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OAA Mars Section

AS a sequel to the preceding review of the *Noachis Dust Storm* in #04 (special issue), we here deal with the trend of the Storm during the succeeding fortnight period

from 1 July (λ=268°Ls) to 15 July (λ=277°Ls)

The southern hemisphere attained the summer solstice on 4 July. During this period the apparent diameter just grew from δ=6.3" to 6.7", and the central longitude went down from φ=19°S to 15°S. The phase angle increased from ι=41° to 43°. The apparent declination of the planet ♁ on 15 July was ♁ =15°N, and the altitude was rather high at dawn seen from the Northern Hemisphere. The planet looks to shine quite brighter now in the morning sky for the present tiny diameter, perhaps because of the bright overall dust covering on the Martian globe.

In Japan Okinawa enjoyed the summer days while the Japanese main land was still suffering from the rainy season. On Friday 13 July, a big Typhoon attacked Okinawa and then passed along the south coast of the main land. In Europe we heard the weather had been unstable but at the latter part of the present period several excellent images were obtained and contributed to us. In the US the observations complimentarily continued to be well performed. In California the weather has looked ideal for the observations, and Ed LOMELI (*ELm*) at Sacramento kept on shooting for 11 days continuously from 26 June to 6 July without a halt.

♂……前回ノアキス黄雲が發生したため増刊號を出し、六月後半のレヴューを行った爲、今回は七月前半、1Julyから15July迄を概觀する。季節はλ=268°Lsから277°Lsを推移した。火星は4Julyから5Julyに掛けて南半球の夏至を迎えた。視直徑はこの間δ=6.3"から6.7"に延びた。中央緯度はφ=19°Sから15°Sに落ちている。位相角ιは41°から43°となり欠けは大きくなっている。火星の視赤緯♁は15Julyで15°Nで、北半球からは日の出時には相當高くなる。尚、朝輝く火星は視直徑の割には可成り明るいと思う。黄雲が覆っている所爲であろう。

日本は沖縄を除き本土では雨期で觀測が思うようにならない。13日の金曜日には大型颱風(四號)が沖縄本島を通り、その後太平洋岸を北進した。歐羅巴も天氣が不安定な様である。それでも今期後半好い觀測が揃った。美國は順調である。カリフォルニアのロメリ(ELm)氏は26Juneから6Julyまで十一日間も連續して觀測しているのは注目される。最高氣温38°Cにもなる眞夏日があるそうである。

♂……The observations we received this time are as follows: 今回の觀測報告は次の如くである。

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

2 Sets of *RGB* + 4 *IR* CCD Images (3, 12, 15 July 2007) *f*/30⊗30cm spec with a SKYnix 2-0M

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

1 *Colour* + 5 *IR* CCD Images (8 July 2007) *f*/33⊗28cm SCT with a DMK21AF04AS

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

1 *Colour* CCD Image (11 July 2007) *f*/25⊗25cm spec with a ToUcam Pro

BIVER, Nicolas ニコラ・ビヴェール (*NBv*) 凡爾賽 Versailles, Yvelines, France

1 *Colour* Drawing and 1 *Colour* CCD Image# (14 July 2007)
507×26cm speculum / #41cm Dobsonian with a Powershot Digital Camera

BOSMAN, Richard リシャルト・ボズマン (*RBs*) 尼德蘭 Enschede, Nederland

1 Set of CCD Images (8 July 2007) *f*/50⊗28cm SCT with an ATK-2HS

DICKINSON, William H ビル・ディキンソン (*WDc*) 維吉尼亞 Glen Allen, VA, USA

1 *Colour* CCD Image (7 July 2007) 20cm SCT with a SPC900NC

GERSTHEIMER, Ralf ラルフ・ゲルシュトハイマー(*RGh*) 德國Habichitswald, Deutchland

2 *IR* CCD Images (14, 15 July 2007) 32cm Spec with a DMK21AF04,

GHOMIZADEH, Sadegh サデグ・ゴミザデ (*SGh*) 伊朗 Teheran, Iran

2 *Colour* CCD Images (13, 14 July 2007) 28cm SCT (⊗ 2×, 3× Barlow)with a ToUcam Pro III

GORCZYNSKY, Peter ピート・ゴルチンスキー (*PGc*) 康涅狄格 Oxford, CT, USA

10 *Colour* + 1 *B* + 9 *IR* CCD Images (2, 3, 8, 10, 13, 15 July 2007)
f/42⊗18cm Maksutov-Casssgrain with a ToUcam

HEFFNER, Robert ロバート・ヘフナー (*RHf*) 名古屋 Nagoya, Aichi, Japan

1 *Colour* +3 *IR* CCD Images (5, 7, 15 July 2007) 28cm SCT with a DMK21AF04

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

13 *Colour* CCD Images (1, 2, 4, 6, 7, 9, 11 July 2007) 25cm *F*6.7 spec with a ToUcam

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

1 *Colour* CCD Image (8 July 2007) *f*/36⊗28cm SCT with with a SKYnix2-0

LOMELI, Ed エド・ロメリ (*ELm*) 加利福尼亞 Sacramento, CA, USA

5 *Colour* + 1 *RGB* Set + 10 *IR* CCD Images (1,~ 6, 8, 14 July 2007)
23cm SCT (⊗Tele Vue 5× Powermate) with DBK21AF04 & DMK21BF04 & DFK21AF04

MAKSYMOWICZ, Stanislas スタニスラス・マクシモヴィッチ (*SMk*) 法國 Ecquevilly, France

3 Set of Drawings (9, 14*, 15** July 2007) 245×16cm Spec, 270×10cm refractor*, 270×20cm Cass**

MELKA, James T ジム・メルカ (*JMl*) St.Louis, MO, USA

6 *Colour* CCD Images (2, 4, 6,~8, 14 July 2007) *f*/56, 65⊗30cm Spec with a ToUcam 840

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

10 Drawings (3，6，7，8 July 2007) 350, 400, 600×20cm Goto 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

1 *R* + 1 *IR* CCD Images (4 July 2007) 25cm spec with a Lu075M

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

2 Drawings (7 July 2007) 350, 400×20cm Goto ED refractor*
* Fukui City Observatory 福井市自然史博物館屋上天文臺

PARKER, Donald C ドン・パーカー (*DPk*) 佛羅里達·邁阿密 Miami, FL, USA

1 Set of *RGB* + 2 *Colour* + 1 *B* CCD Images (11, 13 July 2007)
f/47⊗41cm *F*/6 spec with a SKYnix 2-0M

PEACH, Damian A デミアン・ピーチ (*DPc*) 英國 Loudwater, Buckinghamshire, UK

2 *RGB* +2 *R* + 1 *C* CCD Images (8, 9 July 2007) *f*/40⊗35cm SCT with a SKYnix 2-0M

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

1 Set of *RGB* + 1 *IR* CCD Images (14 July 2007) *f*/51⊗25cm Cassegrain with SKYnix 2-0M

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

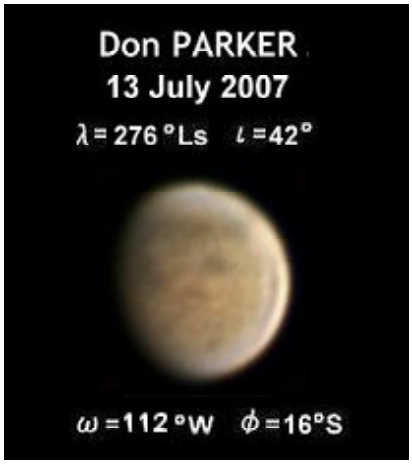
1 *RGB* Image (7 July 2007) *f*/40⊗36cm SCT with Lu075M

WALKER, Sean ショーン・ウォーカー (*SWk*) 新罕布夏 Chester, NH, USA
1 *RGB* CCD Image (14 July 2007) 32cm Spec
WARREN, Joel ジョエル・ウォーレン (*JWn*) 德克薩斯 Amarillo, TX, USA
1 *RGB* CCD Image (1 July 2007) 20cm SCT (⊗ 3× Barlow) with ToUcam Pro

Noachis Dust Storm II - The dust streak which was entrained circa on 24 June (λ=263°Ls~264°Ls) was reproduced every morning from Noachis to Argyre at a low altitude, but around 27 June (λ=266°Ls), as shown by OWENS (*LOw*) at ω=271°W, by MELKA (*JMl*) at ω=280°W, and by LOMELI (*ELm*) at ω=316°W ~322°W, the lower dust oozed out from the junction of Syrtis Mj and M Serpentis to the northern hemi-sphere. At around the time the dust looked to begin to go up to the higher sky from the southern hemi-sphere as well as the northern district. By 29 June (λ=267°Ls), as shown by MORITA (*Mo*)'s work at ω=030°W~042°W, the airborne dust covered the whole of the westward hemi-sphere showing some of resonant dust cores at the lower atmosphere. Unfortunately however, as the new month of July came in, the data from Japan and Europe were scarce, we could not grasp the westward expansion. On the other hand the observations from the US side were so rich that the aspect at the eastern side was well captured. On **1 July (λ=268°Ls)**, WARREN (*JWn*) produced images at ω=241°W and *ELm* at ω=271°W, 276°W, 282°W & 286°W. Syrtis Mj was blurred but distinct and M Hadriacum was also apparent. From Ausonia to Hellas a thick airborne dust is seen without cores and the inside of Hellas looks to be full of dust. From Japan, HIGA (*Hg*) at Okinawa observed the wet side at ω=355°W, 005°W, 015°W & 025°W. These images must be shot in a sense of the naked eyes: A thick dust cloud is at the morning side, and Margaritifer S is traced no more than a faint marking, while no afterimage of Meridiani S. Since no image show the spc, the dust over the spc has become thicker compared with the day before. On **2 July (λ=269°Ls)**, in the US, GORCZYNSKY (*PGc*) took at ω=216°W, *JMk* at ω=241°W, and *ELm* at ω=260°W, 265°W, 273°W & 278°W: Hellas looks bright even if moving to the inside of the disk, The northern Ausonia (Trinacria) looks dark while the southern Ausonia dusty. From our side *Hg* took at ω=357°W, 002°W & 007°W. Margaritifer S is still a shadow, while its preceding area looks brushed out by dust. Argyre roundish light. The npc may be slightly light. On **3 July (λ=264°Ls)**, *PGc* shot at ω=198°W~212°W, and *ELm* at ω=244°W, 257°W, 262°W, and ALLEN (*EAl*) at ω=257°W, 262°W(RRGB) & 269°W: The angles of *PGc* do not show Syrtis Mj yet, and it shows M Tyrrhenum dark. The images by the latter two observers at California show well Syrtis Mj: M Hadriacum is definite, and Hellas is quite roundish. In the longer wavelengths the optical depth of the airborne dust is shallow. In Japan, the present writer (*Mn*) made visual observations under unfavourable conditions only at ω=333°W: The dust band from Hellas to Noachis was seen while Depressiones Hellesponticæ was visible. He could not trap S Sabæus while Margaritifer S shows abit. On **4 July (λ=270°Ls)**, southern summer solstice, on the Martian eastern side, *JMl* observed at ω=222°W, and *ELm* at ω=242°W, 254°W & 259°W: Hellas was shown in a high relief at the morning side. A dark band at the circumpolar region was also seen. M Cimmerium is definite. On the Martian eastern side, MORITA (*Mo*) at Hiroshima produced the images at ω=345°W (R, IR), 349°W (R), and *Hg* at Okinawa at ω=350°W, 355°W & 358°W. Different in IR and normal light, the circumpolar band, to the south of M Erythræum, looks quite shadowy. The eastern area of Margaritifer S looks now fainter. May be a dust near Meridiani S. On **5 July (λ=271°Ls)**, *ELm* observed at ω=233°W, 242°W & 245°W: The form of Hellas looks to have collapsed, and maybe a flow over Ausonia. On the Japanese side, HEFFNER (*RHf*) produced an IR image at ω=342°W, where the southern band (including Argyre) to the south of M Erythræum (itself very faint) is quite dark, and it seems a dust area may be present inside Margaritifer S, and so Meridiani S looks

faint and queer. A bright limb patch to the SW of Argyre. On **6 July (λ=271°Ls)**, in the US, *JMl* observed at ω= 188°W, and *ELm* at ω=231°W. On the former, it is now difficult to read the markings, and even M Cimmerium is not definite. On the latter, in the longer wavelengths, there is seen a cloud band on the continents in addition to the central dark band. In Japan, *Mn* observed visually and *Hg* took ccd images: At Fukui, *Mn* checked at ω=301°W, 311°W & 321°W, and *Hg* took the images at ω=318°W & 321°W. Syrtis Mj was weak and dull, and M Serpentis looked rather darker. Later the SW part of Noachis appeared shadowy, which was also seen on *Hg*'s images. On *Hg*'s images, the area of M Serpentis may be darkish. On **7 July (λ=272°Ls)**, the triangle observations from Europe, the US and Japan were made for the first time. On the day before the last observation was made at around 20h GMT, while TYLER (*DTy*) in England was able to produce an image at 04:01GMT on the present day at ω=085°W: This turned out very important and showed that though the western part of M Erythræum was shadowy, its west was quite dusty so that the ark markings such as Solis L were occulted by the dust, and furthermore it looked like the dust further was expanding to the west. The first image in the US was given by DICKINSON (*WDc*) at Virginia at 9:42 GMT (ω=168°W), and the resonant dust at the Solis L area seemed to creep up to Phæthontis-Electris. The junction of M Sirenum and M Cimmerium is largely shadowy. *JMl*'s image at ω=186°W (10:56 GMT) also shows the flow of the dust. *JMl*'s may also suggest two or three dust patches to the south of M Cimmerium. On the NH, Cerberus seems to still appear. (On the day unfortunately *ELm*'s image did not arrive.) On the Japanese side, NAKAJIMA (*Nj*) and *Mn* at Fukui observed from 18h GMT at ω=289°W ~ 304°W (visual), *Hg* at Okinawa at ω=303°W & 318°W (ToUcam), and finally *RHf* at ω=314°W (IR): The terminator side of the continent was brighter, but Hellas inside the disk was never bright. Syrtis Mj was dull and contrarily the area of M Serpentis quite darkish. On the images of *Hg*, M Serpentis looks to extend to Noachis. The IR image of *RHf*, the west side of Sabæus S is seen and its southern direction is dark. The IR may show the deepest layer of the dust to unearth the ground of Noachis. On **8 July (λ=272°Ls)**, four observers from Europe contributed: KINGSLEY (*BKn*) at ω=064°W, PEACH (*DPc*) at ω=066°W~072°W, BOSMAB (*RBs*) at ω=068°W, and ARDITTI (*DAr*) at ω=071°W~083°W. All show the area of Solis L and prove the dust violence around there as well as the expansion to the westward direction. Among them *DPc*'s images are very excellent: The resonant dust core over Solis L is quite apparent which is located at around (Ω=085°W~100°W, Φ=10°S~30°S), and hence it covers the central and northern parts of Solis L. The evening Erythræum M and Auroræ S are dark and strangely it extends to the westward and include the intrinsically brighter region between Ω=060°W~080°W(so between Nectar and Agathodæmon) so that even the bright Aurea Cherso is dark. This was quite akin to our experience we had in October 2005 at the same place (22 Oct, 23 October 2005, cf CMO #312). The sand was temporarily swirled up or the shadow of the high dust core must have been the origin since the phase angle was quite large (ι=42°)(in the case of October 2005, the phase angle was just ι=15° however). *DAr*'s IR images show that the following shadowy part is very dense. This time Ophir is ordinarily bright (maybe not so dusty). The spc must have been very apparent from these angles but none proves the presence. Apparently it was concealed by the dust. In the US, *PGc*, *JMk* and *ELm* contributed. *PGc* produced images at ω=156°W, 160°W, 166°W (IR block or IR pass), *JMl* at ω=178°W, and *ELm* at ω=201°W (set of RGB). (The US continent is very wide accommodating easily a width of 50°W.) The former two show that the elongation of the European dust came up to Phæthontis. The junction of M Sirenum and M Cimmerium is strangely shadowy. The later two show that a resonant dust looks to rise from the southern border of M Cimmerium to the SW direction crossing Hesperia. From *ELm*'s image we see its NE end may be located at (Ω=220°W~240°W, Φ=20°S). From the side of Japan, *Mn* observed at ω=282°W, 291°W, 301°W & 311°W,

and at the first two observations we might have caught a tail of the Hesperia dust. Hellas was however quite dull (maybe now the optical depth of the dust does not reflect the depth of Hellas), Syrtis Mj was also dull, and the area around M Serpentis was the most shadowy. On **9 July (λ=273°Ls)**, *DPc* shot at the same angles as the day before at ω=065°W~071°W, and showed the core was smaller but brighter. The dust which followed also showed a different configuration and the images show a southern- moved dusty band at the circumpolar region. The spc was still concealed. On the day MAKSYMOWICZ (*SMk*) visually observed at ω=049°W & 053°W, and seemed to notice the core near the morning limb, but grasping of the position must be poor. No image from the US. In Japan, *Hg* took a series at ω=288°W, 293°W, 298°W & 303°W: There is a shadowy area near M Serpentis, and it extends to Noachis. On **10 July (λ=274°Ls)**, *PGc* took at ω=124°W ~ 142°W: There is not any dust cores in particular (otherwise maybe at the morning limb at Eridania). On **11 July (λ=274°Ls)**, Don PARKER (*DPk*) met clear night first in weeks and first produced a set of Martian images this apparition at ω=126°W: The area of Solis L begins to set to the evening terminator, the area around Dædalia looks shadowy, and M Sirenum is cut in pieces. Furthermore to the west of the line Ω=170°W (Electris to Eridania), a bright dust patch is seen near the morning limb. BATES (*DBt*)'s at ω=140°W shows the Electris dust near the limb. *DPk*'s images also show Olympus Mons which was first shot in a brown colour so that this might have been mostly a shadow of the summit since the phase angle was large (another minor possibility is the case where the summit pops out of the lower dust sea). The spr is covered by a strange dust pall. There is one more important point on *DPk*'s image. It is the fact that its B image does not seem to show any white cloud at Arsia Mons which must have been common in this season otherwise, that is if the atmosphere is clear. If really it is the case it must be because the dust changed the behaviour of the water vapour in the atmosphere. We shall discuss again below (in *DPk*'s case on 13 July), but the deformation caused by the dust well already seems to suggest that the water vapour activity already ceased. *Hg* at Okinawa took at ω=268°W & 275°W: Even Syrtis Mj does not make its usual shape no longer and also Hellas does not show up in usual light. On **12 July (λ=275°Ls)**, *EAl* at California produced an IR image at ω=177°W where the dust from Electris to Eridania is quite evident near the CM. On **13 July (λ=275°Ls ~ 276°Ls)**, GHOMIZADEH (*SGh*) from Iran contributed. Teheran advances 3.5 hrs from Greenwich and so very advantageous to us. His image was at ω=335°W and hence it must have shown Noachis, but nothing except for some shadowy area at Margaritifer S and M Serpentis. In the US, *PGc* took at ω=098°W ~ 103°W, and *DPk* at ω=104°W (106°W), 112°W: The area of Solis L was indistinct near the terminator, while the Solis L dust looks weakened or dispersed. The details of *DPk*'s images at the CM show the queerness of the area of Dædalia. There is still a pall over the spr, but today a tip of the spc peeps out. The apparent Olympus Mons must be the one which was because of the lower dust at the flanks since it shows up even at ω=104°W. If the B image is provided, we may be interested in the presence or absence of the white cloud which was frequent at this season at Arsia Mons as suggested in the previous 11 July (compare with *CPl*'s images on 25 August 2005 at the same season λ=276°Ls as the present 13 July one: http://www.astrosurf.org/pellier/M050826-CPE where the white cloud is evident at Arsia Mons). If the dust brings a heat, the water vapocloud will not be distinct. (*Note added*: *DPk* kindly informed us later that he reprocessed the B image on 13 July as well as that on 11 July, but he could not reveal any presence of the Arsia cloud.) On **14 July (λ=276°Ls)**, from the European side, we received a lot of drawings and images: *SGh* at ω=325°W



(ccd), *SMk* at ω=356°W ~ 009°W (drawings), PELLIER (*CPl*) at ω=007°W (RGB), 010°W (IR), BIVER (*NBv*) at ω=009°W (drawing) and 018°W (ccd), and GERSTHEIMER (*RGh*) at ω=038°W (IR): The work by *CPl*, *NBv* (France) and *RGh* (Germany) was the first contribution this apparition. On *CPl*'s images it is apparent the dust was totally covers the whole disk but there is a shadowy marking from Auroræ S through the western part of M Erythræum further to SE direction and the region from Meridiani S to Margaritifer S is dusty (slightly different seen before from the Oriental side). The IR suggests a diffused dust core at S Meridiani as well as at Chryse. The spr looks now lighter. *NBv*'s drawing and ccd image show similar markings described by *CPl*. As he noted, contrast should not be as strong as on the drawing. In his drawing a bit of S Sabæus is visible. *RGh*'s image shows an important fact that there arose again a dust core at the northern part of Solis L. The preceding shadowy area looks to have weakened except for the area of Auroræ S. On the side of US, WALKER (*SWk*) observed at ω=091°W (LRGB), *JMl* at ω=111°W, *ELm* at ω=144°W, 148°W, 156°W & 162°W: The *SWk* image shows the dust earlier detected by *RGh*. On *JMl*'s image, we should be attentive to the area of Dædalia and we also see the dark band existing further south. The spc might be shining. Inside the disk Olympus Mons is spotted. *ELm*'s images show the junction between M Sirenum and M Cimmerium to be shadowy, and in IR the dusty band from Electris to westward. On **15 July (λ=277°Ls)**, *SMk* observed at ω=333°W, 337°W, *RGh* at ω=037°W, *PGc* at ω=076°W ~ 095°W, *EAl* at ω=133°W (RGB) & 154°W (IR), and *RHf* at ω=234°W: *SMk*'s drawings should have been more roughly drawn with a correct defect of illumination. *RGh*'s image was taken at the similar angle to the one on the preceding day, and it shows the preceding dust looks weakened. However this area is still active and should be on the alert. *PGc* looks to catch the dust core at Solis L near at the CM, which looks surrounded by a larger shadowy ring. *EAl*'s RGB image at ω=133°W is beautiful in showing the totally dusty Mars: The junction of M Sirenum and M Cimmerium looks shadowy, and the images also show another shadow near the circumpolar region. A tip of the spc is also seen. Maybe also a dusty band near Phæthontis and its west in IR. He also described Olympus Mons next to *DPk* and *JMl* near the terminator. We are anxious about the white cloud activity of Arsia Mons as described above, while *EAl*'s B image does not seem to show it (we are thankful to Ethan for his kind labour). Hence it is quite possible that the water vapour activity has ceased due to the dust attack by this period. Finally on *RHf*'s IR image, Syrtis Mj is seen near the morning limb, and M Tyrrhenum is dark. Hesperia is quite light, and the west end of M Cimmerium shows quite a detail. Possibly the optical depth around here is not yet so deep that IR light reach the ground. *RHf* needs the RGB images but he cannot afford at present because of the dismal weather condition at the central part of Japan (cf LtE).

Thus three weeks passed since the arrival of the Noachis dust storm. It already encircled, and it is also apparent it covered the whole globe though the density is not yet uniform. Such a furious dust swirling up to the spr as was detected in 1956 (as shown for example by W S FINSEN at Johannesburg) was not met this time, but more mildly it expanded in a global scale. It is perhaps because the dust was sent upward at quite an early stage, and prepared and invited several resonant dusts in a succession. And so at an early stage the dust proved to be a global one. This turned out to be at least different from the 1956 great dust storm in character, and so its subsiding mode will be different and visit later than the case of 1956. In 1956, the concealed spc reappeared bright within a fortnight circa on 2 September (λ=252°Ls) [started from 20 August 1956 (λ=246°Ls) and began to subside from around 10 September (λ=259°Ls)].

♂・・・・・・24June(λ=263°Ls~264°Ls)頃にノアキスで發生した黄塵は暫く低空でノアキスからアルギュレに掛けて毎朝再生産を繰り返したと思われるが、27June(λ=266°Ls)にはオーエンス(LOw)氏のω=271°Wやメルカ(JMl)氏のω=280°W、ロメリ(ELm)氏のω=316°W~322°Wの像のシュルティス・マイヨルとマレ

・セルペンティスの間から垣間見られるように黄雲が北半球にも波及しており、そろそろ高空へも昇って行ったと思われる。29June(λ=267°Ls)の森田(Mo)氏のω=030°W~042°Wでは明らかに全半球にわたって浮遊黄雲が覆った事は確實である。而もこの像では餘り明確ではないが低空では共鳴黄塵が見られると思われる。從ってこの頃から大域的な黄雲の豫兆がハッキリしたと同時に西側に向かって中心は移って行ったのではないかと思われる。然し殘念ながら七月に入って東洋と歐羅巴の觀測がうまく揃わない爲に西側への發展はよく摑めていない。一方、アメリカの觀測は快調で東側の状況は好く把握された。**1July(λ=268°Ls)**には美國側でウォーレン(JWn)氏がω=241°W、ロメリ(ELm)氏がω=271°W、276°W、282°W、286°Wで撮った。シュルティス・マイヨルもボンヤリとなっているがマレ・ハドリアクムが案外見える。アウソニアからヘッラスには浮遊黄塵が強く見えるがコアは無いようである。但しヘッラス内には立っている可能性がある。日本からは沖縄の比嘉(Hg)氏が像を寄せてω=355°W、005°W、015°W、025°Wでの像は肉眼感覚の良像ではないかと思う。朝方は黄雲が強い模様。マルガリティフェル・シヌス邊りに陰翳が出ているが、シヌス・メリディアニは見えないように思う。尚、南極冠は上のどれにも出ていないのでこの日前日に比べ南極の黄雲は強くなったかと思われる。**2July(λ=269°Ls)**には美國でゴルティンスキー(PGc)氏がω=216°W、メルカ(JMk)氏がω=241°W、ELm氏がω=260°W、265°W、273°W、278°Wで撮像した。ヘッラス内が中に入っても明るいようだが、北アウソニア(トリナクリア)が暗くなって、南アウソニアが明るいようである。こちら側ではHg氏がω=357°W、002°W、007°Wで撮像した。マルガリティフェル・シヌス邊りの陰翳が依然見える。その前方には黄塵の流れがあるか。亦アルギュレが稍明るい。南極冠は少し回復したかも知れない。**3July(λ=264°Ls)**にはPGc氏がω=198°W~212°W、ELm氏がω=244°W、257°W、262°W、アッレン(EAl)氏がω=257°W、262°W(RRGB)、269°Wで撮像した。PGc氏はシュルティス・マイヨル登場前で、マレ・テュッレヌムの暗帯などが見え、カリフォルニアの後者二者ではシュルティス・マイヨルが見えている。マレ・ハドリアクムも明確でヘッラスは圓く明るい。R系での像で、まだ黄雲の"光學的深さ"は淺いと思う。日本ではMnの悪條件下でのω=333°Wの眼視觀測がある。ヘッラスからノアキスに掛けては可成りの雲の帶があるが、デプレッシオネス・ヘッレスポンチカエがやや見えている。シヌス・サバエウスなどは見えないがマルガリティフェル・シヌスがやや陰翳を持つ。**4July(λ=270°Ls)**には南半球の夏至である。南半球は最高に日射を受ける。この日、美國側ではJMl氏がω=222°W、ELm氏がω=242°W、254°W、259°Wで撮像した。ヘッラスが朝方で明るく好く縁取られている。南極域の暗帯も見えている。マレ・キムメリウムも見えている。日本側では森田(Mo)氏がω=345°W(R,IR)、349°W (R)、Hg氏がω=350°W、355°W、358°Wで撮った。IR光と普通光ではやや違うが、南極域が稍明るく、マレ・エリュトゥラエウムの南の帶蔭が囲んでいろ。暗色模様はマルガリティフェル・シヌス西部から南東へ流れているが弱くなったように見える。シヌス・メリディアニ邊りには黄塵が立っているかも知れない。明らかにこちらの方が黄雲が強い。アルギュレはテカっている。**5July(λ=271°Ls)**にはELm氏がω=233°W、242°W、245°Wで撮った。ヘッラスの形が崩れてアウソニアの方にも黄塵が立っているかも知れない。日本側からは、ヘフナー(RHf)氏がIRでω=342°Wを撮った。マルガリティフェル・シヌス内に黄塵があるようで、シヌス・メリディアニの邊りは奇妙である。マレ・エリュトゥラエウムの南方、アルギュレを含む東西帶が矢鱈暗く、アルギュレ南西部の縁には明部がある。**6July(λ=271°Ls)**の美國側ではJMl氏のω=188°W、ELm氏のω=231°Wがある。前者では相當讀み辛くなっていて、マレ・キムメリウムも定かではない。南極は白い。後者ではR系で暗帶はやや見えるが、大陸が黄雲で明るくなっている。日本側ではMnの眼視觀測とHg氏の撮像がある。福井ではω=301°W、311°W、321°Wと觀測し、Hg氏の像はω=318°W、321°Wで得られている。シュルティス・マイヨルは弱く、マレ・セルペンティスが寧ろ見える。後半ノアキス南部に陰翳が見え出したが、これはHg氏の畫像にも出ている。Hg氏の畫像でもマレ・セルペンティスがやや杳いか。**7July(λ=272°Ls)**には初めて歐羅巴、美國、日本の觀測が揃った。前日の日本の觀測は20hGMT過ぎ迄で、この日の最初の英國のタイラー(DTy)氏

の観測は04:01GMTで可成りの差があるが、ω=085°Wでソリス・ラクスの邊りが見えている。明らかにマレ・エリュトゥラエウムの西部は陰翳となっているが、ソリス・ラクスの領域には強い共鳴黄雲が立ってソリス・ラクスは消失し、強い黄雲は更に西に向かっている。美國での最初の像はヴァージニアのディッキンソン(WDc)の像で9:42GMTω=168°Wである。共鳴黄雲はパエトンティスからエレクトリスまで達していることを示している。マレ・シレヌムとマレ・キムメリウムの接合部分は矢張り大きな陰翳である。JMl氏のω=186°Wにも黄雲の流れは出ている。マレ・キムメリウムの南に黄塵が二つほどあるかも知れない。北ではケルベルスが未だ見えるようだ。(この日ELm氏の連續觀測は途絶えた。)日本側では、福井で中島(Nj)氏とMnが18hGMTからω=289°W~304°W(眼視)、Hg氏がω=303°W、318°W(普通光)、RHf氏がω=314°W(IR)で觀測した。大陸の縁は稍明るいが、ヘッラスは肉眼では然程明るくない。シュルティス・マイヨルもぼやけていてマレ・セルペンティスが盛り上がっているようである。南極域が稍明るい。Hg氏の畫像ではややマレ・セルペンティスが西に張り出したように見える。RHf氏のIR像ではシヌス・サバエウスの東部が見え、そこからノアキス一帯が杳い。黄雲の深いところを寫してノアキスの模様を出しているのかも知れない。**8July(λ=272°Ls)**には歐羅巴から四點届いた。キングスリー(BKn)氏のω=064°W、ピーチ(DPc)氏のω=066°W~072°W、ボズマン(RBs)氏のω=068°W、アーディッチ(DAr)氏のω=071°W~083°Wで、すべてソリス・ラクス領域を含んで、西側に濃い黄雲の擴がりが寫し込まれている。特にDPc氏の畫像は秀逸で、その中にコアがあって、その位置が(Ω=085°W~100°W、Φ=10°S~30°S)にあることを示している。從ってソリス・ラクスの中央から北部にあることになる。夕方のマレ・エリュトゥラエウム、アウロラエ・シヌスの方は可成り暗く、これは六月の終わりの感じと同じだが、奇妙なのはそれがアウロラエ・シヌスが延長して本來明るい筈のΩ=060°W~080°W(ネクタルとアガトダエモンに囲まれる處で、アウレア・ケルソも含む)も暗くなっていることである。これは2005年十月黄雲の時も經驗したことである(22Oct、23Oct2005、CMO#312參照)。砂を巻き上げた結果と考えたが、2005年には案外ケロリと元に戻った。今回は位相角が大きいから蔭が出來ているとも考えられるが、Oct2005の時はι=15°でコアが相當高くなくては考えられなかった。今回もオピールは通常に明るい。この邊りはDAr氏のIR像でも明らかで、コアから西南に黄雲が流れているような感じも出ている。尚、南極冠は一番見えるところであるが、明らかに黄雲に隠れている。美國に渡って、PGc、JMk、ELm氏の三名から報告があった。PGc氏ω=156°W、160°W、166°W(IRパスとIRブロックとを分ける)、JMl氏ω=178°W、ELm氏ω=201°W(三色セット)。50°W幅も取れるのは美國大陸が廣いからである。前二者には歐羅巴の黄雲がパエトンティスまで來ているように見える。マレ・シレヌムとマレ・キムメリウムとの結合部分が濃いか。後二者ではマレ・キムメリウムの南側から黄塵が立っている。ELm氏の像からは(Ω=220°W~240°W、Φ=20°S)邊りから南西にヘスペリアを横切って走っている。これも共鳴黄塵であろう。この日、日本からは筆者(Mn)がω=282°W、291°W、301°W、311°Wと觀測した。前二者ではマレ・キムメリウムのコアの尻尾を捉まえていると思う。然しヘッラスは實に鈍く(黄雲の厚みがヘッラスの深さを反映しないか)、黄雲でシュルティス・マイヨルもボンヤリで、寧ろこの日はマレ・セルペンティスの辺りが最も濃く出ていた。**9July(λ= 273°Ls)**にはDPcが前日と同じ角度ω=065°W~071°Wで矢張り良像を撮り、コアが少し小さく然し明るく再現しているのを示した。續く黄雲の領域や濃度にも異同があって下の模様が出たところもあるが、南の方には新しい帯が出來ている。南極冠はこの日も見えない。この日はマクシモヴィッチ(SMk)氏がω=049°W、053°Wで眼視觀測していて、コアの出るところを見ているようだが、位置取りが悪く、また先入觀が邪魔しているようである。日本ではHg氏がω=288°W、293°W、298°W、303°Wと刻んでいる。マレ・セルペンティスの邊りに陰影があり、ノアキスの方にも波及している。**10July(λ=274°Ls)**にはPGc氏がω=124°W~142°WでIRパスとIRブロックで交互に撮っているが、特別コアがあるようには見えない(強いて言えば朝方のエリダニアか)。**11July(λ=274°Ls)**には大御所の唐那･派克(DPk)氏がフロリダは數週間振りの晴れ間とかで初めて火星を撮った。ω=126°Wで、ソリス・ラクスの邊りは沈んで見えないが、

ダエダリア周邊が妙に暗く、マレ・シレヌムは切れ切れになっている。そしてΩ=170°W以西、朝方のエレクトリスからエリダニア辺りには明るいコアが出ている。濃い共鳴黄塵であろう。この日のベーツ(DBt)氏のω=140°Wにもエレクトス黄塵は出ていると思う。DPk氏の畫像には他にオリュムプス・モンスが茶色の斑點として出ている。今期初めてである。頂上が浮遊黄塵の上に出ているとも考えられるがιが大きいので未だ蔭が出ているのであろうと思われる。これはこの時期特有である。南極域は何か大きな瘡蓋(かさぶた)が懸かった様に見える。尚、もう一つ重要な點があって、それはB光にアルシア・モンスの白雲が出ていないと見られることである(これは分解能に關わるから難しいところである。反例の方が易しい)。これは後でもう一度13Julyの項で議論したいが、この時期には通常は白雲がこの角度では出ている筈である。出ていないとすれば大氣内の水蒸氣が黄雲によって活動を既に停止したと考えて好い。模様の變化からこの邊りの黄雲の活動は充分激しいと思われる。沖縄のHg氏はω=268°W、275°Wで撮像、最早シュルティス・マイヨルと雖も形を成さない。ヘッラスも見分けがつかない。**12July (λ=275°Ls)**にはEAl氏のω=177°WのIR像がある。エレクトリスからエリダニアに掛けての黄塵の帶が中央で明確に描寫された。**13July(λ=275°Ls~276°Ls)**にはイランのゴミサデ(SGh)氏の投稿があった。テヘランはグリニッヂより3.5時間進んでいる。ω=335°Wでノアキスだが、マレ・セルペンティスの邊りの陰翳とマルガリティフェル・シヌスに少し出ているかといったところである。美國ではPGc氏のω=098°W~103°W、DPk氏のω=104°W(106°W)、112°Wがある。ソリス・ラクス周邊は一寸不鮮明だが、邊りの黄塵は弱まったか擴散している様に見える。DPk氏の像は中央では詳細で、ダエダリアの邊りが妙である。南極冠の瘡蓋は未だ見えるが、南極冠が覗いている。オリュムプス・モンスはω=104°Wでも暗點なので、これは裾野の黄雲に據るかも知れない。尚、B像がないので判らないが、2005年の同じ季節、26Aug2005ではアルシアの白雲が夕方には出ていたのであるが(もしB光があれば26Aug05(λ=276°Ls)のCPl氏の畫像:http://www.astrosurf.org/pellier/M050826-CPE と比較できる)。どうであろうか、今年は黄雲で暖まってもう出ていないか、どうか。(追記：後日DPk氏からの聯絡に依ると、B畫像の處理をやり直したが、顕れていない様である。從って、大氣の水蒸氣活動が停止していると考えた方が好さそうである。) **14July(λ=276°Ls)**には、歐羅巴側から、SGh氏のω=325°W、SMk氏のω=356°W~009°W、ペリエ(CPl)氏のω=007°W(RGB)、010°W(IR)、ビヴェール(NBv)氏のω=009°Wのスケッチ、018°Wのccd像、ゲルシュトハイマー(RGh)氏のω=038°W(IR)が寄せられた。CPl氏とNBv氏は今期初めてで、CPl氏の畫像にはアウロラエ・シヌスからマレ・エリュトゥラエウムの西部、更にその西南の方に陰翳があるが、マルガリティフェル･シヌスやシヌス・メリディアニ邊りはトンでいる。IRではクリュセとシヌス・メリディアニの邊りに黄塵があるかも知れない。南極は明るい。NBv氏のスケッチでは陰翳が濃く描かれ(過ぎて)いる。シヌス・サバエウスは少し見えるようだが、シヌス・メリディアニは見えていない。RGh氏の畫像ではソリス・ラクス北部で再び黄塵が出ているのが確認出來る。アウロラエ・シヌス邊り以外は陰翳も強くなくなった。美國側ではウォーカー(SWk)氏がω=091°W(LRGB)、JMl氏がω=111°W、ELm氏がω=144°W、148°W、156°W、162°Wで撮像し、SWk氏の畫像(LRGB)にはRGh氏のソリス・ラクスの黄塵が見えている。JMl氏の像ではダエダリアの邊りが注目點で、更に南の暗帶は目立つ。南極冠が出ているか。オリュムプス・モンスが朝方に出ているようだ。ELm氏の像ではマレ・シレヌムとマレ・キムメリウムの接合點が陰翳で、R系ではエレクトリスから西へ黄雲帶が延びている。**15July(λ=277°Ls)**にはSMk氏がω=333°W、337°W、RGh氏がω=037°W、PGc氏がω=076°W~095°W、EAl氏がω=133°W(RGB)、154°W(IR)、RHf氏がω=234°Wで觀測した。SMk氏(スケッチ)は一寸細かすぎる上、欠けの方向などが悪い。RGh氏の畫像は昨日の角度と殆ど同じだが、黄塵コアはやや弱く見えている。然し、この邊りは依然注目點である。PGc氏は中央でソリス・ラクス周邊に至っていて、ソリス・ラクスには矢張り黄塵コアが漂っているようである。囲んで陰翳が見える。EAl氏のω=133°WのRGB像はほど好く、既にソリス・ラクス周邊は陰翳のみだが、マレ・シレヌムとマレ・キムメリウムの接合部に陰翳がある。南極域は暗帶に囲まれ、南極冠も黄雲の中で出て

いる模様。IRにはパエトンティス邊りに黄雲の筋があるかも知れない。オリュムプス・モンスが茶色で見えているが、DPk氏、JMl氏に次いでの描寫である。もう一つアルシア・モンスの山岳雲の振る舞いであるが、(後で提出を受けた)Bには感じられない。分解能の問題もあるが、13Julyからの懸念のように黄雲に爲に既に水蒸氣活動が停止してしまった可能性が高い。最後に吾が方からのRHf氏の像はIRでシュルティス・マイヨルが朝方、マレ・テュッレヌムが濃く、ヘッラスが朝方で明るい。ヘスペリアが切れ上がっていて黄雲のようにも受け取れる。マレ・キムメリウムの西北部は可成り詳細が出ている。未だこの邊りはIRが可成り深く入るということであろうか。RGBが欲しいところであるが、空が許さずRHf氏は苦闘しているようである(LtE参照)。

これでノアキス黄雲發生以來三週間經った譯で、當然encircleしているだけでなく、全球を黄雲が濃淡は別にして覆っていることは間違いない。1956年のノアキス黄雲に、南阿のフィンセンが示した猛烈な渦巻き型の南極冠を襲う黄雲には今回は出會(でくわ)さず、穏やかな覆いであったが(1956年も南極冠が隠れたのは暫くで、二週間未満2Sept(λ=252°Ls)には南極冠が現れた)、今回は黄雲が高空に早くから昇って早い段階でグローバルな黄雲であることを示した。その所爲で衰退期に入るのは1956年の黄雲よりは遅くなると思われる。

♂‥‥‥ **WE FURTHER RECEIVED** the folloing work: **追加報告:** 次のように追加報告を受けている。

GERSTHEIMER, Ralf ラルフ・ゲルシュトハイマー(*RGh*)德國Habichitswald, Deutchland
1 *IR* CCD Images (19 June 2007) 32cm Spec with a DMK21AF04,

GORCZYNSKY, Peter ピート・ゴルチンスキー (*PGc*) 康涅狄格 Oxford, CT, USA
12 *Colour* + 1 *G* + 1 *B* + 10 *IR* CCD Images (30 May 19, 21, 23, 24, 27, 30 June 2007)
f/42⊗18cm Maksutov-Casssgrain with a ToUcam

MOORE, David M デイヴィッド・ムーア (*DMr*) 亞利桑那 Phœnix, AZ, USA
1 *R* CCD Image (27 June 2007) *f*/30⊗36cm Cass with DMK21AF04

RGh's image on 19 June at ω=316°W shows clearly (as well as *PGc*'s images on 19 June, 21 June, 23 June at ω=310°W et al) Noachis before the dust storm entrained. *DMr*'s image on 27 June was one obtained just after the onset.

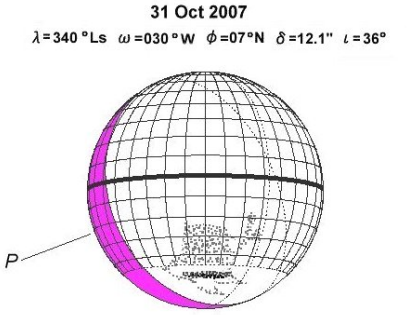
♂‥‥‥In the next issue we shall review the observations made during a one-month period from 16 July 2007 (λ=277°Ls, δ=6.7") to 15 August 2007 (λ=296°Ls, δ=7.5"). On 15 August the apparent declination D will attain D=20.25°N **南 政次・村上 昌己 M MINAMI & M MURAKAMI**

Forthcoming 2007/2008 Mars (10)

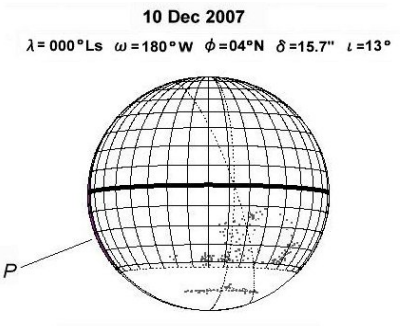
The Vanishing NPH and the Perimeter of the NPC. II
末期の北極雲と北極冠の境界 (そのII)

Masatsugu MINAMI & Masami MURAKAMI **南 政次**(*Mn*)・**村上 昌己** (*Mk*)

As described in CMO #329, Forthcoming (5), it is interesting to watch the vanishing north polar hood (nph): Sometimes some markings or the perimeter of the north polar cap (npc) can be witnessed seen through the weakened nph. Here as a sequel of the article in #329, we exemplify two cases which can probably be seen at the end of this year. One is to aim watching the Dawes slit at the same season as DAWES himself detected it in 1864. The season was between λ=330°Ls and 340°Ls, and so the period from 15 October to 31 October 2007 must be appropriate. The central latitude is from φ=6°N to 7°N, and so not so bad. We here show a figure with grids: It is expected the boundary of the nph will be around 45°N (according to the BAUM-DOLLFUS diagram cited in CMO #109 (25 Sept 1991) p0944). Table I gives the date and time when the centre of M Acidalium passes the CM.



The second case is to watch the thin



nph and the perimeter of the npc from the angle at around ω=180°W at the northern spring equinox. Here Panchaia must be covered by the npc, while the perimeter (maybe Gyndes) can be seen through as a segment inside the vanishing nph. Table II also gives the time table when the area is to face us. The boundary of the npc is supposed here at 57~58°N (according to the diagram of P B JAMES (see CMO #130 -25 Feb 1993: Baum's diagram points to slightly smaller at 54°N) so that the perimeter of the dark region of Vastitas Borealis is expected to be visible..

▼CMO #329のForthcoming (5)で北極雲の末期と北極冠の出現の関係を1990年や1992年の例を基に略述したが、ここではその続編として2007年に実際にいつどの様に見えるか予想図と観測時間帯を↗示してみようと思う。▼#329で挙げた例の内、一つはドーズのスリットだが、季節的にはかなり早くから可能であるものの、実際に1864年にドーズが見たのはλ=330°Lsと340°Lsの間と考えられるから、今年ならば15Octあたりから31Oct頃までとなる。中央緯度はφ=6°Nから7°Nで、条件は悪くはない。視直径δは11秒台後半から12秒角である。経緯度図では北極雲の境界をボーム・ドルフュス曲線(CMO#109 -25Sept1991- p0944参照)にならって45°N辺りに置いてみた。もしマレ･アキダリウムの一部が透けるとして、50°Nぐらいであろうか。衝前であるから、日本から17hGMT頃に見るとして、表Iから十月中旬が適当であることになる。▼もう一つは、春分頃に未だ北極雲の残留物がある頃にパンカイアを覆う北極冠の縁にギュンデスが縁として現れるのを狙うという意味でΩ＝180°Wを狙うことを考える。プロポンティスIは出ている筈である。この春分時の北極冠の周辺部は57~58°Nにあると考える(例えばCMO#130--↗

Table I. The transit time at the CM of Ω=030°W (M Acidalium): In Asia, 02 h JST corresponds to 17 h GMT and so the M Acidalium faces to them in mid Oct. At the end of October, the European observers catch the face at the end of October at the meridian. In the US, the observers at the region where GMT-6h is standard will be able to check M Acidalium at 02 hrs Local Time at 08h GMT and hence at the beginning of November. The season DAWES saw the slit was between λ=330°Ls and 340°Ls。

GMT	GMT	GMT
15 Oct at 16:57 (λ=331°Ls)	26 Oct at 23:56	06 Nov at 06:17
16 Oct at 17:32	27 Oct at - - - - (λ=337°Ls)	07 Nov at 06:55
17 Oct at 18:10	28 Oct at 00:35	08 Nov at 07:33 (λ=344°Ls)
18 Oct at 18:49	29 Oct at 01:13	**09 Nov at 08:11**
19 Oct at 19:28 (λ=333°Ls)	**30 Oct at 01:52**	10 Nov at 08:48
20 Oct at 20:06	31 Oct at 02:29 (λ=339°Ls)	11 Nov at 09:26
21 Oct at 20:44	01 Nov at 03:07	12 Nov at 10:04 (λ=346°Ls)
22 Oct at 21:23	02 Nov at 03:45	13 Nov at 10:41
23 Oct at 22:01 (λ=335°Ls)	03 Nov at 04:23	14 Nov at 11:19
24 Oct at 22:40	04 Nov at 05:01 (λ=342°Ls)	15 Nov at 11:56
25 Oct at 23:18	05 Nov at 05:39	16 Nov at 12:34 (λ=348°Ls)

Table II. The transit time at the CM of Ω=180°W (Gyndes segment): In Asia, 00 h JST corresponds to 15 h GMT and so the perimeter of the npc at Gyndes faces to them in mid December. The European observers catch the area in midnight at the end of December at meridian. In the US, the observers at the region where GMT-6h is standard will be able to check the region at midnight at the beginning of December or just before.

GMT	GMT	GMT
01 Dec at 07:27	11 Dec at 13:30	21 Dec at 19:30
02 Dec at 08:03 (λ=356°Ls)	12 Dec at 14:06	22 Dec at 20:06 (λ=006°Ls)
03 Dec at 08:40	13 Dec at 14:42	23 Dec at 20:42
04 Dec at 09:16	**14 Dec at 15:18** (λ=002°Ls)	24 Dec at 21:18
05 Dec at 09:53	15 Dec at 15:54	25 Dec at 21:54
06 Dec at 10:28 (λ=358°Ls)	16 Dec at 16:30	26 Dec at 22:30 (λ=008°Ls)
07 Dec at 11:05	17 Dec at 17:06	27 Dec at 23:06
08 Dec at 11:41	18 Dec at 17:42 (λ=004°Ls)	28 Dec at 23:42
09 Dec at 12:18	19 Dec at 18:18	29 Dec at - - - -
10 Dec at 12:54 (λ=000°Ls)	20 Dec at 18:54	**30 Dec at 00:18** (λ=010°Ls)

-25Feb1993号で紹介した)ジェームズの値では春分ではこうなる。状況は#329の図で示したとおりである。表IIから日本の場合十二月中旬頃に南中時に見られるはずである。北極雲の濃度によるが、ほどよければ中央ではギュンデスが見え、端では濃度が増すから、薄れるということになる。 □

便　り
Letters to the Editor

The first part is a sequel to the preceding emails in #333 which were all concerned with the present Mars (chronologically from 7 July to 24 July 2007 this time).

★・・・・・・***Received: Sat 7 July 2007 10:49:56 JST***
Subject: Mars Dust Storm Image July 6th

Hi Masatsugu, Seeing was excellent in a light fog. SPC might be trying to break out and NPH visible. Large cloud over Sirenum, a cluster of small clouds in NW Sirenum. A chain of 5 clouds over the extent of Cimmerium. Small clouds scattered in higher latitudes in S. Hemisphere. Good seeing, **Jim MELKA**

★・・・・・・***Received: Sat 7 July 2007 12:39:27 JST***
Subject: Mars July 6, 2007

Hello again Masatsugu, I was lucky enough to get another observation with very poor conditions. Only one video sequence captured between clouds and wind. It looks like dust activity is subsiding in this region of Mars. ・・・・ Best Wishes, **Ed LOMELI**

★・・・・・・***Received: Sat 7 July 2007 22:31:54 JST***
Subject: RE:Mars Dust Storm Image July 6th

Hi Masatsugu, I'm not sure the dust came from any side. My image seems to suggest that all of the dust clouds are independent and form simultaneously by some unknown mechanism. Maybe it's strong south to north winds from the SPC. Or maybe the clouds came from both the east (Solis Lacus) or West (Eridania). I'm not sure. What do you think? **Jim MELKA**

★・・・・・・***Received: Sat 7 July 2007 23:26:38 JST***
Subject: Mars - July 7, 2007

Greetings Gentlemen, Here is my first image of Mars for 2007. The seeing conditions were only fair but hopefully it will be of some use. Best regards,

Bill DICKINSON

★・・・・・・***Received: Sunday, 8 July 2007 4:49:53 JST***
(Date: Sat, 7 July 2007 20:49:53 +0100)
Subject: Re: Alert on Mars

Hi Masatsugu, Solis Lacus is under attack.
Best wishes **Dave TYLER**

★・・・・・・***Received: Sun 8 July 2007 10:49:12 JST***
Subject: Mars images July 6th and 7th

Hi Dave (MOORE), I hope you don't mind my borrowing your email list but this is really getting exciting! I finished processing my July 7th image and the CM is within 4 degrees of my July 6th image. The resolution of the two images look about the same. This should allow a direct comparison of dust clouds in Mare Sirenum and Cimmerium a day apart. Take a look at them side by side. http://asemonline.org/archives/537 .
I'll try for the hat trick tomorrow morning. Wish me luck.

Jim MELKA

★・・・・・・***Received: Sun 8 July 2007 13:12:22 JST***
Subject:Re:RE:Re:RE:Argyre bright? -Mars 2007/07/05

Minami-san, Sorry about the poor conditions this morning. I know the feeling (4 times in a row last month).

Well, as I predicted I had some sky to work with this morning and I actually could see Mars in the sky from 18:30 - 19:00 UT. Seeing was good for around 5 minutes around 18:55 UT - BUT!! ..... I accidentally had the blue filter on instead of IR. After I realized my mistake and changed filters the seeing worsened and transparency decreased to around 0. Very frustrating, but will try again soon. I'll send you an image if the blue channel capture, or the poor seeing IR capture shows something.

It was great to see an image of Solis Lacus by Dave Tyler btw!! Looks dusty to my eyes.

Best regards and clear & steady skies (hope the rainy season ends for us soon!) **Robert HEFFNER**

★・・・・・・***Received: Sun 8 July 2007 17:25:48 JST***
Subject: Main features prominent again -Mars-07/07/07

Dear CMO, I was able to save an image from this morning with some careful processing. Transparency was very very poor after 19:00 UT as I mentioned earlier, but the IR filter and the DMK were able to pick up some detail through the clouds luckily for this 19:42 capture (lot of perseverance this morning). I am looking forward to seeing what this camera can do in good conditions. I combined a blue channel from a little bit earlier to show the morning limb clouds. No dust is visible (??) and the main features have cleared up well at this CM. Please include both images under my *RHf* image section.

Thanks and Best regards as always,

Robert HEFFNER

★・・・・・・***Received: Mon 9 July 2007 04:56:39 JST***
Subject: Mars Images (July 8th, 2007.)

Hi all, Here are some images from this morning. Pretty decent seeing for the low altitude. Some extensive dust obscuration across Solis Lacus extending across Claritas into Daedelia. Aurorae Sinus upto Protei Regio looks very dark. Argyre looks fairly bright, (possibly dust?)

Below are links to colour and mono imagery. Also a simulated image of the time to show what the Planet "should" look like.

http://www.damianpeach.com/mars07/m2007_07_08rgb_dp.jpg
http://www.damianpeach.com/mars07/m2007_07_08bw_dp.jpg
http://www.damianpeach.com/mars07/m2007_07_08sim.jpg

Best Wishes **Damian PEACH**

★・・・・・・***Received: Mon 9 July 2007 23:52:54 JST***
Subject: Mo16June Mo24June_07

16, 24Juneが出来ましたのでお送りします。
日曜日の朝は、晴れの予報で大いに期待して待ってはいたのですが、結局曇りで、あれでも7時すぎには晴れ間が見えたのですが観測には至りませんでした。 **Yukio MORITA**

★・・・・・・***Received: Tue 10 July 2007 04:00:22 JST***
Subject:Mars Images (July 9th, 2007.)

Hi all, Here are some images from this morning. Good seeing. The whole aspect of Mars at this longitude has become unrecognisable. The changes from yesterday are notable with significant movement of dust, includng a bright core of dust over nectar/protei regio. Dust remians over Solis lacus, and i also suspect dust across the southern polar areas.

http://www.damianpeach.com/mars07/m2007_07_09rgb_dp.jpg

http://www.damianpeach.com/mars07/m2007_07_09red_dp.jpg

Best Wishes **Damian PEACH**

★・・・・・・***Received: Tue 10 July 2007 04:03:35 JST***
Subject: 2007/7/8 Mars and the dust storm

Hi David, Damian and other guys, here was the seeing not so wel, the low altitude was the problem and I must look over my roof from my house, mmm..

Over 2.5 weeks I go on vacation, South France, hope that I can do more. Regards **Richard BOSMAN**

★・・・・・・***Received: Tue 10 July 2007 05:25:44 JST***
Subject: RE:RE:Mars Dust Storm Image July 6th

Hi Masatsugu, I succeeded (in the hat trick) and I will post on my webpage maybe today. I'll let you know.

Sincerely, **Jim MELKA**

★・・・・・・***Received: Tuesday, 10 July 2007 7:21 JST***
Subject: Re: Mars Images (July 8th, 2007.)

Greetings Martians. So it seems that Mars has begun with a dust storm! Great to see that I was not alone the other night.One of those increasingly rare nights of clarity but unfortunately very poor seeing from my position.

Still, having waited up, prepared, and collimated, it had to be done. My first Mars image for this apperition.It shook like a jelly in a fish tank, but some results can be seen. Onwards and upwards

ps : Is it possible that one of the observers has bottled some really good seeing conditions from an island such as Barbados, and then releases them about his telescope just prior to imaging ? Warmest regards

Bruce KINGSLEY

★・・・・・・***Received: Tue 10 July 2007 13:00:07 JST***
Subject: Mars Dust Storm Image July 8th

Hi Masatsugu, Here is the 3rd day. If the image is correct some of the larger clouds have moved or changed shape from July 7th. I think the most notable cloud changes occurred from July 6 to 7. Good seeing,

Jim MELKA

★・・・・・・***Received: Tue 10 July 2007 15:50:21 JST***
Subject: mars obs. last 09th

Dear sirs, Please find my recent observations about mars last 09th morning with my
160mm reflector at 245x: Hope this will satisfy the mars observationnal research program. Have good receipt of the present document. Best regards

Stanislas MAKSYMOWICZ

★・・・・・・***Received: Tue 10 July 2007 23:07:13 JST***
Subject: 2007 Mars Images

Gentlemen, I am submitting a series of Mars images that I have captured between the dates of May 30, 2007 and July 8, 2007. All images have been captured through a 180cm Maksutov-Cassegrain from my location in Oxford, Connecticut, USA.

Regards, **Peter GORCZYNSKI**

★・・・・・・***Received: Wed 11 July 2007 00:59:40 JST***
Subject: Mars 2007 July 08

Some attempts at Mars from July 08, though you will probably have seen some better ones by now.

I am getting the "dark ring" effect very severely on these. Anyone know how to combat it? Or is it just bad seeing? Anyway, the dust is discernible if you know how the planet "should" look - thanks Damian for the simulation. **David ARDITTI**

★・・・・・・***Received: Wed 11 July 2007 12:08:12 JST***
Subject: Mars - June 27, 2007

I have returned from vacation and was able to get this rather poor image together. I took it the morning I left, but was unable to fully process it. It was taken in very poor, unstable skies and normally I probably would not send it, but it does show an increase in dust activity over my image of the 24th. Also, the South Polar cap has decreased in brightness over the image of the 24th. Hopefully the image can be of some use.

I apologize if many of you did not get the first image as I hastily put it together once I heard dust was confirmed. There are no doubt others that should be on the list, but my old Mars address list was deleted.

The monsoon is beginning in Arizona, so I have traded clear unstable skies for humidity and clouds. Thanks

Dave MOORE

★・・・・・・***Received: Thu 12 July 2007 09:27:04 JST***
Subject: Mars 11 July

Hi All, I have attached some Mars images from 11 July. The dust clouds are still prominent in the southern hemisphere and seem to cover the SPR. Some anomalous albedo features near bright dust cloud on AM limb.

Best, **Don PARKER**

★・・・・・・***Received: Thu 12 July 2007 09:55:44 JST***
Subject: International Marswatch

Hi All, Just a reminder to check out Dave Klassen's *International Marswatch* web site. Dave gives nice summaries of what's going on. You can also upload your images there.

http://elvis.rowan.edu/marswatch/news.php#MoreDust

Thanks, Dave.

In addition to Geoff Gaherty's excellent Marsobservers groups site on Yahoo, check out the Oriental Astronomical Association's (OAA) CMO site:

http://www.mars.dti.ne.jp/~cmo/oaa_mars.html

You are encouraged to participate in this superb group.

Finally, see Jeff Beish's Mars site:

http://www.tnni.net/~dustymars/

It is loaded with observing techniques, apparition data and free downloads of Jeff's ephemeris programs.

Best, **Don PARKER**

★・・・・・・***Received: Fri 13 July 2007 11:09:50 JST***
Subject: mars small & disturbed

Mr Masatsugu MINAMI Hello, Today i did my telescope out of observatory & I took RGB image from mars, first it is to small & disturbed, i don't konw it is caused by seeing or this situation is for itself, I don't

think that I can one phenomenon to cause to appear. second I send one image for you PLS see you it,& i try again next time, welcome your comment. Cheers

Sadegh GHOMIZADEH

★·····*Received: Fri 13 July 2007 13:32:44 JST*
Subject: fw

Masatsugu MINAMI Hello again, Realy you found phenomenon, thank you very much for you compliment, ok I try everyday & I try that a good seeing to take .

Also: my telescope celestron C 11 camera ToUcam pro III mono filter astronomic RGB, mount losmandy G 11 +Gemmini GO-TO & I used 2X barlow.

the time: our time was 4 AM & UTC time to be 00.30 or 24.30 Am we have exactly 3.30 different with UTC time. Many Cheers **Sadegh GHOMIZADEH**

★·····*Received: Fri 13 July 2007 18:07:31 JST*
Subject: THEMIS monitors dusty Martian atmosphere

Minami-san, I thought this was pretty interesting.
Just in case you haven't seen it already:
http://themis.asu.edu/dustmaps/

I hope it clears up soon, no sky to work with here all week, not even this weekend with the typhoon arriving.

Best regards, **Robert HEFFNER**

★·····*Received: Fri 13 July 2007 23:50:09 JST*
Subject: Mars 12 July 2007

Hi Masatsugu, Attached is Mars on 12 July 2007 in IR.

Best regards, **Ethan ALLEN**

★·····*Received:Sat 14 July 2007 21:06:29 JST*
Subject: Mars 14th july 2007

Hi all, Finally my first Mars images taken during this desperating "summer" :-(
http://www.astrosurf.com/pellier/M070714-CPE

Apart of the SPR, I would say that there is a dust cloud in Chryse and another one over Sinus Meridiani that looks invisible. Best wishes **Christophe PELLIER**

★·····*Received: Sun 15 July 2007 03:29:20 JST*
Subject: Re: Mars 12 July 2007

Hi Masatsugu, I'm happy that my observation of 12 July is useful for tracking the western moving dust. Is it correct that my image shows two main cores? The larger one positioned over Electris and the smaller over Eridania. Or, is the dust further south, over Mare Chronium?

It's interesting to compare my image to the THEMIS dust map of 11 July to 12 July:
http://themis.asu.edu/dustmaps/detail/thmdust_24715-24728.html

Best regards, **Ethan ALLEN**

★·····*Received: Sun 15 July 2007 03:32:10 JST*
Subject: Mars July 14 2007

Looks like the dust may be settling- the SPC seems to be peeking out. Some dust still creating anomalous albedo features. **Sean WALKER**

★·····*Received: Sun 15 July 2007 03:37:30 JST*
Subject: Re: Mars 12 July 2007

Hi Masatsugu, One other thing: I would like to join the CMO mailing list. How do I do join it? Thanks,

Ethan ALLEN

★·····*Received: Sun 15 July 2007 07:46:12 JST*
Subject: Mars 13 July

Hi All, I have attached a Mars image from 13 July. More to follow. SPC is visible as well as numerous dust clouds over Daedalia-Claritas and surrounding Sirenum. Best, **Don PARKER**

★·····*Received: Sun 15 July 2007 08:24:14 JST*
Subject: fw

Sehr geehrter Herr Masatsugu Minami, leider muß ich auf Deutsch antworten. Sie haben mich nach den Daten gefragt. Bis jetzt habe ich das nicht beachtet. Ich werde das überbrüfen, dann sehe ich, was los ist.

Das ist für mich unbekannt. Ich nehme immer um 00:45 Uhr UTC auf, weil im Osten meines Teleskopes eine Mauer ist und ich warten muß, bis Mars über dieser Mauer erscheint. Mars erscheint immer zu dieser Zeit und eine halbe Stunde später erscheint die Sonne. Das ist mein Problem. 00:45 UTC entspricht 4 Uhr morgens Lokalzeit in Teheran. Viele Grüße

Sadegh GHOMIZADEH

★·····*Received: Sun 15 July 2007 09:14:16 JST*
Subject: Mars July 14, 2007

Rather poor conditions this morning. Best Wishes,

Ed LOMELI

★·····*Received: Sun 15 July 2007 12:15:35 JST*
Subject: Dust storm Image July 14

Hi Masatsugu, Solis Lacus, unless it is really a shadow of cloud in Daedalia, looks cutoff. The Olympus Mons area is dark. May be long diagonal clouds bands running thru Daedalia and Eastern Sirenum. Bye for now.

Jim MELKA

★·····*Received: Sun 15 July 2007 14:59:56 JST*
Subject: MArs 13 July

Hi All, I have attached some more Mars images from 13 July. Best, **Don PARKER**

★·····*Received: Sun 15 July 2007 23:50:16 JST*
Subject: Re: Mars 14th july 2007

Dear Masatsugu, I do not participate to those reunions so I was not aware of this omission. I'm going to remind Daniel of the idea - by the way we will hold a commission meeting next autumn and I will make sure that the perspective come into debate! I can't imagine I could miss this occasion to meet you.

The absence of Mars images from Europe is certainly half due to the weather... april 2007 has been an exceptionaly warm and sunny month (I remember sleeping with the window open !) but since then, it has been a continuous festival of low pressure systems, and in the last three weeks, even the temperatures began to cool down considerably: This is valuable for northern France as well as Great Britain and it plagues a great deal of active observers.

As for the other countries, surely people didn't "activate" the possibility of observing Mars at 6-7"... unfortunately. Now weather perspectives for me are sitill not improving for the coming week :-(Best wishes

Christophe PELLIER

★·····*Received: Mon 16 July 2007 09:02:09 JST*
Subject: Mars Image - July 13, 2007

Gentlemen, I am submitting a set of images from July 13. Regards, **Peter GORCZYNSKI**

★·····*Received: Mon 16 July 2007 12:55:20 JST*
Subject: Mars 15 July 2007

Hi Masatsugu, Attached is Mars on 15 July in RGB and IR. Conditions were very poor. In the RGB image the SPC is visible. Olympus Mons is dark. The IR image shows dust over Zephyria or possibly further north. The dust over Electris is still present.

P.S. Thanks very much for your excellent description of the details of my image of 12 July. The information you provided on the Themis diagrams was very interesting! It looks like we amateurs are still needed, even with all the orbiters currently visiting Mars. Best regards,

Ethan ALLEN

★・・・・・・***Received: Mon 16 July 2007 16:31:37 JST***
Subject: Mars - 2007/07/15 UT

Dear CMO, Here is a Mars image from this morning. Conditions were poor as is the norm here recently, but I made the best attempt possible given the conditions.

SPC is visible but faint, streak/albedo feature through M. Cimmerium, Hellas bright, S. Hemisphere features on the evening limb faint or obscured. One of these days seeing will hopefully improve after the rainy season is over. Best regards as always, **Robert HEFFNER**

★・・・・・・***Received: Mon 16 July 2007 16:52:38 JST***
Subject: Re: Defect of illumination+ obs 14th and 15th

Dear Minami san, May I thank you for the sketches you sent me in order to improve my templates before sketching mars. I was convinced that on so tiny disks at the eyepiece, this fact was negligeable and not important, I imagined so. I will use them nextly for the observations. However, I couldnot catch them for the last ones, the 14 and 15th mornings. I submit you my recent observations about mars: - last 14th morning with my 100mm refractor at 270x: - last 15th morning with my new 200mm cassegrain at 270x (not a big step in
comparison with the 100mm refractor for the momment): I think the right aperture for our now period remains still shared between the 10 and 16cm, the 16cm is on modification for reduction of the secondary diameter in order to improve and find more contrasted details. Detail locations on the mars disk 15th july are of course not sharply set but present and limited by the seeing conditions. With better ones more acurate details can be accessible. I prefer to provide raw sketches than improved ones. Hope this will satisfy the mars observationnal research program anyway.

However I ask you nextly to transfer all your mails to my personnel mail box: stsma at tiscali.fr. I will left my office for moving to an other professionnal occupation, but here until 25th july still. Thanks for considering Minami san.

Have good receipt of the present documents.
My best regards. **Stanislas MAKSYMOWICZ**

★・・・・・・***Received: Mon 16 July 2007 18:01:21 JST***
Subject: Re: Mars 14th july 2007

Dear all Mars observers, As Christophe did, I resumed my Mars observations those days when we finally got several nice nights. I actually first observed Mars on the 12th morning, but I attach here another observation done about at the same time as Christophe:

[1] drawing made with my 25.6-cm newtonian in the morning twilight from Versailles: The south region to Mare Erythraeum (Argyre,...) seemed to me slightly brighter, more yellowish and uniform (no SPC) than the other bright regions of the planet. Sinus Meridiani was probably not seen but Sinus sabaeus probably visible not far from terminator. Generally contrasts were not as strong as on the drawing. On te 12th (CML = 29 versus 8.7) the view was similar. Seeing was relatively good.

[2] I also attempte some images with a small compact Digital Camera (Canon Powershot A710 IS) behing the eyepiece (x333) of the Dobsonian (no tracking). The sum of 12 images at 1/30s (200 ISO *F*=7602mm) between 4:01.9 and 4:07.1 UT on 14 July 2007 is attached here...

[3] As many are also interested in Jupiter, which I observed nearly five consecutive evening, I attach my latest drawing of the giant planet with fair seeing yesterday evening (15 July 2007 20:10 UT). [I hope to find time to update my planetary webpages this week...]

Clear Skies, **Nicolas BIVER**

★・・・・・・***Received: Mon 16 July 2007 18:55:06 JST***
Subject: Re: RE:Mars - 2007/07/15 UT

Minami-san, Well, I knew seeing was going to be poor according to the upper level wind chart, but it was clear for the first time in more than a week so I gave it a try. Sorry to hear about the rain in Fukui. Hope you get a clear break this week.

This morning I had my finger set on the lever to change filters, waiting for it to improve, but it never did and before long the Sun was up.

Since you are interested in the RGB data, I will try to image with the LU075C later this week if I get a chance.

Honestly the conditions are frustrating, but every imaging opportunity is a learning experience. Better seeing/transparency will make a real difference.

Thank your for the information on THEMIS and the attached image. I will see if I can dig up some information on Odyssey on the internet. Best regards and have a good Sunday, **Robert HEFFNER**

★・・・・・・***Received: Tue 17 July 2007 01:52:11 JST***
Subject: Mars 2007/7/16 04hh03 UT

Hi guy's, Mars this morning. Kindly regards

Richard BOSMAN

★・・・・・・***Received: Tue 17 July 2007 02:13:22 JST***
Subject: CMO SITE

Hi Masatsugu, I thought you should know that Mars images are not observable on the home page.

Thanks. **Jim MELKA**

★・・・・・・***Received: Tue 17 July 2007 05:12:32 JST***
Subject: Re: PS:RE:Re: Mars 14th july 2007

Dear Masatsugu, The diagrams also looks unsatisfaying to me; if they span several days, then one can't tell where the dust began and how it moves. However the intensity of dust opacity looks impressive, and not subsiding... But the planet is still very far. Since 2001 I have been dreaming of taking CCD images of a big dust storm, and now I'm afraid that I will never for this opposition cycle.

Maybe this is an hommage of amateur's vigilance, but scientits maybe also aware of the martian weather thanks to the rovers?

Best wishes, **Christophe PELLIER**

Masatsugu MINAMI a écrit :

>PS:
>Dear Christophe,
> Just my recent thought about the contributions of amateurs to
>astronomy (as said by Francis Oger):
> I don't know much about the Themis system on board Odyssey, but I
>suppose it has worked on no more than several data spots in a limited
>Martian region in a day hitherto (it looks it needed several days to
>cover the whole angles), but it looks after 9 July that they
>augmented the data coverage to span the global angles in a day: Thus
>they now can construct a diagram of dust activity each day *à la* TES
>dust diagram in the case of the MGS. This must have been because they
>heard the news of the dust entraining from the amateur side. If so,
>don't you think this is a contribution of amateurs to astronomy?
> Even then I am not satisfied with the dust opacity diagram since the
>data spots look still very coarse.
>With best wishes, >***Masatsugu***
>PS's PS:
>I suppose they made a mistake on 8 July: The diagram (attached
>please find) must have spread an erroneous idea among amateurs that
>the dust was at peak on 8 July, and then it began subsiding. If so,
>it was a bad contribution of professionals to amateurs. It seems
>however they have deleted the diagram without any message from
>http://themis.asu.edu/dustmaps/

★・・・・・・***Received: Tue 17 July 2007 05:35:58 JST***
Subject: RE:CMO SITE

Hi Masatsugu, Previous to today, all I would need to do is go to the home page http://www.mars.dti.ne.jp/~cmo/oaa_mars.html and without clicking on anything, I could scroll down and see the latest images. Now, all I see is the image icons above the annotations. I tried clicking on the banner [2007/08 CMO Mars Gallery]. When I do IE says "page cannot be dis-

TEN YEARS AGO (143)

----CMO #193 (25 July 1997) *pp2123-2138----*

CMO #193には、六月後半と七月前半の観測報告がまとめられている。この期間には日本では六月に二つの颱風の接近があり、また梅雨前線の影響で観測は捗らなかった。赤緯も南に下がり、夕方の観測時間は短くなり、観測終了となった方も出はじめていた。視直径はδ=8.2"から6.9"と小さくなり、期末にはλ=148°Lsまで季節は進んだ。この期間には追加報告も含め、国内からは六名、国外からは十二名の報告があった。

日本からは、M Acidaliumの朝方に見える景色から、Syrtis Mj、Elysium地域を見て、Tharsisあたりが見えてくるところまで観測が出来た。この期間の27JuneにHSTがValles Marinerisに黄雲を検出したのだが、日本からの視野には入らなかった。黄雲の発生場所はPathFinderの着陸予定地に近いところであったが、4 Julyに予定どおりに着陸に成功した。CMO Clicks (9)には、上記のHSTが撮した黄雲の画像が取り上げられた。


ISSN 0917-7388
Communications in Mars Observations
火星通信 No. 193
No. 15/1996~1997
25 July 1997
Published by the OAA Mars Section

OAA MARS SECTION 南 政次 M MINAMI

♂……今回は、*16 June*から*15 July*までの一ケ月間の観測紀録を主に扱う。火星の視直径δは16Juneには8.2秒角であったが、15Julyには6.9秒角に落ちてしまい、更に20June頃を境に、火星の視赤緯が天の赤道を横切って南に落ちて行った爲、夕空での観測が急激に困難になっている。更に六月には二つの颱風、6Julyから13July迄は本州には梅雨前線が存在した爲、一層観測の頻度も落ちた。

この間、火星の季節は134°Lsから148°Lsに進捗した。中央緯度ϕは26°N~25°Nで依然北極冠の観測に向いている。位相角ιは40°から最高値41°に上って、再び40°に戻った。

期間中、4Julyにマーズ・パスファインダーが火星に着陸した。直前27JuneにはHSTが黄塵をウァッレス・マリネリスに検出した(後述)。9、10、11JulyのHST像もプレスリリースされた。

The present report deals with the observations of Mars during the period from **16 June (134° Ls) to 15 July (148° Ls)**. The apparent diameter δ was 8.2" arc on 16 June, but went down to 6.9" arc on 15 July. Around 20 June, the declination of Mars came across the celestial equator and went down to the southern sky, and hence its altitude became rapidly lower, causing a difficulty in observing the planet in the evening sky from our Hemisphere. Furthermore we had a heavy rainy front from 6 to 13 July.

The central latitude ϕ stayed near 26°N~25°N so that the north polar cap (npc) was always visible. The phase angle ι was maximal at 41°.

During the period, we heard the news that the US Mars PathFinder safely landed on 4 July (5 July JST). Before that the HST found a dust storm at Valles Marineris (see below).

♂……観測が困難な中、今回拝受の観測は次の通りである：

We received with thanks the following observations contributed to the CMO this time:

ISHADOH, Hiroshi 伊舎堂 弘 (Id) 那覇 Naha, Okinawa, Japan
2 Drawings (13, 14 July) 530×31cm speculum

IWASAKI, Tohru 岩崎 徹 (Iw) 北九州 Kita-Kyushu, Japan
16 Drawings (17, 23, 26, 29, 30 June; 2, ~5 July) 400×21cm speculum

MELILLO, Frank J フランク・メリッロ (FMI) ニューヨーク NY, USA
6 B&W Photos (5, 9, 10, 17, 24, 30 June) 20cm Schmi-Cass AO-2 on TP thru Wr47

MINAMI, Masatsugu 南 政次 (Mn) 福井 Fukui / 大津* Otsu*, Shiga, Japan
31 Drawings (17, 23, 24, 29*, 30* June; 1, 4, 6, 8*, 13*, 14* July)
480,600×20cm refra(福井市自然史博物館天文塞 Fukui City Observatory)/420×20cm spec*

MURAKAMI, Masami 村上 昌己 (Mk) 藤澤 Fujisawa, Kanagawa, Japan
4 Drawings (27*, 29 June; 6 July) 370×15cm speculum/315×10cm refractor*

2123

CMO Clicks (9)には、上記のHSTが撮した黄雲の画像が取り上げられた。

LtEは、Richaed W SCHMUDE (USA)，Thomas R CAVE (USA), Frank J MELILLO (USA), Richard McKIM (UK), Sam WHITBY (USA) Jim BELL (USA), Barry ADCOCK (Australia), Daniel M TROIANI (USA), Nelson FALSARELLA (Brasil), André NIKOLAI (Germany)の外国の諸氏から寄せられている。Jim BELL氏からは、MarsWatch NewsletterでHSTが撮影した黄雲の速報が30Juneに伝えられた。国内からは、山本進(滋賀)、坂上努(福岡)、石橋力(神奈川)、岩崎徹(北九州)、伊舎堂弘(沖縄)の各氏の来信が紹介されている。

筆者のe-mailをまとめた「藤澤だより」も掲載されていて、盛んに動き回っている様子が記述されている。十年前はまだまだ元気だったのが思い出される。

TYA(23) は廿年前のCMO#036 (25 July 1987)が取り上げられた。観測は不可能な時期で、南氏のエッセイ「夏日星」が巻頭を飾っていた。前号に続いて写真資料の紹介があった。来信も多かったとの記述も見える。

村上 昌己 (Mk)

played." Maybe there is a problem on my end.
Sincerely, **Jim MELKA**

★・・・・・・***Received: Tue 17 July 2007 06:13:14 JST***
Subject: Re: FW: CMO SITE

Hi Masatsugu, I checked the CMO homepage on Windows XP with Firefox and IE 7. I also checked it on the Macintosh with Firefox and Safari. Everything is normal on the homepage: the images all appear where they should. I have not found any inconveniences in using your web site. Jim did not provide enough information in his email, so I cannot figure out what he was describing either. I recommend asking Jim if he can repeat the issue and provide more information such as which browser he was using and if he could send a screen shot showing the issue.

Please feel free to email with any other web related questions. It's what I do for a living.

Best, **Ethan ALLEN**

★・・・・・・***Received: Tue 17 July 2007 06:22:50 JST***
Subject: Re: Mars 15 July 2007

Hi Masatsugu, Thanks for your excellent description of the details in my images. I greatly appreciate our correspondence. It has been very educational for me.

I'll do my best to get you a good image of Solis L when it rotates into view! Best, **Ethan ALLEN**

★・・・・・・***Received: Tue 17 July 2007 10:53:43 JST***
Subject: Mars Image - July 15, 2007

Gentlemen, I am submitting a set of images from July 15. Regards **Peter GORCZYNSKI**

★・・・・・・***Received: Tue 17 July 2007 13:19:52 JST***
Subject: Mars July 16, 2007

Poor conditions again with the wind blowing. Not many good frames available to stack, but I can see Solis Lacus under a veil of dust.Best Wishes, **Ed LOMELI**

★・・・・・・***Received: Tue 17 July 2007 22:48:11 JST***
Subject: Mars 16th July UT

Attached is a Bessell 'R' band image of Mars taken this morning in very poor seeing. Only 178 of 2800 frames could be used in the image stack for processing. Best wishes **Maurice VALIMBERTI**

★・・・・・・***Received: Wed 18 July 2007 06:52:46 JST***
Subject: Mars 17 July

HI All, I have attached a Mars image from 17 July. I only had a chance to capture one red-light sequence before a thunderstorm arrived. Poor conditions. Large dust cloud over most of Solis Lacus. The Tithonius complex is unusually broad and dark. Possible shadow, since the Ds= -24.5. Darkening of Daedalia-Claritas noted.

Best, **Don PARKER**

★・・・・・・***Received: Wed 18 July 2007 12:53:11 JST***
Subject: Mars - 16 July 2007

All, Monsoons have arrived in Arizona. I shot these around a few small clouds. Seeing allowed several good images in the IR and Red images. Not so much in B and G. Several bright areas of dust imaged imaged around Solis Lacus, SPC may be faintly visible. Thanks

Dave MOORE

★・・・・・・***Received: Wed 18 July 2007 15:31:36 JST***
Subject: mars obs. last 18th

Dear sirs, Please find my recent observations about mars last 18th morning with my 200mm cassegrain at 250x: Hope this will satisfy the mars observationnal research program. Have good receipt of the present document. My best regards

Stanislas MAKSYMOWICZ

★・・・・・・***Received: Wed 18 July 2007 19:17:25 JST***
Subject: Mars - 2007/07/17 - RBG

Dear CMO, Here is a Mars image from this morning. I was able to take a quick RGB image in between clouds. Quality is poor but so was seeing.

Mare Cimmerium area still looks covered over. SPC covered in a veil (it should be smaller by now).

Best regards, and will send more images if it clears, as seeing looks good according to here (we are in the blue finally):

http://cimss.ssec.wisc.edu/tropic/real-time/westpac/winds/wgmsdlm4.html

Hope skies are clear in Fukui.

Robert HEFFNER

★・・・・・・***Received: Thu 19 July 2007 09:21:16 JST***
Subject: Mars 18th July

Hi Guys, The Dust is obscuring the normal Martian features, but the tiny polar cap and the pointed tip of Sinus Meridiani can just be seen. Best wishes

Dave TYLER

★・・・・・・***Received: Thu 19 July 2007 11:45:23 JST***
Subject: Mars Images (July 18th, 2007.)

Hi all, Here are some images from yesterday. This hemisphere of Mars is significantly obscured by dust (see comparison simulation image) though the SPC shines through brilliantly.

Noachis/Hellespontus is still obsucred. Pandorae Fretum, Deucalionis Regio can be seen, while Sinus Sabeaus is partly obscured. Sinus Meridiani is totally obscured by dust and there seems a bright "core" of dust immediatly over its location. There also seems to be some anomalous albedo markings to its immediate north.

http://www.damianpeach.com/mars07/m2007_07_18rgb_dp.jpg

http://www.damianpeach.com/mars07/m2007_07_18rgb_dp_sim.jpg

Best Wishes, **Damian PEACH**

★・・・・・・***Received: Thu 19 July 2007 17:58:50 JST***
Subject:Re: RE:Mars 18th July

Hi Again Guys, Hi Masatsugu my appologies. From a man too long without sleep ! I took the CM from an incorrectly set time-zone on my Mars Previewer.
I have also re-processed it after seeing Damian's inspiring image! Best wishes **Dave TYLER**

★・・・・・・***Received: Fri 20 July 2007 07:41:07 JST***
Subject: Mars Images (July 19th, 2007.)

Hi all, Here are some images from this morning. Similar aspect to yesterday, though the visible albedo detail seems to have become further reduced in contrast due to dust.

http://www.damianpeach.com/mars07/m2007_07_19rgb_dp.jpg

Best Wishes, **Damian PEACH**

★・・・・・・***Received: Fri 20 July 2007 07:58:00 JST***
Subject: Mars 19 July 2007 from Germany

Dear Mr. Minami, i send you two attached images of mars, obtained from germany. The images shows nearly the same CM on mars - but on 19th June before the dust storm and on 19th July actually covered with dust.
Camera: DMK 21AF04 at 685nm Telescope: 12,5" New-

ton (*f* = 11m). **Ralf GERSTHEIMER**

★・・・・・・***Received:Fri 20 July 2007 08:56:04 JST***
Subject: Mars 19 July

Hi All, I have attached some Mars images from 19 July. Dust remains over Solis Lacus and Candor and extends south of Aurorae Sinus into Eos. Margaritifer S., Nilokeras, and Acidalium M. may also be covered.

Best, **Don PARKER**

★・・・・・・***Received: Sat 21 July 2007 00:08:01 JST***
Subject: Mars 15.7. and 20.7.(2x)

Dear Masatsugu, As advertised, images from 15th July and from today (20th July) follow in the attachment.
First time this year, i processed an IR-RGB image of mars with luminance at 685nm.

With best wishes **Ralf GERSTHEIMER**

★・・・・・・***Received: Sat 21 July 2007 13:00:22 JST***
Subject: Re: RE:Mars - 2007/07/17 - RBG

Dear Minami-san, I too made a failed attempt to get a glimpse of Mars of July 18th UT. The seeing forecast looked very good in terms of upper level winds, and the satellite imagery showed no major clouds, however low level clouds kept rolling over my location. Mars peaked out from the clouds at 19:00UT and I quickly prepared to image, but it was in vain as it soon clouded over again. This has been a very long rainy season indeed. I have not been able to image Jupiter at all since June 27th, more than a month, and most attempts at Mars have been in poor transparency and seeing the past month.

I really hope next week will provide some clear skies and good seeing. For some reason, I have always had my best seeing when Solis Lacus is in view, so I have high hopes.

Yes, I thought the same thing too, Mars seems extremely bright recently despite its small apparent diameter. Certainly due to the dust activity. At least it makes it easier for us to spot the planet through clouds anyway :-)

Looking at the images from Europe, the major features can hardly be seen at all. The dust storm has really spread everywhere. SPC has also shrunk considerably, and the gibbous phase has become more pronounced. At the same time the diameter will reach 7.0" by month's end, and hopefully this will make it somewhat easier to image details/dust clouds on the planet.

Have a good weekend, and fingers crossed our skies and conditions quickly return here in Japan next week.

Best wishes, **Robert HEFFNER**

★・・・・・・***Received: Sun 22 July 2007 01:38:04 JST***
Subject:Mars July 20, 2007

Hello Masatsugu, Another observation. Processing images from this morning. The wind here continues to blow maybe better luck Sunday morning.

Best Wishes, **Ed LOMELI**

★・・・・・・***Received: Sunday, 22 July 2007 1:59 JST***
Subject: Mars image 2007 July 19th

CMO, I have been a keen reader of your publication for the last couple of years and am attaching my first Mars image of this season for your consideration from July 19th. At the time of this image, shortly before sunrise, seeing was very good, but unfortunately I was unable to secure a good enough blue image to make a meaningful RGB composite, so this is in red only. At this longitude (328°) all seems obscured except for the tiny SPC, middle top. Visually at 454x, seeing II, there was much structure visible, but exactly what was dust clouds and which were surface features visible through them was impossible to tell. Hope the attached is of interest。

best regards **Ian HANCOCK**

★・・・・・・***Received: Sun 22 July 2007 02:51:18 JST***
Subject: Mars Image - July 21, 2007

Gentlemen, I am submitting a set of images from July 21. Regards, **Peter GORCZYNSKI**

★・・・・・・***Received: Sun 22 July 2007 10:01:35 JST***
Subject: Mars July 21, 2007

Hello Masatsugu, Images from this morning. I notated P and F on each side. I'll have to come up with a better design. Best Wishes, ed

★・・・・・・***Received: Sun 22 July 2007 10:36:14 JST***
Subject: Dust storm Image July 21

Hi Masatsugu, Please see attached. Thanks.

Jim MELKA

★・・・・・・***Received: Sun 22 July 2007 12:22:31 JST***
Subject: Mars 20 July 2007

Hi Masatsugu, Here's Mars on 20 July in RGB. Conditions were on the poor side again. The dust cloud over Solis Lacus is prominent. The SPC is faintly visible. Olympus Mons, Ascraeus Mons & Arsia Mons are dark.

Best wishes, **Ethan ALLEN**

★・・・・・・***Received: Sun 22 July 2007 15:43:48 JST***
Subject: 2007-07-19 IH Mars Red composite

Hello again, many thanks for your comments. The current position seems to make for difficult imaging, for example the attached, also from the morning of the 19th but at *f*/10 rather than *f*/30 seems to improve contrast between the markings, but it is difficult to decide which are markings and which dust. The situation seems to be similar to Venus at the moment, where the lower magnification of *f*/10 brings out markings that are lost when pushing it to *f*/30. The *f*/10 view (of Mars) is closer to that which is seen visually. I think I may be becoming acustomed to seeing cloud features doing much observing of Venus recently !

This morning (22nd) I had a brief view of Mars, but was only able to complete a drawing before clouds intervened until dawn. At 02.10 UT, longitude 272, dark markings were seen and it seemed that Syrtis Major may be visible through the murk, but it was difficult to be sure, hope this is of help. best wishes. **Ian HANCOCK**

★・・・・・・***Received: Sun 22 July 2007 22:25:41 JST***
Subject: Mars 22 July 2007

Dear Masatsugu, Thank you for your Mail. some gaps on a cloudy sky enabled me to make two
new images. In near infrared ligth at 8.10 UTC and in red ligth at 8.20 UTC. The transmission of the Astronomik-Interference-Red-Filter is about 550 to 700 nm. Seeing was middle, estimated 4/10. Next days are predicted rainy und overcast for germany, but i hope to find occassions for making images.

With best wishes **Ralf GERSTHEIMER**

★・・・・・・***Received: Sun 22 July 2007 22:33:58 JST***
Subject:Re: Mars 20 July 2007

Hi Masatsugu, You are welcome. Please find attached

my blue image from 15 July, ω=134°W. I can't tell if the white clouds over Arsia Mons are showing. I will leave that to your expert eye.

Best Wishes, **Ethan ALLEN**

★・・・・・・***Received: Mon 23 July 2007 09:48:41 JST***
Subject:Mars 21 July

Hi All, I have attached a Mars image from 21 July. Dust continues, covering most of the northern hemisphere. Numerous dust clouds in the south.

Best, **Don PARKER**

★・・・・・・***Received: Mon 23 July 2007 10:38:57 JST***
Subject: Mars July 22, 2007

Hello Masatsugu, I hope I have it right this time *L*. I also included raw images of the direction of motion; PF is with north up and PF2 is with south up.

Best Wishes, **Ed LOMELI**

★・・・・・・***Received: Mon 23 July 2007 14:01:04 JST***
Subject: Arsia

Hi Masatsugu, I have attached the blue light image from 13 July. I reprocessed it in two different ways and have also attached these. In addition, I reprocessed the 11 July blue image. Unfortunately, I don't see the Arsia cloud in these. Maybe we would have had a better chance at a later CM. It's a good idea to look for this cloud now, but a combination of dust and small angular size work against us!

I have also attached a WinZip file containing animated GIF files of rotations showing the Arsia cloud in 2003 and 2005. They show the cloud brightening as the planet rotates.

Hope all is well with you. Best, **Don PARKER**

>■・・・・***Date: Sun, 22 Jul 2007 09:41:51 +0900***
>Subject: May I ask a favour of you from MINAMI?
> Dear Don,
> Thank you very much for your recent excellent images of Mars for >which we have a high regard.
> As to your Mars images on 13 July, I would like to ask a favour of >you: As I think the dust at present is global and the dust activity >might have changed the water vapour behaviour in the atmosphere. >Then it is interesting to check the white evening cloud at Arsia >Mons in the present season. So I would be thankful if you could >provide us a B image associated with your image on 13 July at >ω=112°W. Your images on 11 July are already suggestive on this >problem, and its B image seems to show no vapour activity on Arsia >Mons, but I would like to certify the situation further on the >images on 13 July.
> Fortunately here is known as a previous case Christophe's set of >images made on 26 August 2005 when the Martian season was quite >the same as on 13 July 2007 and the phase angle was also similar >(this time it is 42° while it was 44° on 26 August 2005): >http://www.astrosurf.org/pellier/M050826-CPE
> On Christophe's image the white cloud at Arsia Mons is evident >(natural at this season while Olympus Mons is free from the white >cloud and its shadow is evident on the left-hand side). Anyway the >angle of 112 degrees looks critical (judging from Christophe's 112 >degrees B image), and so it may be hard to discuss the situation if >the white cloud looks absent (as in the case of your image on 11 >July) but if we can find it we may say the dust activity is minor >at the latitude at least on 13 July. We would be more thankful if >you could find B images in your observation records which were >taken after the 112°W.
> I am sorry I may trouble you but I would be grateful if you could >provide us the B images in question,
>With best wishes, ***Masatsugu***

★・・・・・・***Received: Mon 23 July 2007 15:50:08 JST***
Subject: mars obs. last 21th

Dear sirs, Please find my recent observations about mars last 21th morning with my 200mm cassegrain at 250x: The main fact is that sinus meridiani and the contiguous part of sinus sabaeus is masked by dusts. Syrtis major seems dim, but partially. This needs confirmation. Hope this will satisfy the mars observationnal research program. Have good receipt of the present document.

My best regards **Stanislas MAKSYMOWICZ**

★・・・・・・***Received:Tue 24 July 2007 02:16:06 JST***
Subject: Re: Mars 20 July 2007

Hi Masatsugu, I'm sorry, I missed the very last part of your email. Please find attached a revised version of my 15 July RGB image with the red, green and blue images separated. I'm also re-sending the IR image separately.

Best, **Ethan ALLEN**

★・・・・・・***Received:Tue 24 July 2007 06:51:54 JST***
Subject: Mars Dust Storm Image July 22nd

Hi Masatsugu, Please see attached, **Jim MELKA**

★・・・・・・***Received:Tue 24 July 2007 07:31:45 JST***
Subject: Submit Mars Photo

Distinguido Sr. M. Minani: Le adjunto dos fotos de Marte. 120 mm. refractor telescope Skywatcher+ Philips Toucam Pro 830 K Webcam +Barlow x3 Moonfisch. No IR filter. Avi 1495 fr. (Selected only 235) SELENE software captured, Registax V. 02:50 UT 20072307:

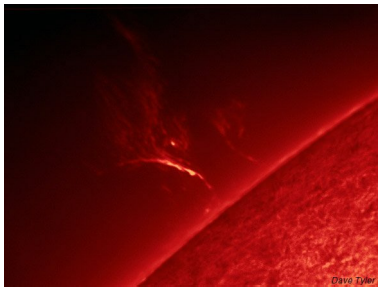
Observatorio Urbano Sta. Bárbara, Sevilla (España)
37° 23' 46" N 5°59' 41" W

"*La felicidad no consiste en hacer lo que uno quiere, sino en querer lo que uno hace* " J. P. Sartre

Un abrazo **Pepe GÓMEZ**

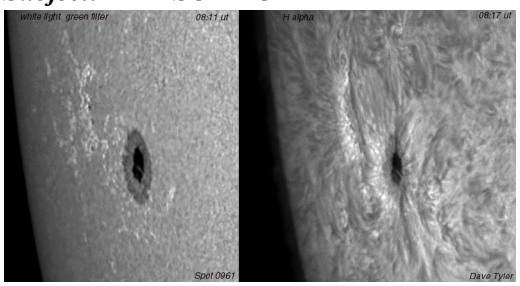
THE following are the usual LtEs received from 25 June to 24 July 2007:

●・・・・・・***Date: Sun, 24 Jun 2007 00:18:22 +0100***
Subject: A prom from the23rd



Hi Guys, Just a few cloud gaps between violent storms today. This rather large fine and rather elegant stucture was the first and only thing I focussed on and managed to capture. 180" focal length 640 x 480 array 7.4 micron pixel width, if you want to do the maths. It's not re-sized. Cheers

○・・・・・・***Date: Tue, 26 Jun 2007 21:00:46 +0100***
Subject: THE SUN TODAY



Hi Guys, Some sun today within the squally conditions. Seeing was very painful. 0961 is shown in integrated light and Hα, once again showing the relationship between plages and Hα bright clouds. There are a few tiny spots following the primary spot onto the disc. ・・・ Best wishes

○・・・・・・***Date: Thu, 28 Jun 2007 23:47:59 +0100***
Subject: The sun this morning

Hi Guys, A break from tradition today, you can see the following images on my website, if you so desire.

There is an image of Spot 0961 in white, off band Ha and Ha. There is also an image of a new small cluster of spots, that has just come onto the disc.

This link will take you to all of my June favourites

http://www.david-tyler.com/upload/upload_page.asp?IMU_PAGE_NAME=solar%20June%2007

Best wishes

○・・・・・・***Date: Sun, 8 July 2007 18:23:38 +0100***
Subject: Jupiter 07-07-07

Hi Guys, Here is Jupiter from the 7th. Good to see the equatorial festoons back to their old shape and colour. Not much detail on Ganymede though. Best wishes

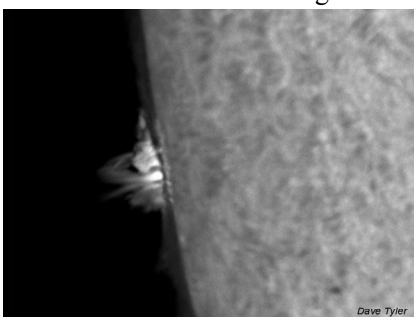
○・・・・・・***Date: Sun, 8 July 2007 22:49:06 +0100***
Subject: The Sun 07-07-07

Hi guys, We had quite an unusual event on the 7th, well, unusual for me during my 9 months of Hα imaging. The outburst on the limb was brighter than the solar disc.

Normally one has to burn out the solar disc with cameras such as we are currently using, to expose correctly for the prominence. A correct exposure for the disc is then positioned over the burned out disc image.

BUT NOT THIS ONE !

The three images of the event are oneshot images. I adjusted the gamma on the camera for one image in an attempt to catch the chromosphere thickness too. The 90inch wider field shot shows how small this little beauty was.



The closer one is 180 inches and then 1.5x enlarged. It was the precursor to the appearance of 0963? which I imaged this morning, pics to follow. The coloured prom image is from two images combined to take in an extensive cluster of promninces. Best wishes

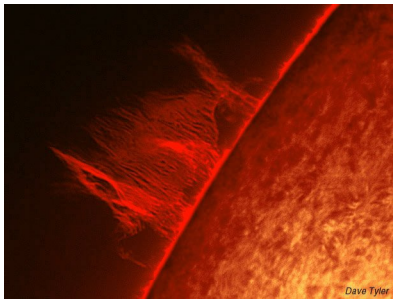
○・・・・・・***Date: Thu, 12 July 2007 14:33:02 +0100***
Subject: Jup 070707

Hi guys, I'm not in the habit of putting out reworks, but ,,,,,,,,,,,,,,,,,,. Must confess to being out of practice with Jupiter. Besides , I like writing that date! Cheers

○・・・・・・***Date: Sun, 15 July 2007 23:47:45 +0100***
Subject: solar images from the 14th

Hi Guys, No sun here today just warm rain and thunder. These are from the 14th, 0963 is waning. Quite a nice prom, with a bit of levitation going on. Best wishes

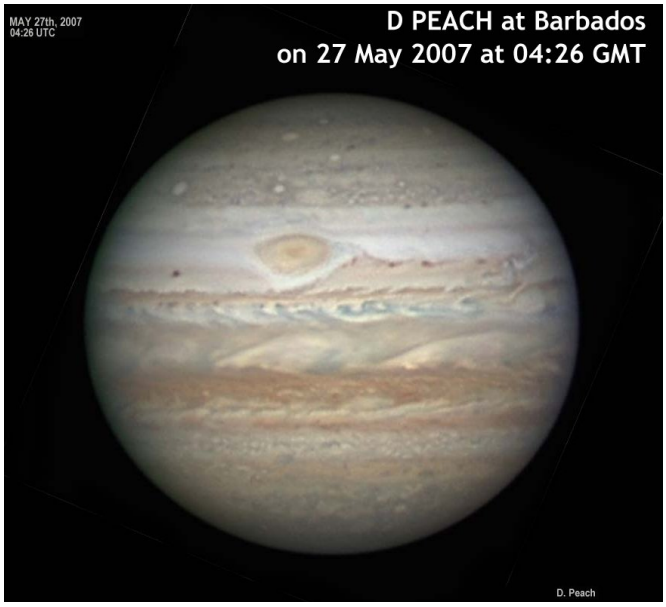
○・・・・・・***Date: Sun, 22 July 2007 22:40 +0100 Subject: Solar prominence***



Hi Guys, The sun was very quiet this morning, apart from this beautiful prominence, reminding me of an icthyosaur skeleton. Best wishes

Dave TYLER (ﾃﾞｳﾞｨﾄﾞ・ﾀｲﾗｰ Bkh 英)
http://www.david-tyler.com/

●・・・・・・***Date: Mon, 25 Jun 2007 16:33:52 +0100***
Subject: Jupiter with GRS - May 27th, 2007.



Hi all, Been working through the data during the last week or so, but stopped to process another one up. Another great night. The GRS is just past the meridian with interesting details on the f.side. Several anti-cyclones scatttered across southern latitudes. The SEB revival source is coming into view at the edge. The area from the NEB northward is very turbulent. Best Wishes

Damian PEACH (ﾃﾞﾐｱﾝ・ﾋﾟｰﾁ Bkh 英)
http://www.damianpeach.com/

●・・・・・・***Date: Tue, 26 Jun 2007 09:59:11 -0500***
Subject: Re: RE: italy in 2008

Dear Masatsugu, I am glad to hear of your productive inquiries of the Brera authorities into Schiaparelli's observations. It is most interesting, and I hope you shall prepare an account of this for readers of the CMO.

I am about to head off to my clinic duties, but thought I would pass along the following communication from the Japanese psychiatrist (based in Tokyo) who has been advising me on the status of fox-possessions in Japan, which as you know was the preoccupation of Percival Lowell during his last visit to the country.

Best wishes, Bill

Dear Bill and Steve: Yes, we are currently using DSM diagnostic system in clinical psychiatry. I think that most Japanese psychiatrists have used DSM since around 1990.

My colleagues and I have not seen fox-possessed patients more than 10years. I do not know why the prevalence of fox-possessed patients is very rare now.

When I was a resident, I saw a middle aged female patient possessed by the fox. She was a middle aged female, who was a religious cult member.

During the cult ceremony, which might lead to ecstatic trans state, she was possessed by the fox. She spoke like fox, "kon kon (onomatopoeic words of Japanese fox growling !!)" and became agitated. For several days, family members observed her, however, her mental conditions did not return to normal. Her family took her to ER and I saw her. She could not talk, but growled. She did not walk but creped. She was very agitated and showed psychomotor excitements. I sedated her by i.v. flunitrazepam and/or haloperidol (I do not remember exactly). I did not admit her since it was full beds in the hospital. Therefore, I leave her in the ER for 10-12 hours with d.i.v haloperidol and/or flunitrazepam. When I stopped d.i.v and she woke up, she returned to human beings. She said she could not recall most. Our (my) diagnosis was psychogenic (primitive) reaction..

I asked my colleagues. Several experienced fox possessed patients as well as dog possessed or horse possessed patients. They said that the praying objects of those patients were dog, horse or fox. The diagnoses of the patients, who my colleagues saw, were not schizophrenia but "psychogenic reaction" and returned to normal in several days.

In 1915, Morita reported praying (devotional) psychoses (sorry I do not know exact English translation term) based on the research of the dog possession. He summarized that praying psychosis is a type of psychogenic
reaction, which is characterized as possession, hallucinations, excitement and so on, and is caused by self-hypnosis through the emotional experience of praying spiritual acts. Our patients look like this type of possession. My patient and my colleagues patients may enter into trans state and possessed by the animal (which are strongly related to their religious objects).

Actually, in the Meiji era, there were many fox possessed patients. It has been said that the Meiji restoration impacted a lot as you mention. I do not know why possessions are very rare in Japan. There are a lot of curious religious cults and many cult members entered into trans state during the ceremony.

I hope it would be helpful. Sincerely, ***Yasuhiro***

P.S. I saw an acute demon possessed patient. I gave her an ECT shot and she returned to normal. I do not know the differences between animal and demon possession.

Bill SHEEHAN (ウィリアム・シーハン MN 美)

●・・・・・・***Date: Thu, 28 Jun 2007 13:17:38 +0900***
Subject:木星画像

こんにちは，昨日の木星画像です。一週間ぶりです。透明度が悪いためか、すっきりしない像です。SEB outbreakの影響でSEBsが復活しそうです。

○・・・・・・***Date: Thu, 5 July 2007 16:29:34 +0900***
Subject: 木星画像　070702

木星画像です。

○・・・・・・***Date: Mon, 16 July 2007 15:11:14 +0900***
Subject: 木星　070714

こんにちは、台風4号が通過して以来の木星画像です。視直径が少し小さくなりました。シーイングは悪くない状態で、SEBSが無い(淡い)、顕著なSEBN、復活したNTB等でしょうか。来週日本へ一時帰国します。

○・・・・・・***Date: Wed, 18 July 2007 13:53:59 +0900***
Subject: 木星　070717

こんにちは、昨日の木星画像です。

○・・・・・・***Date: Fri, 20 July 2007 17:13:08 +0900***
Subject: 木星　J070719

こんにちは、木星画像です。南中が夕方に変わり、忙しい時間帯になりました。

阿久津 富夫(Tomio AKUTSU セブThe Philippines)

●・・・・・・***Date: Thu, 28 Jun 2007 21:10:56 +0100***
Subject: Full calcium-K disk, June 28th

Hi all, Here's a reduced size, full calcium-K disk from early this morning before the clouds returned. The new large group AR10961 has been joined by another small active region to the east (close to the limb). I had assumed that 961 was the return of 960 (May 31st to June 13th) but that group has a latitude of 0 to 8 degrees north, whereas this group has a latitude of approximately 7 degrees south. Best regards,

○・・・・・・***Date: Tue, 03 July 2007 00:07:30 +0100***
Subject: Solar catch-up June 29 & July 01

Hi all, Catching up with some windy captures taken in less than ideal cloud conditions...

Full calcium-K disk from the 29th June

Calcium-K close-up from the 29th June

http://www.digitalsky.org.uk/solar/2007/cak/2007-06-29_12-47-16_CaK.jpg

H-alpha shot from the 29th June

http://www.digitalsky.org.uk/solar/2007/halpha/2007-06-29_12-49-25_H-alpha.jpg

Full calcium-K disk from the 1st July

http://www.digitalsky.org.uk/solar/2007/cak/2007-07-01_16-11-26_CaK_800H.jpg

Best regards,

○・・・・・・***Date: Mon, 09 July 2007 00:53:51 +0100***
Subject: Jupiter, 6th July, UK

Hi all, With the wind finally subsiding to just a gale, a much more relaxed imaging session was possible on the 6th July. Best regards,

○・・・・・・***Date: Sat, 14 July 2007 01:06:35 +0100***
Subject: Jupiter, 13 July

An incoming front was later than expected this evening allowing me time to grab a quick RGB set. Seeing was pretty appauling but the end result does show reasonable detail for 18 degrees of altitude. Best regards,

○・・・・・・***Date: Sat, 14 July 2007 11:13:52 +0100***
Subject: Some AR10963 shots...

Hi all, I'm a bit behind with my posting of these shots so I'll leave them as links so as not to overload mail-boxes.

/*AR10963 on the 8th of July (Calcium-K)*/

http://www.digitalsky.org.uk/solar/2007/cak/2007-07-08_11-34-56_CaK.jpg

/*AR10963 on the 9th of July (Calcium-K)*/

http://www.digitalsky.org.uk/solar/2007/cak/2007-07-09_14-14-25_CaK.jpg

/*AR10963 on the 10th of July (Calcium-K)*//*AR10963 on the 11th of July
(Calcium-K/White/H-alpha)*/

http://www.digitalsky.org.uk/solar/2007/2007-07-11_AR10963.jpg

/*AR10963 on the 12th of July taken under less than ideal circumstances
(Calcium-K)*/

http://www.digitalsky.org.uk/solar/2007/cak/2007-07-12_12-40-52_CaK.jpg

/*AR10963/964 on the 13th of July (Calcium-K)*/

http://www.digitalsky.org.uk/solar/2007/cak/2007-07-13_08-52-22_CaK_1024.jpg

/*Full disk*/

http://www.digitalsky.org.uk/solar/2007/cak/2007-07-13_09-28-36_CaK_800.jpg

Best regards,

○・・・・・・***Date: Fri, 20 July 2007 13:30:21 +0100***
Subject: Twelve days of AR10963...

Hi all, Here is a sequence of calcium-K images of AR10963 which has recently rotated off disk. An animation of the event is also available from the
links below... (Just under a megabyte each.)

Fast:

http://www.digitalsky.org.uk/solar/2007/CaK/Full-sequence_AR10963_fast.gif

Slow:

http://www.digitalsky.org.uk/solar/2007/CaK/Full-sequence_AR10963_slow.gif

Best regards,

Pete LAWRENCE (ピート・ローレンス Selsey 英)
http://www.digitalsky.org.uk

●・・・・・・***Date: Fri, 29 Jun 2007 22:11:02 +1000***
Subject: Jupiter from Tasmania 23th June 2007 UT

Hi all, thanks to trying to extend one of the partitions on my drive whilst processing, I nearly lost this data. Damian kindly showed me this link

http://weather.unisys.com/gfs/6panel/gfs_300_6panel_aus.html

which is a very good indication of seeing in my area. Anthony Wesley, apart from already lending me his spare Lu075m, also has lent me his old 10" x *f*6 Mark Suchting mirror with aluminium tube. We adapted it to the dob base and I then proceeded to adapt the peltier cooling. I have been very impressed with the Lucam Recorder software for the lu075m and when combined with a ram drive, i can happily capture 900 frames @ 640 x 480 in 12 bit mode in each RGB channel @ 30fps.

Anyway, this is my best jupiter to date. Ganymede was

in the field of view and the seeing allowed me to see surface detail on screen. The SEB outbreak was also viewable. Thanks guys for looking.

○・・・・・・***Date: Mon, 16 July 2007 09:21:10 +1000***
Subject: Jupiter Tasmania 15th UT

Hi Guys, Some all right seeing last night, but there was a jetstream (albeit slight) overhead.

That outbreak seems to have settled a bit.

These were taken local time around 9pm. It is dark and getting cold by 6pm and I was happy with the cooling getting the mirror to -.3 degrees when the ambient was -.6 degrees at around 9pm. I may have a few more weeks in Jupiter thanks to active cooling. This image was taken in 12 bit .ser fomat from lucam recorder. I have also taken 8 bit avis, bmps, 12 bit tiffs. Not sure if I will be able to tell the difference between 8 bit and 12 bit images?? But will try

David PRETORIUS
(ﾃﾞｲｳﾞｨｯﾄﾞ・ﾌﾟﾚﾄﾘｳｽ Tasmania 澳)

●・・・・・・***Date: Sun, 1 July 2007 08:15:28 -0700***
Subject: Spot 0961

Here's a mosaic of 0961 including a few filaments from this morning, 13:33 UT, 7-1-2007.

Also attached is another region that caught my interest. 104mm @*f*/30, <1 angstrom.

Sean WALKER (ｼｮｰﾝ・ｳｫｰｶｰ *S&T* 美)

●・・・・・・***Date: Sun, 01 July 2007 17:02:31 -0500***
Subject: Re: Spot 0961

Hi Sean et al: Very nice H-alpha images.

Today I tried 0961 with my new DMK 21AF04-AS and the 6" *f*/12 refractor fitted with a Baader Herschel wedge + a 4X Powermate and a green filter. The seeing was bad due to dense rain clouds and a lot of turbulence, but managed to take some aviｴs at 30+ fps. Best regards,

Eric ROEL (ｴﾘｯｸ・ﾛｴﾙ México 墨西哥)

●・・・・・・***Date: Mon, 2 July 2007 10:34:51 +0100***
Subject: New website

Hi all, Just a brief email to let you all know, if you don't already, that I now have a website here:

http://www.jamiecooperimages.com

...there is a comprehensive selection of astronomy images on there of course. regards

Jamie COOPER (ｼﾞｪﾐｰ・ｸｰﾊﾟｰNorthampton英)

●・・・・・・***Date: Sat, 07 July 2007 15:55:34 +0900***
Subject: 『火星通信』#332 拝受

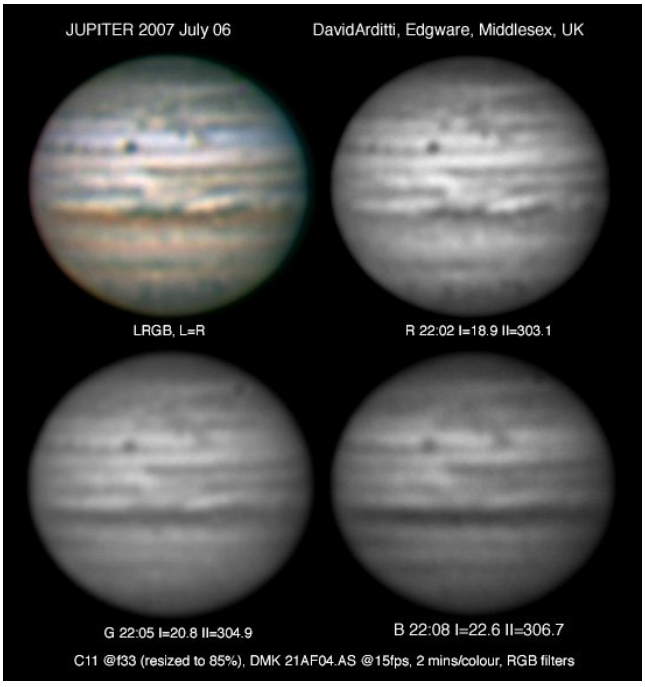
『火星通信』#332、本日お昼頃、届きました。いつもありがとうございます。お礼まで。

浅 田 正 (Tadashi ASADA 宗像 Fukuoka)

●・・・・・・***Date: Sun, 8 July 2007 16:58:50 +0100***
Subject: Jupiter 2007 July 06 - circulating current imaged from UK

Here are the first results from a new DMK 21AF04.AS camera used on a C11. The results are clearly a step above what I was getting from the mono Toucam under similar conditions, and I hope to be able to compare the performance of this camera with a Lumenera as well, soon. It needs to be emphasised that seeing during this session was extremely poor, much less good than when I last imaged Jupiter on June 29.

The southern portion of the globe contains oval BA, South Tropical Disturbance II, and the chain of dark spots being generated by the ongoing SEB revival on the S portion of the SEB. Of most interest is the comparison of these images with the ones I took on June 29. I enclose these again for convenience. It seems, taking these in combination with John Rogers commentary on the other images sent to him recently, that they show the circulating current that has swept one spot retrograding on the SEBs round the STrD, and started it prograding on the STBn just following oval BA. From what he says, this would appear to be the first observation of this phenomenon from the UK since 1934, and the first time it has ever been imaged from the UK.・・・



○・・・・・・***Date: Mon, 9 July 2007 02:48:11 +0100***
Subject: Jupiter 2007 July 07

Quite good conditions this night, for the altitude, enabling even a bit of structure to be resolved in the GRS, and a 3-dimensional appearance to Ganymede, in transit. As usual, IR 807nm is the sharpest wavelength.

Experiments with the DMK camera, comparing a longer EFL (faint image) and slower frame rate (first set), to a shorter EFL (bright image) and faster frame rate (second set) showed little difference in the results under these conditions.

David ARDITTI (ﾃﾞｳﾞｨｯﾄﾞ・ｱｰﾃﾞｨﾁ Edgware ME 英)
http://www.davidarditti.co.uk/observatory.html

●・・・・・・***Date: Mon, 9 July 2007 00:44:13 EDT***
Subject: Pluto: June 19th - 23rd, 2007

Hi all - I know that Jupiter and even Mars now are getting attention lately. But lets not leave Pluto alone in the darkness!

I have posted my latest images of Pluto from June 19th thru 23rd, 2007. See here:

http://hometown.aol.com/frankj12/plutoindex.html

First you will see a short animation. I was try to crop the images from each night to make sure that the stars are still while Pluto moves against the background. It was quite tough.

Then you will see the images from each night.

Finally, Charon may be captured on June 23rd but it is not confirmed. More work is needed to be done.

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

●・・・・・・***Date: Tue, 10 July 2007 11:50:49 +0200***
Subject: Visit in Japan

Dear Masatsugu and Masami, I am happy to confirm that I will be in Japan with my wife from August 2 to 23. We will stay in Tsukuba from August 2 to 8, but we are free for the remaining time. We are both longing to meeting you. With best wishes.

○・・・・・・***Date: Sat, 14 July 2007 13:25:17 +0200***
Subject: Re: Visit in Japan

Dear Masatsugu, Yoko and I are grateful for your invitation and awaiting to meeting you.

At first, Masami-san told me that he would stay near Yatsugataké and observe nagareboshi on August 11-12, and that I could be there with him at that time. If it is the case, I can visit you with Yoko for instance on August 18-19, which is the last week-end before we come back to France. ・・・・

As you know, I am presently "*secrétaire général*" of *Société Astronomique de France* (SAF). This position is no longer as powerful as it was when it was held by Camille Flammarion, and later on by his widow Gabrielle. Anyway, I can say that I am well informed about what is going on, since I am writing every month the "*compte-rendu*" of the council.

Two months ago, we discussed a plan to organize, for the 2009 astronomical year, a symposium on the contributions of amateurs to astronomy. Daniel Crussaire was present at the council, but he did not mention the plan to organize a meeting on Mars observation. I am presently enquiring in order to determine if this meeting will be organized independently, maybe without the contribution of SAF, or as a part of the symposium on the contributions of amateurs to astronomy. With best wishes.

○・・・・・・***Date: Sat, 21 Jul 2007 12:07:48 +0200***
Subject: Re: Visit in Japan

Dear Masatsugu, We are grateful for your invitation on August 18-19. Probably we are going to travel between Tokyo and Fukui by night bus. We hope that Murakami-san will have good health condition, so that we can also meet him.

I did not receive yet an answer from Daniel Crussaire. Roger Ferlet confirmed to me that he is presently in charge of the organization of the UAI symposium on the contributions of amateurs to astronomy, which the SAF wants to organize during the 2009 international astronomical year. He told me that Toshiro Handa (Tokyo University) is one of the members of the comittee for that symposium. He suggested that the meeting on the observation of Mars could be included in the symposium, for instance as a special day. With best wishes.

Francis OGER (ﾌﾗﾝｼｽ・ｵｼﾞｪ Paris 法)

●・・・・・・***Date: Thu, 12 July 2007 14:07:45 +0900***
Subject: 村山定男先生の近況

メール有難うございました。全然お役にたたず、一方的に情報を頂くばかりで申し訳ありません。眼が自分史pp 175-178 とp 201の図にあるような状態ですし、白内障もあり、観測は全然駄目です。それよりも肩甲骨骨折のせいか、年のせいか、15cm *f*/9 反径を屋外に持ち出すのが一人ではむずかしくなってきました。

村山定男先生ですが、私の自分史に対するお礼状に次のようにありました。・・・・

(私信を公開するのはよくないかもしれませんので、村山先生の手紙の部分は『火星通信』に載せないで下さい。)

そういうことですので、村山先生へのインタビューはなるべく早くしていただければと存じます。皆様によろしくお伝え下さい。お体お大事に!

佐 藤 健 (Takeshi (Ken) SATO廿日市Hirosima)

●・・・・・・***Date: Thu, 12 July 2007 04:16:30 +0000***
Subject: Jupiter 11 July

Hi All, I have attached some Jupiter images from 11 July. First clear night in weeks! Best,

○・・・・・・***Date: Mon, 16 July 2007 22:56:02 +0000***
Subject: Jupiter 13 July

Hi All, I have attached some Jupiter images from 13 July. Best,

○・・・・・・***Date: Fri, 20 July 2007 04:13:47 +0000***
Subject: Jupiter 19 July

Hi All, I have attached some Jupiter images from 19 July. Excellent seeing, but gusty winds hampered the sharpness of the methane image. Best,

Don PARKER (唐那・派克 Miami, FL 美)

●・・・・・・*Date: Sun, 15 July 2007 18:55:41 +0200*
Subject: Jupiter, 13th july 2007

Hi all, First images after one month - seeing was poor.
http://www.astrosurf.com/pellier/J070713-CPE

○・・・・・・*Date: Sun, 15 July 2007 22:05:09 +0200*
Subject: Jupiter

Hi all, seeing was a bit better yesterday evening. Almost all the images has been made in binning 2x to cope with the turbulence.
http://www.astrosurf.com/pellier/J070714-CPE
The "ed" spot is "ascending" the STr-D1 - it looks very dark. Regards

○・・・・・・*Date: Mon, 16 Jul 2007 20:11:12 +0200*
Subject: Re: 20070714 Jupiter

Welcome "home" Eric ! Nice to see some images from you again - and superb Best wishes

Christophe PELLIER (ｸﾘｽﾄﾌ･ﾍﾟﾘｴ *nr* Paris 法)
http://pellier.christophe.club.fr/index.htm

●・・・・・・*Date: Tue, 17 July 2007 02:07:55 +0800*
Subject: 20070714 Jupiter

Dear friends, Long time no imaging. I finally got time to resume my planetary imaging with the newly purchases DMK Firewire camera on 14 July, 2007 (Sat) with my friend Bill Yeung and Florence Leung. Jupiter is quite low on the sky (45 degree) and the atmopsheric dispersion affected quite obvious the resolution of the images. Anyway, I am quite satisfied with this first results captured by the new cameras. The images were caputed in LRGB with DMK mono and DFK colour cameras within 4 mins tim window.
http://www.ort.cuhk.edu.hk/ericng/20070714-jupier-lrgb-2.jpg
Cheers and clear skies

Eric NG (呉偉堅 Hong Kong 香港)

●・・・・・・*Date: Thu, 19 July 2007 19:19:02 +0100*
Subject: Europa from Europe, July 17

Hi Dave, Jan, Riccardo, and Guillaume, You all produced a nice set of images of the transit of Europa (and the GRS) which are attached here. Best wishes,

John ROGERS (ｼﾞｮﾝ･ﾛｼﾞｬｰｽﾞ Cambridge 英)

●・・・・・・*Date: Mon, 23 July 2007 18:23:34 -0700*
Subject: Re: FW: CMO SITE

Hi Masatsugu, Here's my report on your sub-sites. On Macintosh, Safari and WinXP, IE6: all the pages are OK. On Mac and WinXP, Firefox: The problem with the sub-sites is caused by the following class on these two pages:
http://homepage3.nifty.com/~cmomn3/277OAA/index.htm
http://homepage3.nifty.com/~cmomn4/BillSHEEHAN.htm
element.style{height:234.2pt;left:0pt;margin-left:0pt;margin-top:0pt;position:absolute;text-align:left;width:175.65pt;z-index:3;}
To fix the two pages above, simply remove the "position:absolute;" descriptor. Here's a copy of the class that will work in Firefox:
element.style{height:234.2pt;left:0pt;margin-left:0pt;margin-top:0pt;text-align:left;width:175.65pt;z-index:3;}
See the attached screen-shots for details on the class and page behaviour. If you update your site with the class above, please check to see if the descriptor "position:relative;" is nessisary for the pages to display correctly in IE6

In regard to Japanese Fonts, The Macintosh OSX ships with the Japanese fonts. On Mac OSX, All the Japanese (and Chinese) fonts look normal on your web site and PDF's.

On WinXP: The following URL askes if I want to install Chinese characters:
http://homepage3.nifty.com/~cmomn3/277OAA/index.htm

The PDF's all look good on WinXP as Adobe Acrobat embeds the vector font outlines in the file when you save it. I tested with Acrobat version 8. Best Wishes,

P.S. Hokusai is one of my favorite artists.

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

☆ ☆ ☆

シー・エム・オー・フクイ **中 島 孝 *Nj***

★前号報告以降、カンパはありませんでした。今後とも宜しくお願い申し上げます。不一

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