs氏の $\omega=099^{\circ}W$ ~

134°W、10Jan(λ=015°Ls)のDPk氏のω=115°W、13Jan(λ=017°Ls)のPGc氏のω=093°W、120°W、ウォーレ ν (JWn)氏の ω =098°W、DPk氏の ω =122°W(アルバから更に西へ)、14Jan(λ =017°Ls)にはJWn氏の ω =089°W、 093°W、WFl氏のω=094°W、099°W等がある。なお、クリュセ-クサンテの夕霧は、上の何れの畫像に も強く出ている。**8)ニロケラス北方での擾亂**:10Jan(λ =016°Ls)にJCt氏が ω =034°Wでニロケラスの北方、 マレ·アキダリウムとテンペの間、水蒸氣混じりのダストの擾亂を紀録している。この時期は(MGSの 結果からも知られる様に)北極冠の周りで黄塵が盛んに起こる時で、この一種かと思われる。同日の EHd氏のω=045°W、049°W、056°Wの像にも見えていると思われる。何れにも共通する特徴はタナイ スと思われるところが赤茶色になっていることである。但し、直後のJSc氏の10/11Jan(λ=016°Ls) ω=061°W、070°Wでは少々違っている。12Jan(λ=017°Ls)のEHd氏のω=023°W、029°Wと比較すると最 早朝霧が見えるだけの様である。14Jan(λ =017°Ls)のPCq氏の ω =039°Wと比較するとスッキリ元に戻っ ている。9)北極冠/北極雲:北極冠は例えば1Jan(λ =011 $^{\circ}$ Ls)のどの像にも出ていると思われるが、 ϕ の 赤道に近い所爲で、厚くはない。一方、Ak氏の $14Jan(\lambda=017^{\circ}Ls)\omega=241^{\circ}W$ をみるとウトピアに極地から 雲が流れている様であるし、CPq氏の同じく14Jan(λ=018°Ls)ω=019°W、039°Wではマレ・アキダリウム の周邊に矢張り雲状のものが流れ出ている。從って未だ北極雲は殘っていると言うべきであろう。10) **ヘッラスについて:Mn**の4Jan(λ=013°Ls)でも、14Jan(λ=017°Ls)は休憩以降ω=274°W以後の觀測でもへ ッラスは平凡で内部構造が窺えない。尤もMkは4Janω=303°WでヘッラスのNW部に稍明るさを認め、 Km氏の4Janω=317°W/318°Wにも單純でない構造が出ている様で、今後がどうなるか。然し、結局今 までのところ大局的には今期は春分迄に http://homepage2.nifty.com/~cmomn2/2005Coming 14.htm で述べた様な現象は陽に見られ無かったということが出來る。この特徴あるヘッラスの姿は1990年に DPk氏のTP像によってλ=315°Ls邊りから(或いはもっと早くλ=295°Ls、δ=11.6"から)確認され、日本か らは λ =320°Ls邊りから視野に入ったが、これはMnの記録では λ =001°Ls(7Jan1991、 δ =12.7")までは明確 に朝雲と共に殘っていた(DPk氏の記録ではλ=358°Ls迄)。つまり、今回は多分に大黄雲の餘波でこの 姿を見せなかった譯である。水蒸氣の移動が常態でなかった可能性がある。今後、ヘッラスやアルギ ュレが霜に覆われて白くなる迄の變化には留意する。ただ、今回はヘッラスが輝くλ=100°Lsとなるの は接近末期で、視直徑が充分追いつかないであろうが。

3·····追加報告: We Further Received the following observations which were produced before 31 December.

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

2 Sets of RGB Images (19, 19n* December 2007) 36cm SCT, 28cm SCT* with a SKYnyx 2-0

CASTELLÀ, Jaume ファウメ・カステーヤ (JCt) 西班牙 Badalona, España

2 Colour + 3 IR Images (7 October; 13, 16, 28 December 2007)

f/50\(\sigma 28cm\) SCT with a DMK21F04.AS

KARRER, Michæl ミハエル・カッレル (MKr) 奥地利 St Radegund, Österreich

6 Colour Images (9, 16 October; 29 November; 5*, 18**, 21** December 2007) f/44⊗18cm Refractor, f/30⊗23cm SCT*, f/29⊗44cm Spec** with a SKYnyx 2-1M

KINGSLEY, Bruce A ブルース・キングスレイ (BKn) 英國 Maidenhead, UK

1 Set of RGB Images (2 December 2007) f/44\otimes 28cm SCT with a SKYnix2-0 at Barbados

Images of DAr resp MKr show the bright northern Elysium on 19 Dec (1=05°) resp 21 Dec (1=03°). However on JCt's image taken on 28 Dec (1=04°) at ω =145°W Olympus Mons does not shine perhaps because of a thin cloud covering. BKn's images taken at Barb on 2 Dec (λ =356°Ls) at ω =115°W show a southern mist expansion at Phaethontis as well as another northern expansion to the west of Tempe.

 $olimits_{\bullet}$ The next issue we shall return to normal and review the observations acquired during one month period from 16 January (λ =018°Ls, δ =13.8") to 15 February 2008 (λ =033°Ls, δ =10.4").

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便り

Letters to the Editor

• · · · · · Date: Wed, 9 Jan 2008 17:14:59 -0000 Subject: the sun today

Hi guys we had enough blue sky for a shot of the filament today. Alt was only 13deg at 13:16ut from UK, but not too much ripple. Best wishes

O····· Date: Fri, 18 Jan 2008 14:33:48 -0000 Subject: Mars 16-Jan-2008

Hi Guys, The seeing on the 16 was the best I have seen during this apparition (including Barbados). It is nice to see the clouds over Noachis. In the North Niliacus Lacus can be seen rotating onto the disc, and clouds of Mare Acidalium. RGB's are enlarged 170%. C14 plus 2 inch diagonal 4x powermate ATK filter block . trutek filters type 2 and Skynix 2.0. Best wishes

O····· Date: Fri, 18 Jan 2008 20:48:02 -0000 Subject: DUST

Hi Guys, Richard (McKIM) brought my attention to the dust. Lazy me had not got out 2005 comparison images. Well I have rectified the situation, and was quite astounded at the differences. Data from "Jupos"

Best wishes

http://www.david-tyler.com

Dave TYLER (デヴィド・タイラー Bkh 英)

• · · · · · Date: Wed, 09 Jan 2008 18:00:46 +0100 Subject: Mars 8.1.08

Hi all, last night I tried mars between clouds and through fog. Surprising: the green channel showed the finest surface detail...

Silvia KOWOLLIK

(シルヴィア・コヴォッリクLudwigsburg德)

• · · · · · Date: Wed, 9 Jan 2008 18:03:36 +0100 Subject: Mars images

Hello, Here are my last images of Mars...

Xavier DUPONT (グザヴィエ・デュポン Saint Roch 法)

• · · · · · Date: Wed, 9 Jan 2008 19:36:30 +0100 Subject: Mars final series 2008/1/1

Hi Guys, instead observing Mars because clouds are coming and going, i take some time to process all avies from 2008/1/1, six avies totaly (6 x RGB). Observe time 20h33-22h57 UT. One problem with a long session is the seeing and the same processing from each avie. So the color is not 100% identical also the resolution.

http://www.astrofotografie.nl/Mars.htm

From the six images I was able to make a smal gif rotation. Kindly regards

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

• · · · · · Date: Wed, 09 Jan 2008 20:03:46 +0000 Subject: Mars 1 January

Hi All, I have attached a number of Mars images from 1 January. (The Mars Date was April 1.) Olympus and Arsia orographic clouds were very bright on the evening limb. Numerous cloud streaks were seen over Ausonia, Eridania, and Electris. Best,

O···· Date: Thu, 10 Jan 2008 06:04:27 +0000 Subject: Mars 9 January

Hi All, I have attached some Mars images from 9 January. Prominent orographic clouds over the volcanoes and numerous clouds in the high southern latitudes. Note that eastern Cimmerium (Symplegades In.) appears vacuolated

and does Vorticis Depressio along the northeast border of Sirenum M. Best,

O···· Date: Thu, 10 Jan 2008 06:17:52 +0000 Subject: Chick Capen's Crater

Hi All, Our friend and mentor Chick Capen finally got a Martian crater named in his honor! Andy Chaikin sent me this URL:

http://www.spaceref.com/news/viewsr.rss.html?pid=26597

"A 70 km crater on Mars, located at 6.57°N, 345.73°W, has been named for the American astronomer Charles F. Capen." Best,

0.....Date: Sat, 12 Jan 2008 01:37:54 +0000 Subject: Mars 10 January

HI All, I have attached some mars images from 10 January. Numerous clouds and hazes. The "Sirenum Extension" has shortened, ending at Gallinaria Silva. Best,

O····· Date: Wed, 16 Jan 2008 01:22:50 +0000 Subject: Mars 13 January

Hi All, I have attached Mars images from 13 January. There was a band of clouds around 45 degrees northalso clouds in the high southern latitudes. Eastern Sirenum M. appears broken with the "Sirenum Extension" being only 2-3 dots ending in Gallineria Silva. Solis Lacus appeared broken into 3-4 dark nucleii. Best,

O · · · · · Date: Wed, 23 Jan 2008 05:19:45 +0000 Subject: Mars 19 January

Hi All, I have attached some Mars images from 19 January. Bright cloud over Argyre-Ogygis in the South. This appears to be localized, rotating with the planet as seen on earlier images that are yet to be fully processed. It and has remained in position as seen on the 22 January images by Pete Gorczynski and Efrain Rivera as well as that taken later on 19 January by Ethan Allen. Other clouds across Tempe and on the AM terminator. PM limb haze also prominent visually with a W-47 filter. Best,

Don PARKER (唐那·派克 Miami FL 美)

••••• Date: Wed, 9 Jan 2008 22:48:51 +0100 Subject: Drawing Mars 7 January 2008

New drawing with good seeing. My best regards **Gérard TEICHERT**(ジェラール・デシェール Hattstatt法)

• · · · · · Date: Wed, 9 Jan 2008 23:31:49 +0900 Subject: Mars-2008-01-09-KUMAMORI

昼間は快晴だったのですが、観測時間には雲が 多くなり雲間からの撮影でした。シーイングも悪 く、疲れます。

O···· Date: Mon, 14 Jan 2008 08:23:35 +0900 Subject: RE:#340

南様、『火星通信』は無事届いております。宛 名裏が破損していまして、セロテープで留めてあ りましたが、中身は全く正常でしたので、新品の 必要はありません。ご配慮ありがとうございます。

火星の高度はピークを過ぎたのですが、まだぎりぎりの状態が続いております。南中時間が一気に早くなってきましたので、こちらの方でも時間的な都合?を付けていくのが、だんだんと難しくなっていくところです。気流の方は何とも仕方がない状態で、海外での高解像に比べると、意欲が出てこないところです。

25 January 2008

Ser2-0853₋

とは言え、できる範囲で続けていくつもりです ので、よろしくお願いいたします。

熊森 照明 (Teruaki KUMAMORI 堺 Osaka)

..... Date: Thu, 10 Jan 2008 01:57:25 +0000 Subject: Mars, triplet, 7th Jan 2008

Hi all, Still ploughing through the data from the 7th. Here are 3 processed images showing Mars at 22h59m, 23h30m and 23h37m (R times). A bit of experimentation during the sessions together with an ad-hoc workflow has resulted in a slight colour variation between results. There appears to be good correlation between all observable features on consecutive images through. The seeing started to degrade marginally in the later part of the session as is the norm for my site when the planets approach the 200+ degree azimuth point. Best regards,

O · · · · · Date: Thu, 10 Jan 2008 11:22:39 +0000 Subject: Final Mars from the 7th (CM83.3)

Hi all, Apologies for the samey view, I guess you're getting close to saturation with the "eye" by now; This is probably my best process from the night of the 7th due

to a particularry nice red. Olympus Mons, rotating into view, stands out quite nicely here. Best regards,

O···· Date: Tue, 15 Jan 2008 11:49:38 +0000 Subject: Solar activity on the 14th January 2008

Hi all, A largely blank disk on the 14th of January but some interesting prominence activity rotating out of view on the south western limb. This was quite prominent in the CaK view as well. Best regards,



Pete LAWRENCE (ピート・ローレンス Selsey 英)

• · · · · · Date: Thu, 10 Jan 2008 12:08:20 -0800 Subject: RE: Chick Capen's Crater

For those of us (including myself) too young to remember Chick, here's a very short biography:

http://www.skyandtelescope.com/observing/home/13675542.html

O····· Date: Thu, 10 Jan 2008 18:42:50 -0800 Subject: Mars 1/8, 1/9

Here are two sets of images taken under poor conditions. Quite a cloudy season on Mars right now.

O····· Date: Tue, 15 Jan 2008 19:00:22 -0800 Subject: RE: Mars 13 January

Very good seeing early this evening. Note the clouds at sunrise over Nectar through Argyre in the south, as well as a prominent band curving from Candor through Mare Acidalium in the North. NPH still hiding the pole.

..... Date: Wed, 16 Jan 2008 09:35:41 -0800 Subject: Mars January 16

Second set of data of the night, better than the first. Unfortunately, the last of the evening as I ran out of laptop battery, then the clouds on Earth came in <g>. Cheers,

O····· Date: Fri, 18 Jan 2008 13:04:16 -0800 Subject: RE: DUST

Very nice David (TYLER)- I think its settled dust from the summer storms. My image from 1/16 shows it also: http://homepage2.nifty.com/~cmons/2007/080116/SWk16Jan08.jpg Earlier shots also hint at it:

http://homepage2.nifty.com/~cmons/2007/071226/SWk26Dec07.jpg http://homepage2.nifty.com/~cmons/2007/071211/SWk11Dec07.jpg http://homepage2.nifty.com/~cmons/2007/071209/SWk09Dec07.jpg http://homepage2.nifty.com/~cmons/2007/071005/SWk05Oct07.jpg

Sean WALKER (ショーン・ウォーカー S&T 美)

..... Date: Thu, 10 Jan 2008 15:49:16 -0800 Subject: Re: Chick Capen's Crater

Hi Don: I never met Chick, but remember some of your and Jeff's stories about him. There are two HiRISE images across the layered terrain within this crater:

http://hirise-pds.lpl.arizona.edu/PDS/EXTRAS/RDR/PSP/ ORB_002500_002599/PSP_002574_1865/PSP_002574_1865_RED.abrowse.jpg $http://hirise-pds.lpl.arizona.edu/PDS/EXTRAS/RDR/PSP/\\ ORB_003400_003499/PSP_003418_1865/PSP_003418_1865_RED.abrowse.jpg$ Probably a stereo pair, but I haven't tried to view them in stereo. planetarily,

Tim PARKER (ティモシィ・ハ゜ーカー NASA 美)

.... Date: Thu, 10 Jan 2008 17:27:42 -0700 Subject: RE: Chick Capen's Crater

Hey all, I just got back from Iraq a couple of weeks ago and am happy to see this news about Chick. Ditto Mr. Phillips remarks. Chick nurtured me in the early 80's. I still have all the correspondence between him and myself, some autographed pamphlets he gave me, a book etc. I finally was able to meet him at an ALPO meeting in Wisconsin and spent quite a bit of time with him and good ole Mongo. Quite a pair together I might say!!!!

Anyhow great news. Thanks to whomever is responsible for getting this done. Thanks

O · · · · · Date: Thu, 10 Jan 2008 17:31:09 -0700 Subject: RE: Chick Capen's Crater

Joel: I do not know if his wife is still living or not, but I know they had a son named (correct me if I am wrong someone) Regulus. Perhaps Don or Jeff know more. Thanks

Dave MOORE (デヴィッド・ムーア Phoenix AZ 美)

• · · · · · Date: Thu, 10 Jan 2008 17:57:19 -0600 Subject: Re: Chick Capen's Crater

Jeff has told me many stories about Chick in private e-mails. I wish I would have had the honor of knowing him and talking Mars with him. But its really great this honor has been given to him and from what I understand, it was certainly earned. I don't know if he has any living relatives, but hopefully he does, because I'm sure they will really appreciate it. Regards,

O····· Date: Sat, 12 Jan 2008 23:07:00 -0600 Subject: Image: 01-13-08 03:10 UT

Greetings everyone, It has been about 60 days of the worst seeing I have ever experienced. If there weren't clouds, then seeing was so poor no albedo features could be seen on the disc. Tonight was the first time in about 2 months that I have been able to detect albedo features while capturing. Conditions were still poor, but at this point, I can't complain. But in regards to the image, as others have been reporting, there is quite a bit of cloud activity. One thing I did notice is a somewhat wide band of haze/clouds south of the NPC in Arcadia stretching almost across the entire disc. Actually, 2 large areas with a small break near the CM.

http://marswatch.amaonline.com/01-12-080310.jpg O····· Date: Sun, 13 Jan 2008 22:25:35 -0600 Subject: Images: 01-14-08

Greetings everyone, 2 images from this evening, 15 minutes apart. Numerous clouds in the southern region, south of Solis Lacus extending towards the morning limb. They show up really well in the 03:25 UT image. Still cloud activity south of the NPC too, almost like a frontal band, and interestingly enough, there is the same break near the CM as 24 hours ago. http://marswatch.amaonline.com/01-14-080310.jpg http://marswatch.amaonline.com/01-14-080325.jpg Regards,

Joel WARREN (ジョエル・ウォーレンAmarillo TX 美)

• · · · · · Date: Thu, 10 Jan 2008 20:07:50 +0000 Subject: Mars 2007 December 19

Decent conditions on this occasion. Also it was the first time I used the Televue 5x Barlow. It was immediately obvious to me this was an excellent piece of glass that I would have done better to get sooner.

The great creater Huygens partly resolved (S following corner of Syrtis), the NPH retreating and fragmenting, revealing Utopia to Ismenius Lacus.

http://www.darditti.dircon.co.uk/mars2007-12-19-DLA.jpg
O·····Date: Thu, 10 Jan 2008 22:08:02 +0000
Subject: Mars 2007 December 19 (2)

Here is a second set from the 19th, because I imaged in the late evening as well as early morning of that date. In the evening, I used my C11 for a change. Conditions were again quite good, and lower longitudes were captured than in the morning session.

Comparison of these with the C14 images gives a good idea, I think, of the difference in results with these scopes operated by the same user under similar conditions with the same additional equipment. The C11 gives a lot of detail, but it is pushed to its limit at this image scale, and it doesn't quite give the sharpness, detail and sense of solidity of the C14 image.

Elysium looks interesting as a surprisingly concentrated bright patch approaching the p limb.

http://www.darditti.dircon.co.uk/mars2007-12-19(2)-DLA.jpg
O····Date: Thu, 10 Jan 2008 23:42:25 +0000
Subject: Mars 2008 January 09

This is from last night, my first Mars since 2007 Dec. 19. Conditions were very sub-optimal as the wind was blowing it about, and I had to image long before culmination as the clear patch over London was forecast to disappear by mid-evening, which indeed it did.

There is a bright cloud on the morning terminator N of Mare Australe - an area which seems to be called Chrysokeras.

http://www.darditti.dircon.co.uk/mars2008-01-09-DLA.jpg
O····· Date: Mon, 21 Jan 2008 00:11:34 +0000
Subject: Mars 2007 January 16 and 17

I managed to image just after midnight on both these dates, though, contrary to the opinion of my friend Martin Lewis, who lives only a few miles away, I thought the seeing was very bad all the time. It was also windy. I have tried to make the best of these rather blurry images by processing them with an R-derived luminance layer (RRGB), though there is always a hard-to-avoid temptation in this situation to over-process.

Nevertheless, some interesting atmospheric detail is has come out, particularly on the 16th, with wispy blue cloud bands over Argyre and Thaumasia.

http://www.darditti.dircon.co.uk/mars2008-01-16-DLA.jpg http://www.darditti.dircon.co.uk/mars2008-01-17-DLA.jpg

David ARDITTI (デヴィッド・アーディチ Edgware ME 英)

• · · · · · Date: Fri, 11 Jan 2008 10:30:13 -0500 Subject: Crater Capen

Masatsugu-san, You most likely know this by now, but just in case I will notify you that a Martian Crater Named for Charles F. "Chick" Capen: After his passing

two decades ago a 70 km crater on Mars has been named for the American astronomer Charles F. ("Chick") Capen. Crater Capen is located at 6.57°N, 345.73°W, in Arabia, about 10° north of Schiaparelli.

Great news for all his old buddies out here. My web site http://www.dustymars.net/ChickCapen.html features his brief biography that he used while lecturing back in the 1980's.

Jeff BEISH (ジェフ・ビーシュ Lake Placid FL美)

• · · · · · Date: Fri, 11 Jan 2008 22:11:22 +0100 Subject: Mars 10th January 2007

Dear Sirs, Please find attached an image of Mars of 10th January. It seems to show some activity below Nilokeras area.

This is the first image I send to CMO and I would appreciate if you could confirm if all the data included in the image is enough or I should add any other information for your convinience.

Thanks in advance and best regards,

O···· Date: Mon, 14 Jan 2008 17:57:56 +0100 Subject: Re: Mars 10th January 2007

Dear Masatsugu san, Thanks for you reply. I am attaching some past images of this current opposition. I have a few more that are still in progress. I will send them as soon as I consider them finished. Thanks again and best regards,

O····· Date: Tue, 15 Jan 2008 10:49:35 +0100 Subject: Mars 14/01/2008

Dear Masatsugu, Please, find attached an image of Mars of 14th January 2008 showing the Nilokeras area. The activity seen some days before is now not so visible. I think the reason is that at that time, this area was closer to our line of sight and thus, the atmosphere thickness is reduced. I have seen images from other observers, taken some hours before with this area closer to the limb of the planet and the activity is clearly visible. Best regards,

O···· Date: Tue, 15 Jan 2008 18:34:39 +0100 Subject: Re: Mars 14/01/2008

Dear Masatsugu, Thanks for your detailed explanation. I am happy to contribute with my images to Mars observation. Best regards,

O···· Date: Wed, 16 Jan 2008 12:53:21 +0100 Subject: Mars

Dear Minami, Please find enclosed a second image of 1st January taken later at 23:09 UT showing the Tharsis area. High clouds are visible on the three volcanoes as well as Nix Olympia in the center on the image. With this image I am up-to-date with my Mars data of this opposition. Best regards,

Jaume CASTELLA (ファウメ・カステーヤ Badalona 西)

• · · · · · Date: Sat, 12 Jan 2008 16:32:14 +0100 Subject: Mars 10-11 January

Hello: Images with fair seeing showing a cloud system at the north of Nilokeras.

Jesús SÁNCHEZ (ヘスス・サンチェス Córdova 西)

• · · · · · Date: Sun, 13 Jan 2008 14:33:50 -0000 Subject: Recent Mars

Dear Dr Minami, I have pleasure in sending my most recent Mars observation of 2008 January 10d 21h15m - 22h45m UT. I'm pleased to say that for once, the seeing was a little more cooperative on this occasion, allowing more detail to be made out on the Martian disk than so far this apparition. Unfortunately cloud rolled in at

25 January 2008 Ser2-0855

22h45m UT, curtailing the observation, and the nights have been cloudy since then. All the very best,

O····· Date: Sun, 20 Jan 2008 16:08:11 -0000 Subject: Mars 2008 Jan 17d 21h 20m - 22h 25m UT

Dear Dr Minami, I attach an observation of Mars made on January 17d. I'm not convinced that I've correctly positioned the preceding end of Sinus Sabaeus but the seeing was not very good. Needless to say, the night sky continues to be generally cloudy, with no improvement forecast. All the best.

David GRAHAM (デイヴィッド・グレアム NYs 英)

• · · · · · Date: Sun, 13 Jan 2008 17:18:53 +0100 Subject: Mars 12-1-2008

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

Nacho ZURUTUZA (イク゛ナシオ・スルトゥサAsturias西)

●・・・・・ Date: Sun, 13 Jan 2008 23:15:01 +0900 Subject: Re: ご機嫌如何ですか

Dear Minami-san, Thank you for your e-mail. It's good to hear from you! I'm very sorry to hear about the personal mourning you are going through. My prayers are with you and your family at this difficult time.

Well I've almost but given up on the winter seeing conditions this latter Mars season, due to the persistent jet stream as you mentioned. I did manage some visual views on opposition as well as Christmas night last year. I also took one AVI in early December that I still haven't had time to process yet.

Things have been quite busy here, but I continue to wait and watch for any brief improvement in seeing. We are truly getting hammered non-stop by the jet this time around (attached jpeg shows what it's like almost every day this winter). Actually on Dec. 26th the jet pattern was fleetingly decent apparently, but we took the family to Tokyo Disneyland for a few days over the holidays at that time. Was quite a sight to see Mars shining brightly over the Magic Kingdom amid a storm of fireworks anyway.

I hope to be able to send a few images in the coming months if conditions will just improve a little. In a sense not imaging creates greater motivation towards this hobby (as well as a longing for SPRING!)

I wish you a happy and healthy 2008, and clear and steady skies there in Fukui! Will write again/send images as soon as I can. Best wishes as always,

Robert HEFFNER (ロバート・ヘフナー 名古屋 Aichi)

• · · · · · Date: Mon, 14 Jan 2008 00:56:21 +0100 Subject: Re: npc growing

Dear Masatsugu, · · · About the NPC issue, my reading of MGS images is that it is formed well before Ls 0 - the montage I sent for me shows that the maximal extent of the dry ice is already reached near Ls 320 - more or less, but this is only a small part in longitude. I did not read data prior to Ls 320 (and the angle of MGS imaging closer to the winter solstice is less and less favorable for viewing the winter polar region), but for me the cap forms gradually at least from the end of autumn (Ls 250 or 260) and should be complete after Ls 300. Of course data from images is rare and difficult to interprete as by the way, we're talking about a polar night event! This is why we could introduce another way to look at the problem by the variation of atmospheric pressure on Mars

(that is not completely coherent with my opinion). One book I have ("La planète Mars" from Forget, Costard, Lognonné) contains one chapter titled "an atmosphere that solidify itself". The autors explain that the amount of CO2 trapped into the polar caps during winters is so important that it's possible to speak about a solidifying atmosphere for Mars. We could then link the decreasing atmospheric pressure on Mars with the building of the caps, this sounds really logical. The data published in the book is from Viking 1 stands that the pressure is maximal near Ls 270 (900 Pa) when the major part of the CO2 ice from the SPC has sublimed, and when the NPC is then still not formed. The pressure then begins to decrease at about Ls 300 and reaches a (secondary) minimum of 800 Pa near Ls 340-350. This would mean that before Ls 340, the cap is still growing. This doesn't look coherent with my interpretation of MGS images if I say that the limit of the cap is reached after Ls 300. I can be wrong, or maybe the limit is reached but the cap is then still getting thicker? Anyway I did not think about it before, but this data this time is far from being coherent with the idea of the cap being suddenly formed near Ls 0 ; because the data should then show a sudden drop of pressure near Ls 340-350 and this is not the case... The first minimum of pressure (less than 700 Pa) looks to correspond to Ls 150 (the greatest part of CO₂ is trapped in the biggest SPC), and the secondary maximum of pressure (840 Pa) happens near Ls 60-70 (point when we could speak about the beginning of SPC growth). I don't know if it's possible to find the curve on the web but please ask me if you want me to post a copy of the chapter, ok?

>(your) challenging

>idea of the frost or ice on the summit of Olympus Mons was interesting >though I don't approve readily because the brightening looks to me no >more than a diffused reflection, as well as the brightening area is

>larger in scale than the summit. But if a moist air at the orographic >cloud period may weaken the brightness, it has a possibility.

This was a very curious point to me as I had never hear before of any frost event on a volcanoe summit. This possibe explanation has been given by François Colas during those days on a french Yahoo list; and for me it is the only coherent with the images data; the only situation on Mars when a detail is bright white on every color even IR is when the detail is covered by frost. No faint white cloud can survive the IR eye... Moreover you know how rigid is the evolution of the martian climate and the Olympus cloud just can't be forming at Ls 320 (not before Ls 350)... and there was dust flying on the atmosphere of Mars so it looks even more impossible to me! As for the "diffuse" aspect, just look at Damian's set from the 6th of november: R and G images (I regret no B is present) do show a very precise bright summit. I have visually witnessed this singular aspect of OM during that night of nov. 5-6th; I remember clearly a bright point, not only "clear" as in 2003 when there was "only" a opposition effect. I could not see OM in 2003 visually. I hope that these informations will reach your interest! Sincerely yours,

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

• · · · · · Date: Mon, 14 Jan 2008 12:26:34 -0600 Subject: Mars Images from 12-January

Dear Masatsugu, Attached is a set of Mars images from 12-January. Seeing wasn't great and Mars is getting smaller. The blue images still show lots of interesting

cloud features. Best regards,

O···· Date: Tue, 15 Jan 2008 12:01:29 -0600 Subject: Mars Images from 14 January

Dear Masatsugu, Attached is a set of Mars images from 14 January. Seeing was a little better than on the 12th. Lots of interesting cloud activity in the polar regions. Best regards,

Bill FLANAGAN (ビル・フラナガン Houston TX 美)

• · · · · · Date: Tue, 15 Jan 2008 12:39:13 +0900 (JST) Subject: C14 recovery AKM080114

こんにちは、昨夜からC14で火星が撮れるよう

になりました。

阿久津 富夫(Tomio AKUTSU セブThe Philippines)

• · · · · · Date: Thu, 17 Jan 2008 09:21:43 -0800 Subject: Mars 14 January 2008

Hi Masatsugu, Here's Mars on 14 January. I was lucky to get anything from this session as the fog closed in on me after the first clips! These images show the cloud near Alba Patera. Best.

O···· Date: Mon, 21 Jan 2008 17:11:51 -0800 Subject: Mars 19 January 2008

Hi Masatsugu, Here's Mars on 19 January. Argyre

TEN YEARS AGO (149)

----CMO #199 (25 January 1998) pp2211-2226----

巻頭の新年挨拶に続いては、正月に福井で開催された「第六回惑星観測者懇談会」"6th Workshop of the CMO Planetary Observers held on 3 January 1998"の報告である。参加者は福井の南(Mn)氏・中島(Nj)氏・西田(Ns)氏はもとより、沖縄から比嘉(Hg)氏が年明け早々に来福し、筆者(Mk)も二日に、三日には、クアッラ(GQr)氏 Gianni QUARRA(Italy)が京都から、阿久津(Ak)氏が金沢廻りで午前中に到着して、足羽山で昼前から懇談会の開催となった。日岐(Hk)氏も三日午後には到着して、当日夜遅くまで懇談会が続けられた。GQr、Ak、Hg各氏からは、それぞれの違ったCCD画像の撮影法・処理法が披瀝されて、比較・検討された。CCD観測を目指していたNs氏は各氏からのアドヴァイスを受けた。眼視派のMn、Nj、Hg、Mkにも大変有意義だった。当夜の天候は残念ながら曇で、前夜のように土星などに望遠鏡を向けることはな

かったが、三国の南氏のお宅に深夜戻ってからも話の尽きる ことはなかった。今回も福井のお三方には懇談会の、開催・ 宿泊・移動など大変お世話になった。

OAA MARS SECTION Reportは、森田行雄(Mo)氏からの多数のCCD画像の追加報告が取り上げられた。1997年四月から七月までの70セットの画像で、年末に到着して、懇談会でも披露された。

LtEは、David GRAY (UK), Giovanni QUARRA (Italy), Elisabeth SIEGEL (Denmark), Samuel WHITBY (USA), Francis OGER (France)の外国の諸氏から、国内は、比嘉保信氏(沖縄)、山本進氏(滋賀)、森田行雄氏(広島)、阿久津富夫氏(栃木)からの便りがあった。新年の賀詞 (Greetings)も以下の諸氏から寄せられている。Nikolas BIVER (France), Thomas & Venessa CAVE (USA), Audouin DOLLFUS (France), Alan & Joan HEATH (UK), Richard McKIM (UK), Wolfgang MEYER (Germany), Samuel WHITBY

TSSN 09,17-7388
COMMUNICATIONS IN MARS ODSCRIPTIONS

IN 1999

25 January 1998

Mars Section

Mars

(USA), 木材精二氏(東京)、村山定男氏(東京)、大澤俊彦氏(福岡)、蔡章献氏(臺北)。

TYA(29)は、CMO#043(10Jan1988)とCMO#044(25Jan1988)が取り上げられている。火星はようよう朝方に戻っていたが、さそり座で南に低く、福井での集中観測の報告だけであった。「報告用紙の体裁について」という記事があり、報告様式の統一が計られているのが判る。このことは大切なことで、現在にも通じることだと思う。データ不足の報告に戸惑うことも多い。コラム記事は、南氏の「夜毎餘官・LV」で、タイトルは●黄猫・黒猫●とあるが猫の話は枕で、各国での色を表す官葉と実際の色彩との差の話である。落ちるところは、やはり火星の「黄雲」の話となる。

looks quite wet. Also, there is some interesting atmospheric activity over Mare Acidalium & Tempe. I wish the seeing was better for this session as the images are suggestive of water/dust interaction over Tempe.

Best wishes,

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

• · · · · · Date: Thu, 17 Jan 2008 20:48:45 +0000 Subject: Mars image 2008 January 16th (Red)

Gentlemen, a Mars image from last night for your consideration. Only red light at the moment, still working on an RGB composite that does credit to the detail in the red.

First decent look at the red planet since the new year, the weather, in south-east England at least, has been very poor and very wet, but last night saw a brief period of improving seeing and a frost before the clouds rolled back in.

Finally this face of the planet looks clear and the dark markings sharp, this seems to have been the area where the dust cleared slowest and was still rather indistinct when last seen from Europe. Hellas was prominant and bright earlier in the evening, fading as it approached the limb. Hope image is of interest. best regards for now.

O···· Date: Sun, 20 Jan 2008 21:22:26 +0000 Subject: Extended Mars image from Jan 16th

As promised now with RGB composite, regards lan HANCOCK (イアソ・ハンコック Canterbury 英)

• · · · · · Date: Fri, 18 Jan 2008 00:29:11 EST Subject: Mars: January 17, 2008

Hi! I have attached my latest image of Mars Jan. 17th to be posted. Thanks,

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

• · · · · · Date: Fri, 18 Jan 2008 17:59:20 -0000 Subject: Mars 080114_15

Hi here my first 2008 Mars

http://www.astrosurf.com/pcasquinha/mars_080114_15.jpg

O····· Date: Fri, 18 Jan 2008 21:16:18 -0000 Subject: RE: [marsobservers] Re: Mars 080114_15

Hi Richard (McKIM), I imaged the same area yesterday and the dust line it's still there and it seams stronger, I attach a quick process of a red channel just to show you, I'll send all the set as soon as I finish the processing.

Regards

O····· Date: Sun, 20 Jan 2008 15:25:15 -0000 Subject: Mars 080117

Mars image from January 17

http://www.astrosurf.com/pcasquinha/mars080117.jpg

O····· Date: Tue, 22 Jan 2008 21:23:45 -0000 Subject: Mars 2008/01/19

Mars on January 19

http://www.astrosurf.com/pcasquinha/mars080119.jpg My best regards

Paulo CASQUINHA (パウノレ・カスキニャ Portugal 葡)

• · · · · · Date: Fri, 18 Jan 2008 13:47:03 EST Subject: Re: Mars 080114_15

Dear Paolo, Your image of Jan 14 appears to show a thin streak of dust from Hellas that cuts Hellespontus, and runs to the south of Noachis, interacting in a complex manner with the white polar cloud! I would be glad to hear of other observations of this feature.

Excellent work.

O····· Date: Sun, 20 Jan 2008 14:52:32 EST Subject: Re: Fw: Messenger at Mercury

Dear Bill (SHEEHAN) et al. I have certainly enjoyed these pictures and appreciated the fact that they were released at once. The attached note will appear in the BAA Journal in 2008 February, and represents the best amateur CCD work done on Mercury, since 1990, at least that which was sent to me (wearing my other BAA hat) as Director of the Mercury & Venus Section. I have never corresponded with Dale Cruikshank and am pleased he will also receive this, for we have in our files the Mercury drawings he once made at Yerkes. (We also have unpublished drawings by the ALPO observer who tried to map the libration zones of Mercury, as they were known at that time. His map is in Sandner's book.) The idea of defocusing the Mariner images to match the ground based view was done very nicely by Audouin Dollfus in the 1970s.

I have been asked to review the images from Messenger for the April JBAA by the editor and will be very glad to receive anyone's input and thoughts. Kind regards from a very cloudy and very wet Great Britain,

Richard McKIM (理査・麥肯 Peterborogh 英)

• · · · · · Date: Fri, 18 Jan 2008 15:50:25 -0500 Subject: Solar prominences sketches and report 2008Jan18

Still not quite recovered from the neck surgery, Paul was good enough to open and close the roll off roof of the observatory for me. I was able to carry down the battery supply for the LXD75 for tracking as well as close up (after my session) the southern drop down wall that enables me to view the Sun at the lower altitude. The enclosed area within the observatory certainly helps control the stability of the scope with the winds today at 11.5 mph. The temperature was comfortable at 26F, but with the lack of surface details, I wrapped up the session

The haze limited the performance at higher magnification, but with a little patience, I had moments where I could drop down to 7mm (57x) with the zoom eyepiece. Seeing flipped back and forth and the best views seemed to be around 30x magnification.

in just less than an hour's time.

There were 7 areas of prominences that I was able to record with no significant surface detail. Three of these areas were sketched.

The brightest prominence was about 55 degrees PA and I did a three sketch sequence of it noting the small changes in appearance over 40 minutes' time span. This was after the original overall sketch of the limb. The basic outline of this prom really didn't change a great deal. But looking closely within the structure, there was quite a difference in the intricate network.

At 1209ST (1709UT) at the end of the session around 70 degrees PA, a very bright small blob of a prominence appeared and then left just about as quickly. It may have just been that I was able to see it well during a brief moment of steady clear seeing. Still, it was very noteworthy and I was happy to catch it.

Sketch media: black Strathmore Artagain paper, white Conte' and white Prang pencils, white vinyl eraser, fixative

Post processing: -25 brightness, +4 contrast, resized and created collage by pasting selected prominences on black background. Used digital disk for position angles from Tilting Sun program.

O····· Date: Mon, 21 Jan 2008 14:53:33 -0500 Subject: Compared solar views of yesterday and today with new report 2008 01 21, 1155ST -1241ST (1655UT - 1741UT) Solar H-alpha PCW Memorial Observatory, Zanes-

ville, Ohio, USA, Lat: 40.01 / Long: -81.56 Temp: 19.0°F / -7.2°C Winds: from the South at 6.9 mph, light cirrus Wind chill ~ 12F Humidity: 42% Seeing: 5/6 with moments of 4/5 Transparency: 2/6 Alt: 29.3 Az: 168.6

Equipment: Internally double stacked Maxscope 60mm, LXD75, 40mm ProOptic Plossl, 21-7mm Zhumell Sketch Media: Black Strathmore Artagain paper, white Conte' and Prang pencils, white vinyl eraser. Added -27 brightness, +6 contrast after scanning. Tilting Sun program used for digital Sun insert.

Yesterday I had forgotten to record drift before I brought the Maxscope back inside and closed up the observatory. Not feeling like setting back up again to record drift, I guessed the orientation incorrectly. Today, I observed close to the same time as vesterday and with the diagonal near the same position and by comparing today's sketch with yesterday's, I think I can safely say

the SW prom that sketched was I actually SEa prominence. I'm sorry for my error, but happy to supply a compared view of the two solar sketches.

Please note the differences in the 55 deg PA and the 135 deg PA (approximately) prominences between the two



days. The NE prom developed into a beautiful display today that at first glance appeared to be a soft mushroom head with hardly a stem beneath it. Nine minutes later and bumping up the magnification, it took a completely different structure with clearly several legs reaching to the limb as well as a pointed tip swaying to the north.

The SE prominence today at first glance was shaped like a beautiful mosque. Bumping up the magnification made it more difficult to see as much detail because the sky conditions took a turn for the worst and I had to keep waiting patiently for moments of clarity to complete the prominence sketch. By the time it became steady and clear, the prom had changed too much for me to add the fainter portions of it. The plage that I noted yesterday was no where to be found today.

Erika RIX (エリカ・リックス Zanesville OH 美)

..... Date: Sat, 19 Jan 2008 22:29:07 +0100 Subject: Mars 13 januar

Hi Fellows, Due to a busy time schedule just had time to proces the data from a week ago. (I guess you were waiting for this Richard). Conditions were poor most of the time only 2 channels were fair I suppose, the blue suffered alot from flying clouds the spots just below the south pole were also captured they were not present on my 13th of december capture of this cm. contrast is lowered then previous one but the blue clouds aren't extended like on Paolo's capture on the 14th, the npc has extend clouds on this side. The 00:15 ut one has some rotation due to clouds best to all

.... Date: Sun, 20 Jan 2008 18:02:59 +0100 Subject: Mars in a month time

Hi Fellows, Here a comparison in a month time, nice to see that de southpole moved more toward us, also the clouds around NPC is different and of course the npc itself became visible. best wishes

○····Date: Sun, 20 Jan 2008 21:40:07 +0100

Subject: Mars albedo maps 2205 and 2007

Hi Guys, Another mail from me this time with the albedomaps from 2005 and 2007, alot to talk about the differences between those oppositions, noteworthy at first sight the dark area left above Syrtis Major in the 2005 version this was more defined....wish the resolution was the same as in 2005 despite the use of the DMK...little dissapointing this time. best

Jan ADELAAR (ヤン・アデ・ラール Arnhem 荷蘭)

•••• Date: Sun, 20 Jan 2008 12:28:01 -0600 Subject: Fw:

To my fellow Mercury enthusiasts:

I sent this letter (and images) to Rick Fienberg at Sky & Telescope. It may be of interest.

IKE everyone else, I've been enjoying the cache of images of Mercury from Messenger. We've seen nothing like this since the days of Mariner 10, 33 years ago. I had been especially eager to see these images because they show for the first time the unknown face of Mercury--the side hidden in darkness during Mariner 10's three fly-bys during 1974-75 and thus never captured in high-resolution spacecraft images.

Ironically, this side of the planet, while the last surveyed by spacecraft, had also been the first scrutinized in detail by telescopic observers--it was on view during Giovanni Schiaparelli's pioneering survey of the planet with the 8.6-inch Merz refractor and the 19-inch Merz- Repshold refractors of the Brera Observatory. As noted in Tom Dobbins's and my article, "Mesmerized by Mercury" (Sky & Telescope, June 2000, pp. 109-114), as

Schiaparelli studied the pale markings on the planet during daylight hours, his attention was drawn to a figure-of-5 marking, and it made such a strong impression on him that it contributed to his concluding for a synchronous rotation of the planet and--since at times he could not find it when he expected it to be on view--to his controversial view that the planet was sometimes swathed in dense clouds. we wrote in that article (at p. 114): "To this day the figure-of-5 that led Schiaparelli astray remains a mystery, since it lay hidden on the averted hemisphere when the Mariner 10 space proble flew past Mercury in 1974 and 1975 and took high-resolution imges of about 45 percent of the surface."

No more. Messenger has now given us a good view of the planet--and this allows us to do a check on the accuracy of Schiaparelli's observations. On the left, I have reproduced Schiaparelli's drawing from the 1880s (from a letter to Edward S. Holden, dated March 20, 1889; from the Mary Lea Shane archives of the Lick Observatory), on the right Messenger's global view of Mercury which I have blurred and contrast-enhanced and inverted to make it

more nearly resemble a telescopic view of the planet. One can make out a general likeness; in particular, there is a band of darkness snaking its way





across the disk that corresponds to the Schiaparellian figure-of-5. In addition, several of the bright spots that Schiaparelli and others recorded--and which the great astronomer of Milan thought were brilliant clouds--show up in the positions occupied by bright rayed craters. And the southern hemisphere (at the top of the figure) appears

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dusky, thus confirming the impression of another visual planetary observer, Johann Schröter, who called attention to Mercury's blunted southern cusp as early as 1800.

All in all, the visual observers did quite well in making out some of the features on this difficult-to-observe planet.

Bill SHEEHAN (ウィリアム・シーハン MN 美)

• · · · · · Date: Sun, 20 Jan 2008 16:37:07 +0100 Subject: Mars 19th January 2008

Dear friends, We would like to contribute to your Mars gallery. I took this Mars image on January 19tht 2008, at 19h 30m UT. I use an C9.25 and a Moonfish barlow 3x.

Best regards. With **Lidia SANZ**

Alberto BERDEJO(アルヘ・ルト・ヘ・ルデ は Zaragoza 西)

• · · · · · Date: Sun, 20 Jan 2008 19:58:29 -0800 Subject: Mars January 19, 2008

Variable conditions affecting color result. Best Regards, **Ed LOMELI** (エト・ロメリ Sacramento CA 美)

• · · · · · Date: Sun, 20 Jan 2008 23:17:08 -0000 Subject: Mars from 16/01/08

Dear Masatsugu, Here is my RGB image of Mars for

inclusion in your Gallery, Mars from the 16th Jan., where the good seeing was quite unexpected. Was hoping to image Coprates later but cloud rolled in.... Still this nice view was some recompense. Best Wishes,

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

• · · · · · Date: Mon, 21 Jan 2008 22:30:27 +0100 Subject: Mars 2008.01.19

Dears, Mars under good seeing (probably my best): http://astrosurf.com/delcroix/images/planches/me.php?y=2008&m=1&d=19
Please note the haze south of north polar cap, on the south of the globe and near the limb. Clear skies,

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

• · · · · · Date: Tue, 22 Jan 2008 12:43:59 -0500 Subject: RE: DUST

Hello Everyone: I measured Mars' brightness on Jan. 21/21 from 0:30 UT to 5:00 UT and the brightness was normal. This is consistent with little or no dust in Mars' atmosphere between longitudes of 345 W to 70 W.

Richard SCHMUDE Jr (リチャート・・シュムト GA美)



Forthcoming 2007/2008 Mars (18) -

Ephemeris for the Observations of the 2007/2008 Mars. IX March and April 2008 (Revised)

- Masami MURAKAMI 村上 昌己(Mk)

As a sequel to the Ephemeris VIII (in CMO#340), we here list the necessary elements of the Ephemeris for the physical observation of Mars from 1 March 2008 to 30 April 2008. The data are listed for every day at 00:00 GMT (not TDT). ω and ϕ denote the longitude and latitude of the sub-Earth point respectively. The symbols $\lambda,\,\delta$ and ι stand for the areocentric longitude of the Sun, the apparent diameter and the phase angle respectively.

From this apparition, we also add the column of the Position Angle Π of the axis rotation, measured eastwards from the north point: This is useful to determine the north pole direction from the p \leftarrow . The apparent declination D of the planet is also given at the final column. The data here are basically based on *The Astronomical Almanac for the Year 2008*.

Date (00:00GMT)			ω	φ	λ	δ	ι	П	D
01	March	2008	331.81°W	0.2°N	38.86°Ls	9.06"	35.0°	-27.0°	+26°16'
02	March	2008	322.43°W	0.3°N	39.31°Ls	8.98"	35.2°	-26.9°	+26°15'
03	March	2008	313.04°W	0.5°N	39.76°Ls	8.89"	35.3°	-26.7°	+26°14'
04	March	2008	303.64°W	0.6°N	40.21°Ls	8.81"	35.5°	-26.6°	+26°13'
05	March	2008	294.24°W	0.8°N	40.66°Ls	8.74"	35.6°	-26.4°	+26°12'
06	March	2008	284.83°W	0.9°N	41.11°Ls	8.66"	35.8°	-26.2°	+26°10'
07	March	2008	275.41°W	1.1°N	41.56°Ls	8.58"	35.9°	-26.1°	+26°09'
08	March	2008	265.99°W	1.3°N	42.01°Ls	8.51"	36.0°	-25.9°	+26°08'
09	March	2008	256.57°W	1.4°N	42.46°Ls	8.43"	36.1°	-25.7°	+26°07'
10	March	2008	247.14°W	1.6°N	42.90°Ls	8.36"	36.2°	-25.6°	+26°05'
11	March	2008	237.70°W	1.8°N	43.35°Ls	8.28"	36.3°	-25.4°	+26°04'
12	March	2008	228.26°W	2.0°N	43.80°Ls	8.21"	36.4°	-25.2°	+26°02'
13	March	2008	218.81°W	2.1°N	44.24°Ls	8.14"	36.5°	-25.0°	+26°01'
14	March	2008	209.36°W	2.3°N	44.69°Ls	8.07"	36.5°	-24.8°	+25°59'
15	March	2008	199.90°W	2.5°N	45.13°Ls	8.00"	36.6°	-24.6°	+25°58'
16	March	2008	190.44°W	2.7°N	45.58°Ls	7.94"	36.7°	-24.4°	+25°56'
17	March	2008	180.98°W	2.9°N	46.02°Ls	7.87"	36.7°	-24.2°	+25°54'
18	March	2008	171.51°W	3.1°N	46.47°Ls	7.81"	36.8°	-24.0°	+25°52'
19	March	2008	162.03°W	3.3°N	46.91°Ls	7.74"	36.8°	-23.8°	+25°50'
20	March	2008	152.56°W	3.4°N	47.36°Ls	7.68"	36.9°	-23.6°	+25°48'
21	March	2008	143.07°W	3.6°N	47.80°Ls	7.62"	36.9°	-23.4°	+25°46'
22	March	2008	133.59°W	3.8°N	48.25°Ls	7.56"	37.0°	-23.1°	+25°44'
23	March	2008	124.10°W	4.0°N	48.69°Ls	7.50"	37.0°	-22.9°	+25°42'
24	March	2008	114.60°W	4.2°N	49.13°Ls	7.44"	37.0°	-22.7°	+25°39'
25	March	2008	105.10°W	4.4°N	49.58°Ls	7.39"	37.1°	-22.5°	+25°37'

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Date	e (00:00GM	ıπ) ω	φ	λ	δ	ι	П	D	
	March 200		°W 4.6°N	50.02°Ls	7.33"	37.1°	-22.2°	+25°34'	
27 N	March 200	086.10	°W 4.8°N	50.46°Ls	7.27"	37.1°	-22.0°	+25°32'	
	March 200			50.90°Ls	7.22"	37.1°	-21.8°	+25°29'	
	March 200			51.34°Ls	7.16"	37.1°	-21.5°	+25°26'	
	March 200			51.78°Ls	7.11"	37.1°	-21.3°	+25°23'	
31 N	March 200	048.04	°W 5.7°N	52.22°Ls	7.05"	37.1°	-21.1°	+25°20'	
01 A	April 200	038.51	°W 5.9°N	52.66°Ls	7.00"	37.1°	-20.8°	+25°17'	
	April 200				6.95"	37.1°	-20.6°	+25°14'	
	April 200				6.90"	37.1°	-20.3°	+25°11'	
	April 200			53.99°Ls	6.85"	37.1°	-20.1°	+25°08'	
	April 200			54.43°Ls	6.80"	37.1°	-19.8°	+25°04'	
06 A	April 200	350.84	°W 6.9°N	54.87°Ls	6.76"	37.1°	-19.5°	+25°00'	
	April 200			55.31°Ls	6.71"	37.0°	-19.3°	+24°57'	
	April 200				6.66"	37.0°	-19.0°	+24°53'	
	April 200			56.19°Ls	6.62"	37.0°	-18.7°	+24°49'	
	April 200			56.63°Ls	6.57"	36.9°	-18.4°	+24°45'	
11 A	April 200	08 303.09	°W 8.0°N	57.06°Ls	6.53"	36.9°	-18.2°	+24°41'	
	April 200	08 293.54	°W 8.2°N	57.50°Ls	6.48"	36.8°	-17.9°	+24°37'	
	April 200			57.94°Ls	6.44"	36.8°	-17.6°	+24°32'	
	April 200			58.38°Ls	6.40"	36.7°	-17.3°	+24°28'	
	April 200			58.82°Ls	6.35"	36.7°	-17.1°	+24°23'	
16 A	April 200	08 255.27	°W 9.1°N	59.26°Ls	6.31"	36.6°	-16.8°	+24°19'	
	April 200	08 245.70	°W 9.3°N	59.70°Ls	6.27"	36.6°	-16.5°	+24°14'	
	April 200	08 236.12	°W 9.5°N	60.14°Ls	6.23"	36.5°	-16.2°	+24°09'	
	April 200			60.57°Ls	6.19"	36.5°	-15.9°	+24°04'	
	April 200	08 216.96	°W 9.9°N	61.01°Ls	6.15"	36.4°	-15.6°	+23°59'	
21 A	April 200	08 207.38	°W 10.2°N	61.45°Ls	6.11"	36.4°	-15.3°	+23°53'	
	April 200	08 197.79	°W 10.4°N	61.89°Ls	6.08"	36.3°	-15.0°	+23°48'	
	April 200	08 188.20	°W 10.6°N	62.32°Ls	6.04"	36.3°	-14.7°	+23°42'	
	April 200	08 178.61	°W 10.8°N	62.76°Ls	6.00"	36.2°	-14.4°	+23°37'	
	April 200			63.20°Ls	5.97"	36.1°	-14.1°	+23°31'	
26 A	April 200	08 159.42	°W 11.3°N	63.64°Ls	5.93"	36.1°	-13.8°	+23°25'	
	April 200	149.82	°W 11.5°N	64.07°Ls	5.90"	36.0°	-13.5°	+23°19'	
	April 200	08 140.21	°W 11.7°N	64.51°Ls	5.86"	35.9°	-13.2°	+23°13'	
	April 200			64.95°Ls	5.83"	35.8°	-12.9°	+23°07'	
	April 200			65.39°Ls	5.80"	35.8°	-12.5°	+23°00'	
	シー・	エム・オ	ー・フクイ				中島:	孝 Ni ——	

★前回報告以降、**永井 靖二**様(400)、**岩 崎 徹**様(401)、**成 田 広**様(402)よりカンパを 頂戴しました。有難うございました。不一

☆ Kasej-Tsûshin GMO (Home Page: http://www.mars.dti.ne.jp/~cmo/oaa_mars.html)

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