COMMUNICATIONS IN 東亞天文學會「火星通信」since 1986

MARS

25 June 2009

OBSERVATIONS

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CMO 2009/2010 Mars Report #03

OAA Mars Section —

 $3 \cdot \cdot \cdot \cdot$ We shall deal with the one-month period from 16 May (λ =267°Ls) to 15 June (λ =286°Ls) during which the parent diameter δ was just from 4.6" to 4.8", the central latitude φ decreased from 23°S to 17°S, and the phase angle I augmented from 26° to 30°. The apparent declination D moved from about 6°N to 14°N. The weather in Japan was unstable during the period and on 9 June the rainy season started at the western part of main islands and on the following day, it expanded to Kantoh district (including Yokohama) and Hokuriku district (including Fukui).

♂・・・・・今回は16May(λ=267°Ls)から15June(λ=286°Ls)の一ヶ月間を扱う。この間視直径δは4.6"から4.8" に増えたに過ぎない。中央緯度φは23°Sから17°Sと落ちた。位相角ιは26°から30°に増えている。視赤 緯Dは6°N強から14°N強となった。日本はこの間天候不安定で、六月9日に九州、中国、四国、近畿 が、また翌10日には関東甲信、北陸、東北南部が入梅した。

♂····· The observations this time reached us are as follows. 今回の観測報告は次のようである。

AKUTSU, Tomio 阿久津 富夫 (Ak) セブ・フィリッピン Cebu, the Philippines 3 *Colour* + 2 *B* + 2 *IR* Images (21, 22 May; 8 June 2009) 36cm SCT @f/24 with DFK21AU04/DMK21AU04

BUDA, Stefan スティーファン・ブダ (SBd) メルボルン Melbourne, Australia 1 R Image (26 May 2009) 40cm Dall-Kirkham with a DMK21AF04

GERSTHEIMER, Ralf ラルフ・ゲルシュトハイマー(RGh)ドイツHabichitswald, Deutchland 10 IR Images (18, 19, 27 May; 1, 2, 8, 13, 14 June 2009)

32cm speculum @f/43, 55, 57 with a DMK21AF04

PELLIER, Christophe クリストフ・ペリエ (CPI) フランス Seine-St-Denis, France 1 IR Image (1 June 2009) 25cm Cassegrain @f/50 with a SKYnyx 2-0M

 $3 \cdots$ Ralf GERSTHEIMER (RGh) from Germany newly joined and began sending excellent and timely images. On 18 May (λ =268°Ls) at ω =049°W and on 19 May (λ =269°Ls) at ω =036°W he proved the recovery of the area of Margaritifer S. On 21 May (λ =270°Ls) at ω =231°W and on 22 May (λ =271°Ls) at ω =226°W, Tomio AKUTSU (Ak) showed the dark band of M Cimmerium: In the former, Syrtis Mj is visible at the morning limb. Stefan BUDA (SBd) shot the images on 26 May (λ =273°Ls) at ω =192°W where the band from M Sirenum to M Cimmerium is seen. On the following 27 May (λ =274°Ls), RGh came to the area of Noachis at ω =313°W: No thick dust cloud was there and M Serpentis was dark. On 1 June (λ =277°Ls), there was first obtained a multiple set of images by Christophe PELLIER (CPI) and RGh: CPI doubted at ω =234°W/235°W that Syrtis Mj might have been dusty (see LtE), but on RGh's image at ω =281°W Syrtis Mj is clearly shown up. RGh's observing site is near Kassel (middle of Germany) and so to the east of Paris

by about half an hour, but RGh got the image after 3 hours and so this must have taken after sunrise. (It was so possible for CPl to meet the angle.) On 2 June (λ =277°Ls) RGh showed at ω =232°W, 251°W and 255°W how Syrtis Mj appears from the limb. The angle ω =232°W is a key on Ak's 21 May image and CPl's on 1 June. On 8 June (λ =281°Ls) RGh took an image at ω =205°W, and Ak did another set at ω =056°W. There is a large gap of 13.5 hours, and the area of Noachis passed. Noachis must have been observable at the west coast of the US continent. There is still a observation gap of about 9 hrs from Japan to Europe.

Finally *RGh* took the pictures around M Sirenum on 13 June (λ =284°Ls) at ω =145°W, and on 14 June (λ =285°Ls) at ω =129°W.

♂・・・・・ドイツのゲルシュトハイマー(RGh)氏が参入し、良像を送ってくれるようになった。 18May(λ =268°Ls) ω =049°W、19May(λ =269°Ls) ω =036°Wはマルガリティフェル・シヌスの復活を証明して いる。21May(λ=270°Ls)ω=231°W、22May(λ=271°Ls)ω=226°Wには阿久津(Ak)氏が撮像し、マレ・キム メリウムを強く出している。前者ではシュルティス・マイヨルが出掛かっている。26May (λ=273°Ls)ω=192°Wではブダ(SBd)氏がマレ・シレヌムからマレ・キムメリウムのバンドを写し出し た。翌27 $May(\lambda=274^{\circ}Ls)$ のRGh氏の $\omega=313^{\circ}W$ は重要で、ノアキスに黄雲がないことを示しており、マ レ・セルペンティスが矢鱈濃い。1June(λ =277°Ls)には初めて複数像が得られた。先ずペリエ(CPI)氏が ω=234°W/235°Wで撮ったが、シュルティス・マイヨルが雲で隠れているかどうかの議論があった(LtE)。 21MayのAk氏の像と比較からも出ていると思うが、CPI氏に続くRGh氏のω=281°Wではシュルティス ・マイヨルが南中で、明確である。RGh氏の觀測地はカッセルの近くであるからパリとは逆に東に半 時間強離れて居るが、更に三時間違いで撮っているので、日の出後の観測であろう。CPI氏の議論は 自分の画像を後で見てのことであろうが、その場で気付けばもう少し待って撮れば確かめられた筈で ある。2June(λ =277°Ls)にはRGh氏が ω =232°W、251°W、255°Wとシュルティス・マイヨルの現れ具合 を示して居る。8June(λ =281°Ls)にはRGh氏が ω =205°Wで撮り、後にAk氏が ω =056°Wで撮っているが、 まだ十三時間半の差があり、ノアキスなどの観測は北米西海岸あたりかと思われるが未だまだ北米で は観測が出ない。現在西回りでも九時間の差がある。最後にRGh氏が13June(λ=284°Ls)ω=145°W、 14June(λ=285°Ls)ω=129°Wでマレ・シレヌムの辺りを撮った。

南 政 次・村上 昌己 M MINAMI & M MURAKAMI

Forthcoming 2009/2010 Mars (4)

Why Is It Not Easy to Observe the Planet Mars? 火星の觀測は難しい!

-Masatsugu MINAMI 南 政 次(Mn) -

SINCE the apparent diameter of Mars is still quite small, we shall be concerned for a while with rather elementary and general items.

* * *

When we say (though sounding a bit of cliché) it is not easy to observe the planet Mars, it does not necessarily imply that it is difficult to discriminate the minute dark markings on the surface. We say so rather ironically, and as we rather believe, every planetary observer must be feeling that the observation of Mars is easy. Those who are accustomed

to the Jovian or Saturnian observations must easily believe that such planets can be observed totally by once or twice, or one day or two day observations. We should here like to regard such observers as *nationalists* because they consider the planets can be observed in a few days by oneself or within one nation. Of course we know the Martian observers may know that the whole surface of Mars cannot be observed in a few days but it will take nearly one month or so. Even then there still remains a tendency to disregard the observations which are made

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abroad, or even if they take account of the observations made at other countries, they seem often to regard that the instructions have been given by their own nation or Section.

One of the reasons why the Mars observation is not easy is because the rotation period of Mars is rather synchronised to that of the Earth, and it is very impossible to observe the whole surface in a few days from one nation or station: Since the rotation periods are akin each other, we are forced to observed similar surfaces every day and it is difficult to watch the other surface within a few days. Thus the observation of Mars needs an *international* or *global* network to grasp the whole aspect. We don't believe this has been widely recognised.

Because of this fact, some phenomena cannot be observed at some specific nations. For example the opposition effect of Olympus Mons is observed during the period when the phase angle is smaller than about 8 degrees, and hence the duration must be within 20 days. On the other hand to watch the whole surface from one station it takes about 40 days, and so half of the terrestrial nations cannot enjoy watching the opposition effect. Nix Olympica was discovered by G SCHIAPARELLI in Italy on 10 November 1879: The opposition day in the year was 12 November 1879 around 20h GMT. Its nice 126 year recurrence occurred in 2005 when the opposition effect of Olympus Mons was seen well in Europe. So it is impossible to observe the opposition effect in this cycle at the Oriental regions where we must wait other cycles. Note here that the so-called orographic cloud over Olympus Mons which observable from around λ =000°Ls to around λ =200°Ls is nothing to do with the Nix Olympica.

As another case, such a difficulty occurs when a dust storm emerges. Since this is very local, it is only pinned down in a region of the Earth. The 1956 Noachis dust storm was an extraordinary case seen from Japan, but it is well known the emergence of the dust was bluntly treated in the book "The photographic Story of Mars" (1962) by E C SLIPHER.

The case of the Hesperia great dust storm caught in Japan in 2001 was first doubted from other countries: From our side the dust proved itself to be the one to be called *global* around from 1 July 2001 because it largely invaded the northern hemisphere deforming the area of Elysium, whereas in the Yahoo column it was said it must not be great and so on. Even such a sensible person like Frank J MELILLO also suggested as if it was not global but just planet-encircling on 12 July because of no effect on the northern hemisphere from their region. It was later on 7 August that David MOORE cautioned anybody should pay attention to the CMO Web Site such that: "it is from Japan with excellent images and shows the start of the dust storm."

In 2007, another Noachis dust emergence was shot from the US. This implies that the initial stage of development could not be observed from Asia and Europe. So if any collection of personal work on Mars in 2007 is made in Asia and Europe, it will lack in communicating the right activity of the dust event, especially its initial stage. Even if afterward one could record the secondary dust disturbances near Solis L and featured them, the personal collection may give a misunderstanding to the newcomers. This kind of presentation is just a style of "going-my-way" not to say "nationalistic". In a word any personal collection in the case of Mars cannot be complete.

So everything about Mars should be globalistical or *international*. But we should say it is not necessarily international for one station to pick out several images obtained around the world to say something. The observations must be difficult or erroneous for those who believe that any dust must propagate just like a Hurricane or Typhoon. We should remember that the plan of the IPP (International Planetary Patrol, from 1969 for several years) was also not necessarily international to the extent that it was intentionally led only by the Lowell Observatory. If one head collapses, other branches similarly are abandoned. They were thus not organised by the internationally independent systems.

The reason why the Lowell Observatory abandoned the international patrol was perhaps because some spacecrafts became to go round the planet. However the HST or MGS or other instruments are not necessarily said international. The HST works just voluntarily and the MGS and something like that are restricted to a specific Martian hour. Have you ever seen Olympus Mons protruding at the morning edge on some image? It is ridiculous for any amateur to stop observing just because the spacecrafts began to put forward a rotating image of Mars every day.

Ironically thanks to these images of the spacecrafts we are nowadays free from the obsession to squeeze out the details on the surface. Such a restraint is now unimportant. Instead what is important now is to observe the evening and the morning side as well as the polar regions. Namely there remain more difficult matters to observe. Especially the continuous observations of the morning terminator is pressing.

As such, the observation of the planet Mars is not easy depending on the timing and on our consciousness.

上 星は未だ視直徑が小さいので、一般的な事 柄を暫く續ける。

* * *

火星の觀測が易しくない、というのは、何も火星の模様は見辛いとか、捉えがたいという意味ではない。これは反語の意味であって、案外惑星観測者の間でも火星なども簡單だと想ってある。またもが多いのでは無かろうかという意味である。またと内心思っている人達をナンようると考えている人達は自己完結型で、であると考えている人達は自己完結型で、であると考えている、後っている人きは自己完結型で、であると考えている、後っているもけではない。何も遠い話をしているわけではない。の観測だけで事足りるとわけではない。何も遠い話をしているわけではない。何も遠い話をしているわけではない。何も遠い話をしているわけではないた。私の經驗からいうと更に火星の専門家でないナショナリストの惑星觀測家は今も世界に跋

扈していて、他國の觀測を顧みない傾向は依然あるし、或いは餘所の國で撮られた影像を並べる場合も、恰も自國から指令を出しているかのように自國流に云々する輩もいるのである。

火星觀測の難しさの問題は火星の自轉が地球のそれに似ていて、シンクロナイズしている為というのが第一にあって、一度や二度、一日や二日では埒が開かないという厳然たる事實に據る。火星が回轉するとほぼ同じ速さで地球が回轉してしまうから、火星の同じ面を何度も觀測せざるを得ない替わりに、新しい場面にはなかなか出會さない。從って、相當インターナショナルな或いはグローバルな觀點に立たないと、全體像は摑めないようになっているのである。難しさの大きな原因の一つはここにある。

例えばオリュムプス・モンスの衝効果などは位 相角ιが約8°以下でしか見えないから廿日と保た ない。一周を見るのに四十日ぐらい掛かるから自 然これを見る機會に惠まれない地域が出てくるの である。ニクス・オリュムピカというのはスキア パレッリが1879年十一月10日に發見したものであ るが、これは1879年の衝がたまたま十一月12日 20hGMT頃に當たっていて歐羅巴から見えたから である。佐伯恆夫著の『火星とその観測』には少 なくとも七不思議があるが、その一つはニクス・ オリュムピカの記述が實觀測に基づかないものと 思われることである。多分佐伯氏は、衝効果に巡 り合っていないのではないかと思う。衝効果は所 謂オリュムプス・モンスに掛かる夕雲とは違うの である。尤もW雲の分析も不充分であるが。近い 例では1879年の126年回帰の2005年の場合、矢張 り歐羅巴で見られているが日本では見られなかっ た(一方、2003年や1988年の大接近の時は日本か ら見られている)。

最も端的にこのことが響くのは黄雲が出た場合であろう。發生は局所的であるから地球上では殆ど一點でしか觀測されないからである。1956年のノアキス黄雲の發生は日本から見られた著しい例であるが、例えばECスライファーの本では素っ氣なく扱われているのはその例である。2001年のヘスペリア黄雲についてもその初期に於いては日本の觀測に疑義が出ていた、というか、Yahooのサイトなどでは最初は大黄雲ではあるまいという

様な言説や、われわれからは七月1日には既に北半球にも延びるglobalな大黄雲であることは明白であったにも拘わらず、もたもたした議論が續いていた例がある。メリッロ(FMI)氏の様なセンスのある人でも七月12日で依然、これは北半球に影響がないからplanet-encirclingであってglobalでないというような言説がみられる。ムーア(DMr)氏が、CMOのサイトをみよ、それはIt is from Japan with excellent images and shows the start of the dust stormと書いたのは何と八月7日であった。

2007年の個人の写真サイトでは(ノアキス黄雲が發端であるに拘わらず)單に見えなかったという理由でソリス・ラクスの邊りの後の二次的黄雲が發端であるかのような扱いをしている例がある。ナショナリスティックというより我が道を行くタイプである。こうなると個人写真集など殆ど意味を成さない、愚劣なものである。

詰まるところ、インターナショナル乃至グローバルな動きがなければならないわけだが、IPPなどはそうだったかというとそうでもなかった。あれはローエル天文臺主導で、一箇所が轉ければ全體が轉ける程度のものであったからナショナリスティックであったのである。轉けた原因は美國主導で火星に宇宙船が飛ぶ様になったからであるが、これはインターナショナル、或いは言葉を換

えて、グローバルであるかというと、必ずしもそ うではないところがミソである。外國にも日本に も居たが、spacecraftが飛ぶ様になるようになった から觀測が意味がないから止めたというのは、ほ どよくグローバルの意味合いを理解していない聯 中である。全面影像が出來ていて回轉するじゃな いかというわけであるが、月の全面写真なら縁が 凸凹になっていることを知っているであろうに、 あんな圓っこい火星をオリュムプス・モンスを保 っている火星の全面写真と信じているのであろう か。火星の朝方の重要性は幾ら言っても言い過ぎ では無いが、いまだHST以外嘗て朝方込みのspace craftの全面影像が出たことは無いのである。HST も得手勝手で大事なときに動かないことは2001年 に實證済みである。たまたま當たると鬼の首でも 取ったように騒ぎ立てる。HST帝國主義である。

こうした周回船やHSTが飛ぶようになって逆説的に言えば、いまでは火星の細かな模様など然程重要ではない。重要なのは朝方や夕方や極の現象である。これは文字通り難しいものである。逆に言えば難しいものが残っているのである。特に朝方が重要であろう。

上に述べたようなことは火星にはタイミングの 難しさや、目の附けどころの難しさが残っている 左證である。

便り

Letters to the Editor

• · · · · · Subject: Current Solar AR Received: Fri 22 May 2009 05:33:09 JST

Hi guys, Here's a couple of shots of the current AR and it's filament, one wide field and one a little closer.

O····Subject: solar images 21st May Received: Sun 24 May 2009 00:15:44 JST

Hi guys here are a few of the two Active Regions, Along with a white light showing the associated faculae near the off limb. Best Wishes

O····Subject: Solar images 22nd May Received: Sun 24 May 2009 00:36:43 JST

Hi guys, Still plenty of activity. We have a new small AR now, as the old AR1017 goes over the top. A nice prominence erupted too, a little bit of an unusual one as the surface looks more deeply disrupted than normal. The new AR can also be seen on the full disc shot at the 8 oclock position as a bright spot. The mono shot of it is

10x the magnification of the full disc image. Best wishes

O····Subject: solar images 23 May Received: Mon 25 May 2009 08:06:57 JST

Hi guys here are a few images from the 23rd. Note the two "proto" sunspots associated with the new AR (they were gone this morning 24th). Best wishes

O····Subject: 24th May Active regions in two filters Received: Tue 26 May 2009 09:27:43 JST

Hi Guys, Here are images of the current Active regions, taken with two different scopes and filter systems. ... The resulting image signatures are quite different. I am guessing that the .5A is picking up fibrils higher in the chromosphere, which is then actually obscuring some of the lower detail where the Dynamic Fibrils are shown bunched in the .65Å images. Comment invited.

O····Subject: solar images 25th May 2009 Received: Wed 27 May 2009 19:36:06 JST

Hi Guys, The Active Regions are still active, with the Easternmost one building a little, but the filament on the Western one is now "fading". Best wishes

O····Subject: Solar images 26th May Received: Thu 28 May 2009 08:28:18 JST

Hi Guys, This is my last image of the entertaining Active Region with it's large filament. The filament has lost

its darkness although its position is still active. There is a tiny bit left visible in the coronado .5A scope image at 1335ut., as a small dark smudge on the bottom edge of the region. The later active region to the east building a little I think. Best wishes

O····Subject: Prom alert Received: Fri 29 May 2009 18:34:59 JST

Hi guys there is a very large tenuous prom at the 4oc posn (terrestrial view), good luck

O····Subject: solar images 29th May Received: Sat 30 May 2009 22:23:10 JST

Hi Guys, Here are a few images from the 29th. SOHO shows a big event that day in UV, there was also a very large but faint prominence at 0834 in H α . Just to the north of the large one there was an unusually bright small prominence. "They" seem to have stopped allocating numbers to the spotless Active Regions, so the new one on the Eastern Limb I've called Abbe, A nice Idea I got from reading Sir Patrick Moore's journals, where he would allocate a new planetary feature with a name like elongation "Eric". Abbe looked very Nice today too, the 30th. Best wishes

O·····Subject: Solar images 30 th May Received: Sun 31 May 2009 09:14:48 JST

Hi Guys Here are some images of the Prominences on view yesterday morning, and Active Region Abbe, which is developing nicely. •••

O····Subject: solar flare Received: Mon 01 June 2009 16:40:35 JST

flare happening now 0740 ut in AR Abbe

O····Subject: AR1019 Progress Received: Tue 02 June 2009 03:07:43 JST

Hi Guys, AR1019 has made a rapid rise to WOW!! Small spots appeared yesterday, along with bright $H\alpha$ activity. But today it really took off I had the pleasure of watching a solar flare brighten in a few seconds, and rapidly expand and change shape. I have some time lapse images of the event to process. Anyway, here are some images of it's status yesterday, and a couple from today. The $H\alpha$ image shows the region of the flare. Oh yes, yesterday also produced a peculiar large fish skeleton shaped prominence. Best wishes

O····Subject: images AR1019/proms 1st June Received: Wed 03 June 2009 04:38:06 JST

Hi Guys here are some more images from the 1st, including the animation of a flare in AR1019. I was rushing to set the capture of the time lapse as it hit it's brightest. There were a couple of more brightenings in the next 20 mins, ie the length of the animation. The region is a different character today. Images to follow. The file of the GIF is a little larger than normal, but I think you all have Broadband. Best wishes

O····Subject: solar images 2nd June Received: Thu 04 June 2009 07:09:25 JST

Hi guys, The fantastic weather we have been having here in the UK, has very nicely coincided with the entertaining AR1019, We did have a fine morning today the third, but the forecast is now not so good. The fine North Eastern Prominence has been around for a few days, and is shown here imaged twice, about 8 hours apart. The

large image 0857ut of the fabulous AR1019 is a 5 frame montage. As they say "crackling with flare activity". I have also included a single image taken later in the day in lesser seeing. The actual associated sunspot group, is shown as imaged off an Intes wedge with a green Baader solar continuum filter and IR blocker. •••

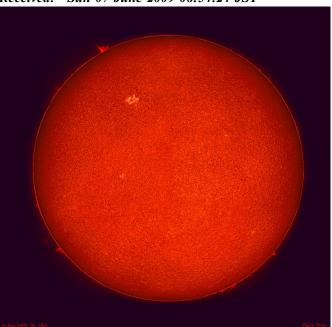
O·····Subject: solar images 3 Jun Received: Fri 05 June 2009 05:29:56 JST

Hi Guys, This is basically an update on current activity. AR 1019 is still performing nicely and the Prominence at the 11 oc or PA approx 15° is maintaining station. It was looking a little weak though this morning the 4th, but in this image it looks ready for blast off. Best wishes

O····Subject: solar images 4th June Received: Sat 06 June 2009 07:22:43 JST

Hi Guys, Here are some images of the solar action on the 4th. \cdots

O·····Subject: Full sun 2-Jun-2009 Received: Sun 07 June 2009 06:54:24 JST



Hi Guys, Rain so processing some longwinded data from the 2nd. It's a 6 frame montage of the proms and the full solar disc. The image is rather large about 1500 pix sq, so you can zoom in for a closer look at AR1019 on that day. •••

O·····Subject: solar images 7-Jun- 2009 Received: Tue 09 June 2009 04:26:14 JST

Hi Guys, Here is my last image of AR1019 as it goes over the limb. The activity is less but it has expanded. There is a wide active area coming onto the disc with a huge filament. It has been cloudy here for the past two days so nothing seen of it since the image was taken. Lets hope this activity is a wake up sign, and it does not go back to sleep. I did a wedge image in a green continuum filter to show an faculae off near the limb. I have twinned it with the H α for easy comparison. Best wishes

O····Subject: solar images 11 June Received: Sat 13 June 2009 17:04:24 JST

Hi Guys, Here are some images of the $H\alpha$ solar activity on show on the 11th. There is a vast active area in the Northern hemisphere. ••• There was beautiful prominence group on the South East limb shown here, imaged from the same set-ups as the active region. Best Wishes O····Subject: Solar images 13th June Received: Mon 15 June 2009 17:38:44 JST

Hi Guys here are a few images of the activity from the 13th Showing a large active area with it's nice filaments, moving to the edge of the solar disc. The large prominence is shown changing throughout the day.

O·····Subject: Solar images 14 june Received: Tue 16 June 2009 07:19:23 JST

Hi Guys The sun had a fairly quiet day on the 14th. The active regions were not too active, but it was nice to see a new one on the South East of the disc. Best wishes

O····Subject: Solar images 14 june Received: Tue 16 June 2009 07:19:23 JST

Hi Guys The sun had a fairly quiet day on the 14th. The active regions were not too active, but it was nice to see a new one on the South East of the disc. Best wishes

O·····Subject: solar activity 15th June Received: Tue 16 June 2009 19:41:11 JST

Hi Guys, The newer AR just spawned the fine filament shown here in three different magnifications, from 39", 63" off the Coronado, and 108" focal lengths from the vixen and Daystar / ss hybrid. The old AR approaching the limb is still a handsome beast. Best wishes

O····Subject: solar images 16th June Received: Thu 18 June 2009 05:02:50 JST

Hi Guys, Sorry only two from the 16th, things were a bit quiet. A decent Prom was in shot with the North Western active region. It has been cloudy here today the 17th, so I have missed the nice filaments in the Southern AR, shown on this website.

http://nsosp.nso.edu/VIDEOIMG/ospan/latest hl.jpg

O·····Subject: solar images 19 june Received: Sat 20 June 2009 07:19:34 JST

Hi Guys The surface looked a bit quiet today but there was a nice prom on the NE limb, so I made a fuss of that. The image with surface detail was taken with a Coronado smax scope 60mm DS with 2 inch straight blocking filter and 4x powermate, plus Lumenera 075m $CCD.\cdots$

O····Subject: Prominence Animation Received: Sat 20 June 2009 23:28:03 JST

Hi Guys here's an animation of the active prominence of the 19th. I think the title could be "beam me up Scotty and stop messing about". The animation is over 20 minutes, losing 3 of the 20 frames taken in the time lapse, due to cloud. The still shot is frame 3. Best wishes

O····Subject: Solar Filament 20th June Received: Mon 22 June 2009 03:08:00 JST

Hi Guys, This filament was about the only photogenic item on the sun today. It is shown here from my 60mm .5A Coronado, · · · Best wishes

Dave TYLER (デヴィド・タイラー Bkh 英)

●・・・・・Subject: Re: 1956年のレタリング Received: Sat 23 May 2009 11:24:48 JST

政次様、メール有難うございました。私の 火星のスケッチ、レタリング入れていただいたら えらく立派になりびっくりしております。もっと まじめに頑張ればよかったななどと今頃反省して

おります。写真のほうも結構見られるなと思いま した。感謝のほかありません。とりあえずお礼ま

○・・・・・Subject: Re: ラオコーン斑点の周辺の変化 Received: Thu 04 June 2009 11:11:38 JST

政次様、メール拝見いたしました。いろい ろとお骨折りまことに有難うございます。画像は 奇麗に送られてきております。自分ではあまり自 信のない点も多々ありますが、当時は一生懸命だ ったつもりですのでこうして整理して頂けて本当 に感謝しております。とりあえずお返事まで。

村山 定男 (Sadao MURAYAMA 東京Tokyo)

• · · · · · Subject: Jupiter during daytime (successful test) Received: Mon 25 May 2009 I1:24:16 JST

Hi Guys, I was wondering, if it is possible, to get Jupiter RGB's during daytime with my 8" Newtonian, so I tried it last weak from my balcony in Ludwigsburg and was successfully...

http://www.sternwarte-zollern-alb.de/mitarbeiterseiten/kowollik/jupiter/index2009.htm Sorry, had no time to translate the pages. I am prepearing 4 talks for a Amateur Congress next weak in Germany... Cheers

Silvia KOWOLLIK

(シルウ、ィア・コウ、ォッリク Ludwigsburg 徳)

•••••Subject: Jupiter J090522 J090523 J090524

Received: Tue 26 May 2009 01:28:32 JST

連日晴れ、木星画像が撮れています。

O····Subject: Jupiter J090601 J090604 Received: Fri 05 June 2009 18:25:18 JST

最近の木星画像です。屋上に風がある時は像が ブレ、悪いイメージになります。永続白斑「BA」 はやや赤みがあるものの、明るさが無い。

O·····Subject: Jupiter J090608 Received: Wed 10 June 2009 12:43:04 JST

久々に透明度が良く、メタンバンドやUV画像が 撮れました。BAの輝度が無いが、メタンバンド ではしっかりしています。本体前部に小白斑があ るようです。メタンバンドではSEBnに明るいも のがみえます。北極部にメタンで明るい白斑はUV では暗く、カラーではオレンジ色に見えます。

O····Subject: Mars Ak21May Ak22May Ak08Jun09 Received: Wed 10 June 2009 19:01:27 JST

こんばんは、日本では梅雨入りの季節になりま したね。その後の火星画像です。

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/090521/Ak21May09.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/090522/Ak22May09.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/090608/Ak08June09.jpg
....Subject: Jupiter J090612
Received: Sat 13 June 2009 18:48:59 JST

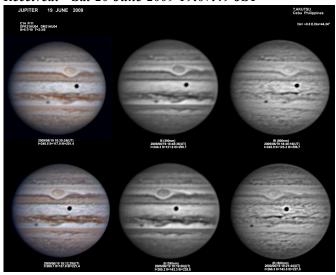
セブは雨期季節に入り、雲が多くなり、星が見 えません。今朝は少しの晴れ間から木星が見えて いました。しかし、気流は安定せず、風もあり、 イメージが悪かった。SEBは変化は見られず、NEB には大きなリフトがあり、東西の伸びきった活動 が見えます。

O·····Subject: Jupiter J090617 Received: Thu 18 June 2009 13:31:07 JST

何とか晴れ、画像が得られました。NTZの赤み

の模様は何でしょうか?

O····Subject: Jupiter J090619 Received: Sat 20 June 2009 19:07:49 JST



GRS周辺の様子が得られました。SEBの活動は 静かなのに対し、NEBが活発になってきました。 STrZの赤みの暗斑が小さくなりました。久津 **阿久津 富夫**(Tomio AKUTSU セブThe Philippines)

• · · · · · Subject: The brightness of Saturn's rings... Received: Tue 26 May 2009 12:44:41 JST

All - I'm pretty sure many of you are aware of this. I have attached a short animation of the rings' brightness. First one was taken on March 18th, 2009 (shortly after opposition) and the second one was taken on May 20th, 2009. This is due to the opposition effect. Also, see the different intensity of the rings' shadow on the globe and also with a slight tilting.

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

• · · · · · Subject: Ganymede Occulting Io - Received: Tue 26 May 2009 18:32:36 JST

Hi all, This morning I was able to capture my first Galilean Moon occultation, when Ganymede passed in front of Io, covering about 40% of the volcanic moon. The seeing was reasonably stable, maybe 6.5/10 and the morning started off beautiful and clear. Some cloud bands came through right at the wrong time, ruining some of the sequences right in the middle of the occultation. Of course it cleared completely after the event was all over. Despite the annoying clouds almost ruining my chances of capturing anything of the occultation, I was able to image enough of the event to put together this 32-frame animation, covering 33 minutes of elapsed time. Detail and albedo features can be seen on both moons. Ganymede Occulting Io Animation (250k gif) For more info about my capture and processing settings for this event, and why it's even so special at all:

 $\label{looking.prop:matching} $$ $$ http://www.mikesalway.com.au/2009/05/26/ganymede-occulting-io-my-first-galilean-moon-occultation $$ Thanks for looking. $$ $$$

Mike SALWAY (マイク・ソルウェ NSW 澳)

Received: Wed 27 May 2009 13:45:09 JST

Hi everyone, I had a go at Mars this morning but the seeing was so bad that I did not even bother capturing through the G and B filters. For the attached image I used 100 frames out of a total of 2400. Best regards,

Stefan BUDA (スチーウ゛ァン・フ゛タ゛Melbourne 澳)

• · · · · · Subject: Saturn 28th may 2009 Received: Sat 30 May 2009 06:36:53 JST

Hi all, The angle of sunlit on Saturn (Ds) is now only 1,1°S and therefore the rings are very dark; the difference is striking with images taken a few weeks before (althought there was also an opposition effect)

http://www.astrosurf.com/pellier/S090528-CPE

I just regret so much that we're not going to see the equinox next summer.

O····Subject: Mars images 1st june 2009 Received: Mon 01 June 2009 20:05:14 JST

Hi everyone, This was just an observation for fun after a Jupiter session, but the results turned out a bit curious - http://www.astrosurf.com/pellier/M090601-CPE

Syrtis Major looks obliterated by a bright zone on the images... let's check MRO images next weeks to see if anything is going on there. However, of course, the objective quality of these shots is very poor... Nonetheless, this was my earliest Mars observation ever (128 Ls degrees before opposition). Best wishes

O·····Subject: Jupiter images 1st june 2009 Received: Mon 01 June 2009 23:17:06 JST

Hi all, Here my first Jupiter of the season. Already it's several degrees higher than last year... Seeing stabilized a bit during twilight.

http://www.astrosurf.com/pellier/J090601-CPE Best wishes

Christophe PELLIER (ク リストフ・ペ リェ nr Paris 法)

• · · · · · Subject: Impressive prom, May 31st Received: Sun 31 May 2009 22:16:51 JST

Hi all, The Sun's putting on quite a show today...



O·····Subject: Re: solar activity 15th June Received: Tue 16 June 2009 19:45:54 JST

Great images as usual Dave. You're putting me to shame as I'm not keeping up with processing or sending mine out. Consequently, I'm going to re-invent my time-

• · · · · · Subject: Mars image 26052009

line and start from yesterday: Here is the filamentplus a couple of images of one of the prominences which had an overlap into a filament on the main disk.

Best regards,

Pete LAWRENCE (ピート・ローレンス Selsey 英)

• · · · · · Subject: Saturn 2009.05.28 w/ double transit (Enceladus, Rhea) Received: Mon 01 June 2009 00:56:31 JST

Dears, For my 20th observation of this apparition, i finally imaged a transit despite average conditions. Moreover, i got 2 satellites transiting. And even better, i caught Enceladus in transit, which i never saw clearly on all of the images i've seen for this apparition!

http://astrosurf.com/delcroix/images/planches/se.php?y=2009&m=5&d=28 And another image with north up, and Dione and Tethys brightness enhanced:

 $http://astrosurf.com/delcroix/images/saturne_20090528_2150_4270_ondx2_1_3_1-5_8_14_1_sat2.jpg$

Winjupos confirms Enceladus position; i think i caught it despite its small apparent diameter - 0.074 arcsec - because i used a red+infrared filter, which increases the contrast between Enceladus (with a very high albedo) and Saturn. Furthermore Enceladus transited in front of dark NEBn. Clear skies,

O·····Subject: Jupiter & Io 2009.05.29 Received: Tue 02 June 2009 00:43:13 JST

Dears, Here is my first Jupiter for this opposition taken 3 days ago, under very average conditions:

http://astrosurf.com/delcroix/images/planches/je.php?y=2009&m=5&d=29 Hopefully i will get better images when from here (France) i will be able to image Jupiter at its maximum elevation at ... 33° high ... Clear skies,

O·····Subject: Saturn, 5 satellites and dark spot 2009.06.02 Received: Fri 05 June 2009 06:29:43 JST

Dears, Taken at twilight, but high pass red filter works well in that case, a composite image (satellites brightness enhanced) with from left to right Dione, Enceladus, Saturn and a dark spot at SEBn, and from top to bottom Rhea, Tethys and Iapetus (for once close to the planet):

 $http://astrosurf.com/delcroix/images/saturne_20090602_sat_2600_4350_ondx2_1_3_1-5_9_14_1_lev_sat.jpg$

The single images and technical details are all below - the dark spot was detected in an animation, and its longitude fits with the drift rate i calculated for the dark spot which has been visible for months. Note that its size is rather large, around 8000x3000km.

http://astrosurf.com/delcroix/images/planches/sf.php?y=2009&m=6&d=2

O·····Subject: Saturn, storm and satellites 2009.06.03 Received: Sat 06 June 2009 06:19:55 JST

Dears, Under acceptable conditions, i imaged Saturn with the storm in storm alley which has been seen for months:

http://astrosurf.com/delcroix/images/planches/se.php?y=2009&m=6&d=3 Another image with Enceladus and Dione enhanced:

 $http://astrosurf.com/delcroix/images/saturme_20090603_sat_2650_4434_ondx2_1_3_1-5_9_14_1_lev.jpg$

Last a composite image with the saturn image and at prime focus other satellites, from left to right Tethys, Saturn, Dione, Rhea, Iapetus and Titan:

http://astrosurf.com/delcroix/images/saturne_20090603_sat_400_502_ond_3_6_3.jpg

O····Subject: Jupiter and Io transit 2009.06.04 Received: Sat 06 June 2009 07:09:50 JST

Dears, Jupiter was imaged under good conditions despite a slow-moving turbulence and low elevation (25°), with GRS and Io transiting: Note here the infrared image, with fine details and the bright Io disk just at meridian: http://astrosurf.com/delcroix/images/planches/jf.php?y=2009&m=6&d=4

Imaged earlier at prime focus, Europa, Callisto, shadow of Io leaving Jupiter's disk:

http://astrosurf.com/delcroix/images/jupiter_20090604_sat_800_1000_ond_3_8_2_lev.jpg

O····Subject: Saturn, 3 spots and 4 satellites 2009.06.11 Received: Mon 15 June 2009 20:38:27 JST

Dears, Despite Saturn being past quadrature, i was able under favorable seeing to image from left to right on the following composite image Saturn with spots, Tethys, Enceladus, Rhea and Dione;

http://astrosurf.com/delcroix/images/saturne_20090611_sat_2650_4446_ondx2_1_3_1-5_10_15_1_lev.jpg

Storm in storm alley is obvious, brighter i believe than these last months. I also imaged the dark extension north of SEBn, and the EZn spot, all three beeing where my drift rates calculation expected them to be:

http://astrosurf.com/delcroix/images/planches/se.php?y=2009&m=6&d=11

O····Subject: Saturn and satellites 2009.06.12 Received: Tue 16 June 2009 06:02:39 JST

Dears, Again Saturn at dusk with a steady sky, with from left to right on this composite image Tethys, Dione which went out of eclipse during my observations, Saturn and Rhea:

http://astrosurf.com/delcroix/images/saturne_20090612_sat_2700_4460_ondx2_1_3_1-5_10_15_1_lev.jpg

All technical details are here, no spots where detected: http://astrosurf.com/delcroix/images/planches/se.php?y=2009&m=6&d=12 Clear skies,

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

• · · · · · Subject: Re: 2009 05 31 Sun Received: Mon 01 June 2009 05:13:43 JST

2009 May 31, 1610UT - 1725UT Solar h-alpha, PCW Memorial Observatory, Zanesville, Ohio USA. DS 60mm Maxscope, LXD75, 21-7mm Zhumell. Sketch created scopeside with black Strathmore Artagain paper, white Conté crayon and pencil, white Prang watercolor pencil, black oil pencil. Temp: 23°C-24.8°C, Humidity 48%, Seeing: Wilson 3, Transparency: 2/6. Clear with haze, winds N ~8mph. Alt: 59.9, Az: 118.2

Initial impression was a bit of disappointment because the huge prominence that others are reporting wasn't apparent to me at the eyepiece. Later today, that large prominence was reported to have dissipated by 1600UT, so I believe I had just caught the tail end of it. It was to the northwest and at 1615UT, all that I could see in that area with our poor transparency was a faint wisp of a prominence. There were three areas of plage; one nearly midway across the disk and a second one to the east, both in the northern hemisphere; and another small area $\sim 150^{\circ}$ just inside the southern limb. This southern one makes me wonder if it could be an ephemeral region. Three fairly obvious filaments could be seen, the largest nearly reaching the small prominence at ~190°. The center of the disk was full of the dark hairlike fractures of fibrils or spicules, making a beautiful scene when mo-

ments of better sky conditions would allow for it.

Erika RIX (エリカ・リックス Zanesville OH 美)

• · · · · · Subject: Saturn 2009/05/25 Received: Mon 01 June 2009 08:56:36 JST

Saturn image from May 25, Tethys can be seen on the left and Dione over the planet's disk http://astrosurf.com/pcasquinha/sat 090525.jpg Regards

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

• · · · · · Subject: Jupiter and Neptune Conjunction 2009 May 29 Received: Mon 01 June 2009 13:05:47 JST

This marked the start to my imaging of Jupiter this ap-

parition. This is the first of the three conjunctions that will occur between Jupiter and Neptune this year - a rare "triple conjunction" where the nearer planet makes three passes of the more remote one in one apparition. The other two conjunctions will occur on July 13 and December 20. Closest approach was actually on May 25. I imaged the scene on May 28 and 29, but the latter had better conditions and a more pleasing arrangement of moons

O····Subject: Jupiter 2009 May 29

-CMO#219(10 June) & #220(25 June 1999)pp2531~2562 ---

十年前の六月には最接近直後でCMO#219とCMO#220が発行された。CMO#219には、CMO MarsReport1998/99 #12と五月後半の観測報告が纏められている。五月始めに最接近をすぎ てδは31Mayには14.4"まで落ち、λも147°Lsとなった。φは23°Nとなり、北極への傾きが大 きい見え方が続いていた。この期間の報告者は24名を数えた。日本からの観測では、エリュシ ウムの朝方からシュルティス・マイヨルが午後に見える景色までを見ることができた。北極周 辺の明部・マレ・アキダリウムと朝霧の様子などが捉えられた。ヨーロッパ、アメリカの観測 はからは特記すべき現象は得られていない。 CMO#220のCMOMarsReport1998/99#13は、 六月前半の観測報告で、火星は6Juneに留となり順行に移った。δは15Juneで、12.9秒角に

落ち、季節はλ=155°Lsまで進んだ。梅雨の季節にもな り、報告者は18名と減っている。日本からの観測では、シ ヌス・サバエウス中央から、エリュシウム中央までの景色 が見られた。ヘッラスの様子・ケブレニアの明部・北極域 周囲の様子などが取り上げられている。ヨーロッパの観測 はマレ・アキダリウム中心。アメリカの観測は、ソリス・ ラクス辺りの経度。この期間にALPOから、間違えたdust alertが出ている。 CMO#220には他にComing1998/99 Mars (11)として、"Ephemeris for Observa- tions of Mars in 1998/99. V" A NISHITA が掲載された。

LtEは二号纏めて、外国からは、D_PEACH (UK), A NIKOLAI (Germany), 賴 武 揚 (Taiwan), F_MELILLO (USA), E_SIEGEL (Denmark), S_WHITBY (USA), T CAVE (USA), M_WASIUTA (USA), D_PARKER (USA), J_DIJON (France)の各氏から、国内からは、阿久津(栃 木)、比嘉(沖縄)、岩崎(福岡)、伊舎堂(沖縄)、日岐(長野)、 大場(山形)の方々から便りが寄せらた。

COMMUNICATIONS IN 東亞天文學會『火星通信』since 1986

OBSERVATIONS Published by the OAA Mars Section

CMO Mars Report # 13 (1998/99)

1999年六月前半(1 June~15 June)の火星面観測 Martian Surfaces in the First Half of June 1999 from 1 June 1999 (148° Ls) to 15 June 1999 (155° Ls)

南 政 次 Masatsugu MINAMI シーズンの終焉を迎えた様な感じである

バ月2日には九州が入梅、3日には近畿まで北上した。福井は7日に梅雨入りした。然し、翌日か は晴れが顔き、妙な具合であったが、中旬と23日から曇天に入った。沖縄はその23日に梅雨明けし

夏日の晴天が纏いている様子で、期待が持てる。 製剤可能時間が短くなったこと、視直径が後退したこと、梅雨に入ったことで、當然、觀測は全計

工物等、メリンている。

Thus, and then Mars become observable just in the evening. The motion was stationary on Thus, and then Mars becomes going down to the south. The apparent diameter δ was 14, access on 1 June, and deteracted the 0.12 % in 51 June. The season proceeded from 148 1 is 1515 Ls during the period. The central latitude ϕ kept 25 %, and the northern hemisphere has still bee fixing to us. The phase angle ϵ went up from 28 to 35°. On 27 July, Mars will attain the easter quadrature, and then it will be observable only in the western sky.

The rain season has set in at the Kyushu district from 2 June, and went eastwards to the Kink listrict on 3 June. The Fukui area received the first rain fall (of the rainy season) on 7 June, but stil the fine days continued to visit. However from 23 June it has been raining continuously. On the ve day on 23 June, the rainy season (started 10 May) at Okinawa ended, and we hear the sunny sum lays prevail there since then.

The observations this period were not much carried in number because the observereased, the apparent diameter went down, and the rainy season set in.

CMO#219には、「一點點・一天天 - 偽火星圖-」南政次氏がある。当時発刊のある書物に 掲載された古い火星図の引用に気が付き、変化している現状とは違う偽火星図を、誰もが目に する出版物に掲載するのは、詐欺行為であり、火星観測を志す者には有害で、観測や概説には 「事象の推移」を常に取り入れる様にとのことであろう。

TYA(46)は、CMO#073(25June1989)からで、CMO#220に掲載されている。観測報告は無 く、「LtEスペシャル」の二回目として、1998年ハ月中に、編集部に寄せられた便りが集中し て掲載された。コラム記事には「夜毎餘官XIII・紅星」が見られる。

http://www.hida.kyoto-u.ac.jp/~cmo/cmo/220/tya046.html

村上 昌己 (Mk)

Received: Thu 04 June 2009 06:11:14 JST

Taken the same morning as the C-5 picture of the Neptune conjunction, this is the C-14 image of the planet itself. An unspectacular result even for the altitude, hopefully there will be better to come. The phase is quite apparent.

http://www.davidarditti.co.uk/astro/images/jupiter/09/jup2009-05-29-DLA.jpg **David ARDITTI** (デヴィット・アーディチ Edgware ME 英)

• · · · · · Subject: Mars 2.6.2009 Received: Wed 03 June 2009 19:19:49 JST

Dear Masatsugu, on 18. May 2009, i made my first image of the opposition preriod 2009/2010. In the attachement, i send you 3 images from 2. June. Further exporsures from 18.5, 19.5., 27.5. and 1.6. will follow soon. With best wishes

Camera: DMK 21AF04

Filters: Baader IR-Pass-Filter >685nm

Telescope: 12,5" Newton with Televue Powermate 5x + 2 (or 4) 40mm extension-tubes

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/090602/RGh02June09.jpg

O·····Subject: Re: Re: Mars 2.6.2009 Received: Thu 04 June 2009 03:00:05 JST

Dear Masatsugu, thank you for your response. Yes, mars has now grown again to a size, where seeing-effects does not make him "invisible". First, i suspected the dust the dust after the global dust alert in april, but all my images show a clearly surface of mars. So i hope, this situation will be remaining for the next months. • • • With best wishes,

O····Subject: Mars 8.6.09 Received: Mon 08 June 2009 19:15:53 JST

Dear Masatsugu, after some days of rain i can send you new image. Many clouds and a sharp wind (6-10 m/s) made it difficult to get a satisfying result. So, no polar cap was visible an the resolution of the image is poor.

With best wishes.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/090608/RGh08June09.jpg

O·····Subject: Mars 13./14. June Received: Sun 14 June 2009 21:24:43 JST

Dear Masatsugu, two images from 13. and 14. June showing Tharsis. On 13. June, sky was very clear, but the contrast on mars was low. Today, 14. June, conditions were less good, thin clouds made bad seeing and some ugly artefacts (the german amateurs call it 'onion rings') on the mars disc. With best wishes

O·····Subject: Mars 20.6.2009 Received: Sat 20 June 2009 17:21:38 JST

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/090620/RGh20June09.jpg

Ralf GERSTHEIMER (ラルフ・ケールシュトハイマー

Habichtswald 德)

• · · · · · Subject: Update on IWCMO scientific program Received: Mon 08 June 2009 22:29:09 JST

Dear all, You will find on the following link:

http://wwwusr2.obspm.fr/~biver/IWCMO/IWCMO_abstract.pdf the list of proposed talks (+ posters, abstract) that I received up to now. Suggestions have been given in our previous e-mail exchanges about speakers (several among us) for the various topics, but I have not received precise titles and abstracts for their talks. I may have overlooked some mails within the permanently increasing stream - especially due to this year "IYA 2009" activities. We can invite a few famous speakers and/or participants with limited income... (e.g. waving registration fees,...) to fill out the program.

Next week, I hope to send the second annoucement with the registration form and e-mail it to all of those who have shown interest in this meeting - it will be also the time to call again for contributions - expect the registration fee to be around 70 Euros, including 3 meals, coffee breaks, bus transportation to visit Juvisy,...

Even if you cannot attend the meeting, do not hesitate to go on advertising it and suggest speakers - especially for the topics we suggested you to take care of a few months ago. Once I will have collected all abstract for proposed contributions, we can decide if some are to be given as short/long talks, posters,... Regards,

O····Subject: IWCMO second announcement: Received: Wed 17 June 2009 22:13:21 JST

Dear all, I first apologize to those who may receive this message twice, or already told me they would not come, but do not hesitate to advertise this event around you!

We have issued a *second* annoucement with *registration form* and more practical information about this meeting that will take place in Paris and Meudon from the 17th to the 20th of September 2009. See:

http://www.usr2.obspm.fr/~biver/IWCMO/

We already have famous speakers in the scientific program, but you are welcome to give a presentation - oral or poster - and send us an abstract of it, about one of the topic listed on the web page:

http://www.usr2.obspm.fr/~biver/IWCMO/

All useful information should be there and do not hesitate to contact us for more. I hope I answer also to the queries of a few of you who contacted me earlier but for who I did not find to reply yet.

Sincerely, in hope to see many of view next fall, on behalf of the Local Organising Committee (IWCMO-LOC),

Nicolas BIVER (ニュラ・ビヴェール Meudon 法)

• · · · · · Subject: Re:Update on IWCMO scientific program Received: Mon 08 June 2009 23:27:49 JST

Dear Nicolas, Here is an abstract for my presentation, which may be presented as a panel with Jean Cave and Randall Rosenfeld (it is yet to be determined).

William Sheehan (and possibly others):

"The Art of Observing Mars: more to it than meets the eye."

In 1877, two maps of Mars appeared: one, from the English portrait and landscape artist Nathaniel Green, the other from the eminent professional astronomer Giovanni

Schiaparelli. These maps were difficult to reconcile; the one was depicted as a dreamy and evocative landscape, the other as a cartographic representation in which points were measured and positioned with micrometric accuracy.

They reflected very different traditions, and at least temporarily, Schiaparelli's map--which featured the canals--became dominant. As Schiaparelli's influence grew, maps of Mars became digests of detail recorded by many different observers in increasingly intense competition to add more and more canals to the map, with the greatest skill being attributed to those who were most successful in this pursuit (Schiaparelli, Lowell, Brenner). Especially after Percival Lowell emerged on the scene in the 1890s--and despite the very different but not wellpublicized results of the great E. E. Barnard, whose magnificent and nearly canal-less drawings of Mars were never published and only rediscovered (by the present author) in the plate vault of Lick Observatory in the 1980s--the most iconic maps of Mars of the 1890s featured little more than abstract patterns of dots and lines bearing increasingly faint resemblance to the planet's appearance in any one view at the telescope.

A decisive change occurred with the introduction of photography in 1905 and especially in 1907 (the Percival Lowell sponsored expedition to photograph Mars at Alianza, Chile). Now the appearance of Mars in photographs began to mould perceptions of the planet in preference to diagram-like sketches of the planet and increasingly tessellated canal-laden maps. This development was followed with the emergence of Flammarion's onetime assistant and "reformed" canalist E. M. Antoniadi, the first artist of consummate skill to tackle the observation of Mars since Green. Antoniadi brought to the eyepiece of the Grand Lunette in September 1909 his long experi-

ence in using stippling technique (cultivated during his herculean labors on the architecture of Hagia St. Sophia in the years between his departure from Flammarion's Juvisy and the beginning of his work at Meudon) to record the vagaries of planetary surface features. He also boasted a unique memory for spatial forms (exemplified, for instance, by his success as a chess master). Beginning on September 20 of 1909--the occasion which is being celebrated today as the most decisive turning point in the study of Mars until the spacecraft era--he redirected Martian science by his virtuosity in capturing definitively the Martian landscapes as they actually appeared in the eyepiece, and took what was revealed in the opportune periods of superlative seeing as indicating the ultimate reality of the (naturalistic) Martian surface.

Without asserting direct influence, we will show that Antoniadi's methods bear some resemblance to those being developed by the Impressionists such as Monet and Pisarro, whose hasty-looking landscapes are said to have "owed something to the brief vistas glimpsed as they loomed and then dissolved in the window of a train carriage," and represent a significant departure from the application of schematic cartographic techniques that had led to the misattribution of artificiality to the natural-appearing surface features of Mars. As the Impressionists changed the way of "seeing" in art, Antoniadi changed the way of "seeing" in the study of Mars. His publication of his studies of Mars with the Grand Lunette marked the beginning of the downfall of the canal paradigm.

Bill SHEEHAN (ウィリアム・シーハン MN 美)

 $\Rightarrow \Rightarrow \Rightarrow$

シー・エム・オー・フクイ ―

一中島 孝 Nj

★前号は5月28日に印刷・丁合し、国内は19時までに三国から発送しました。藤沢(Mk氏)、横浜(Ts氏)には30日、宗像(As氏)には31日に配達されたようです。今号は南(Mn)編集長が25日から十日間検査他の入院のため、24日uploadとし、印刷・発送も西田(Ns)氏と筆者(Nj)で行う予定です。不一

☆ Kasaj-Tsûshin GMO (http://www.hida.kyoto-u.ac.jp/~cmo/cmo/oaa_mars.html)

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