

## MARS

No. 361  
25 August 2009

## OBSERVATIONS

Published by the OAA Mars Section

## CMO 2009/2010 Mars Report #05

OAA Mars Section

♂..... This report treats the Mars observations during the one-month period from 16 July ( $\lambda=304^\circ\text{Ls}$ ) to 15 August 2009 ( $\lambda=322^\circ\text{Ls}$ ). During the period the apparent diameter  $\delta$  went up from 5.1" just to 5.5". The central latitude  $\phi$  was  $8^\circ\text{S}$  on 16 July but decreased to  $0.1^\circ\text{S}$  on 15 August at 00:00GMT, and to  $0.4^\circ\text{N}$  on 16 August 00:00GMT. The phase angle  $\iota$  was  $34^\circ$  to  $37^\circ$ . The apparent declination  $D$  proceeded from  $20^\circ\text{N}$  to  $23^\circ\text{N}$ : Very high from the Northern Hemisphere.

This summer the weather in Japan was unfavourable. They say the rainy season at the Hokuriku district ended on 4 August, but the skies still remained increment.

♂..... 今回の報告は16July2009( $\lambda=304^\circ\text{Ls}$ )から15Aug( $\lambda=322^\circ\text{Ls}$ )迄の一ヶ月の観測を扱う。この間、視直径 $\delta$ は5.1"から5.5"迄の僅かの伸びである。中央緯度 $\phi$ は $8^\circ\text{S}$ であったものが、15Aug00:00GMTには $0.1^\circ\text{S}$ 、16Aug00:00GMTには $0.4^\circ\text{N}$ と赤道を切った。位相角 $\iota$ は $34^\circ$ から $37^\circ$ に増えている。視赤緯 $D$ は $20^\circ\text{N}$ から $23^\circ\text{N}$ へと進捗した。今夏は天候が不順で、北陸地方の公式な梅雨明けは八月4日になったようだが、その後もパツとせず、東北地方は梅雨明け宣言を諦めたようである。

♂..... We received the observations this time as follows. 今回拝受の観測報告は次の如くである。

**AKUTSU, Tomio 阿久津 富夫 (Ak)** セブ・フィリッピン Cebu, the Philippines

1 Colour + 1 B + 1 IR Images (7 August 2009) 36cm SCT@f/24 with DFK21AU04/DMK21AU04

**GERSTHEIMER, Ralf ラルフ・ゲルシュトハイマー (RGh)** ドイツ Habichitswald, Deutschland

4 IR Images (16 July; 15 August 2009) 32cm speculum@f/42, 56 with a DMK21AF04

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

2 Colour + 2 B Images (11, 13 August 2009) 28cm SCT with a DMK21AU04

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

1 Colour Drawing (20 July 2009) 380×23cm Maksutov-Cassegrain

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

4 Sets of Drawings (26 July; 6, 12, 15 August 2009) 280, 320, 360×15cm Cassegrain

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

5 Sets of RGB +5 IR Images (7, 11, 13 August 2009) 25cm speculum@f/60 with a Lu075M

**PEACH, Damian A デミアン・ピーチ (DPc)** イギリス High Wycombe, Buckinghamshire, UK

1 Set of Images (9 August 2009) 36cm SCT@f/40 with a SKYnyx 2-0M

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

2 Sets of RGB + 1 R + 3 IR Images (20, 26 July 2009)

25cm Cassegrain@f/50, 60 with a SKYnyx 2-0M

**SMET, Kris クリス・スмет (KSm)** ベルギー Bornem, Belgium

3 Colour Drawings (26 July; 4\*, 15\* August 2009) 400×20cm spec, 200, 300×30cm Dobsonian\*

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

2 Sets of RGB Images (6, 14\* August 2009)

20cm SCT, 28cm SCT\* (⊗ 2× Barlow) with a DBK21AF04AS

♂..... On 16 July ( $\lambda=304^\circ\text{Ls}$ ), R GERSTHEIMER (RGh) took the IR images successively at  $\omega=176^\circ\text{W}$ ,  $185^\circ\text{W}(187^\circ\text{W})$ ,  $214^\circ\text{W}$  in which M Cimmerium came into the inside. On 20 July ( $\lambda=307^\circ\text{Ls}$ ) Ch PELLIER (CPl) produced a set of images at around  $\omega=115^\circ\text{W}$ , and showed the area from M Sirenum to Solis L but not yet complete. On the same day C HERNANDEZ (CHr) sketched the disk at  $\omega=214^\circ\text{W}$  where Syrtis Mj is popping out slim from the western limb. The west end of M Cimmerium looks shortened. On 26 July ( $\lambda=310^\circ\text{Ls}$ ), K SMET (KSm) observed at  $\omega=049^\circ\text{W}$  in which he looked to have seen Aurorae S and Margaritifer S. On the other hand CPl took the images at  $\omega=055^\circ\text{W}$  on the day, and showed that the area around Solis L looks to largely protrude towards the north, darker than Aurorae S (CPl also produced R image at  $\omega=059^\circ\text{W}$ , and IR images at  $\omega=053^\circ\text{W}$ ,  $058^\circ\text{W}$ ). On 4 Aug ( $\lambda=315^\circ\text{Ls}$ ), KSm drew at  $\omega=329^\circ\text{W}$ , and on 6 Aug ( $\lambda=316^\circ\text{Ls}$ ) S MAKSYMOWICZ (SMk) did at  $\omega=301^\circ\text{W}$ ,  $308^\circ\text{W}$ , each of which shows S Sabaeus and a sinking Syrtis Mj. On 7 Aug ( $\lambda=317^\circ\text{Ls}$ ) Yukio MORITA (Mo) made a set of images at  $\omega=184^\circ\text{W}$ , and Tomio AKUTSU (Ak) at  $\omega=190^\circ\text{W}$ : Mo's images are superior and describe the region from M Sirenum to M Cimmerium in which Elysium is apparent pinched by the Ætheria dark patch and the area of Phlegra and Propontis I. On 9 Aug ( $\lambda=318^\circ\text{Ls}$ ) D PEACH (DPc) published the images where Syrtis Mj is near the CM at  $\omega=286^\circ\text{W}(287^\circ\text{W})$ : M Serpentis and a northern part of Hellespontus are broad and dark while they look rather weakly connected with S Sabaeus. M Tyrrenum is visible, but the difference from the shape in 2007 is not so distinct because it is already at the evening side. There is a shadowy part inside Hellas. On 11 Aug ( $\lambda=319^\circ\text{Ls}$ ) S GHOMIZADEH (SGh)'s image at  $\omega=230^\circ\text{W}$  shows that Syrtis Mj is near the following limb. On the same day Mo produced the sets of images at  $\omega=139^\circ\text{W}$ ,  $146^\circ\text{W}$  where M Sirenum is dark and Propontis I is also spotted. On B images, the evening cloud at Arsia Mons is evident. On 12 Aug ( $\lambda=320^\circ\text{Ls}$ ), Syrtis Mj is on the morning side on SMk's drawings at  $\omega=243^\circ\text{W}$  etc. On 13 Aug ( $\lambda=320^\circ\text{Ls}$ ) SGh took at  $\omega=210^\circ\text{W}$  and on the same day at  $\lambda=321^\circ\text{Ls}$ , Mo took at  $\omega=118^\circ\text{W}$ ,  $126^\circ\text{W}$ : The northern hemisphere shows some markings but obscure. On 14 Aug ( $\lambda=321^\circ\text{Ls}$ ) at  $\omega=347^\circ\text{W}$  J WARREN (JWn) faintly depicted the area of S Sabaeus. On 15 Aug ( $\lambda=322^\circ\text{Ls}$ ), drawings were made by SMk at  $\omega=215^\circ\text{W}$  and by KSm at  $\omega=223^\circ\text{W}$ . The former shows Syrtis Mj too inside. The latter does not show the morning Syrtis Mj. KSm's shape of the western end of Cimmerium is akin to CHr's one on 20 July; maybe because of the aspect of M Tyrrhenum? On the same day, RGh, after his summer vacation, shot at  $\omega=280^\circ\text{W}$  and showed clearly Syrtis Mj and a subtleness inside Hellas. S Sabaeus is definitely on the morning side.



♂..... ゲルシュトハイマー(RGh)氏の16July( $\lambda=304^\circ\text{Ls}$ )の連続像は $\omega=176^\circ\text{W}$ 、 $185^\circ\text{W}(187^\circ\text{W})$ 、 $214^\circ\text{W}$ で撮られており、マレ・キムメリウムが中に入って来ている。RGh氏はその後夏期休暇に入る。20July( $\lambda=307^\circ\text{Ls}$ )にはペリエ(CPl)氏が $\omega=115^\circ\text{W}$ 近辺で撮っている。マレ・シレヌムからソリス・ラクスマまで入って居るが、まだ幾らか不分明である。同日、ヘルナンデス(CHr)氏が $\omega=214^\circ\text{W}$ でスケッチした。シュルティス・マイヨルが細く見え出している。マレ・キムメリウムの西端は短く見える。26July( $\lambda=310^\circ\text{Ls}$ )にはスメト(KSm)氏が $\omega=049^\circ\text{W}$ でスケッチ、アウロラエ・シヌスやマルガリティフェル・シヌスを観ているようである。一方CPl氏は $\omega=055^\circ\text{W}$ 近辺で撮像した。アウロラエ・シヌスよりその西のソリス・ラクスマが北下したように濃く大きく垂れ下がって見える( $\omega=059^\circ\text{W}$ でR,  $\omega=053^\circ\text{W}$ 、 $058^\circ\text{W}$ でIRなど)。4Aug( $\lambda=315^\circ\text{Ls}$ )のKSm氏の $\omega=329^\circ\text{W}$ のスケッチ、6Aug( $\lambda=316^\circ\text{Ls}$ )のマクシモヴィッツ(SMk)氏の $\omega=301^\circ\text{W}$ 、 $308^\circ\text{W}$ にはシュルティス・マイヨルの片鱗とシヌス・サバエウスが出ている。

7Aug( $\lambda=317^\circ\text{Ls}$ )には森田行雄(Mo)氏が $\omega=184^\circ\text{W}$ 、阿久津富夫(Ak)氏が $\omega=190^\circ\text{W}$ で撮っているが、Mo氏の像が遙かに好く、マレ・シレヌムからマレ・キムメリウムまで描写し、エリュシウムが明白でアエテリアの暗斑が濃く健在で、プレグラからプロポンティスIも明確。9Aug( $\lambda=318^\circ\text{Ls}$ )にはピーチ(DPc)氏が $\omega=286^\circ\text{W}$ ( $287^\circ\text{W}$ )でシュルティス・マイヨル中心に撮像、マレ・セルペンティス、ヘッレスポントウスの根元が濃くシヌス・サバエウスとは些し繋がりが鈍いか、というところ。マレ・テュッレヌムも出ているが夕方で前年度との比較が出来ない。ヘッラス内には陰影がある。11Aug( $\lambda=319^\circ\text{Ls}$ )のゴミザデ(SGh)氏の $\omega=230^\circ\text{W}$ にはシュルティス・マイヨルが西端に出掛かっている。同日のMo氏の $\omega=139^\circ\text{W}$ 、 $146^\circ\text{W}$ にはマレ・シレヌムが濃く、プロポンティスIも見える。Bではアルシア・モンスの夕方の白雲が見えている。12Aug( $\lambda=320^\circ\text{Ls}$ )のSMk氏の $\omega=243^\circ\text{W}$ ほかでは、シュルティス・マイヨルが朝方。13Aug( $\lambda=320^\circ\text{Ls}$ )では $\omega=210^\circ\text{W}$ でSGh氏、同日( $\lambda=321^\circ\text{Ls}$ になって)、Mo氏が $\omega=118^\circ\text{W}$ 、 $126^\circ\text{W}$ で撮像：北半球の模様も出ているが明確ではない。14Aug( $\lambda=321^\circ\text{Ls}$ ) $\omega=347^\circ\text{W}$ ではウォーレン(JWn)氏がシヌス・サバエウス周辺をボンヤリ出している。15Aug( $\lambda=322^\circ\text{Ls}$ )にはSMk氏の $\omega=215^\circ\text{W}$ ほか、KSm氏の $\omega=223^\circ\text{W}$ の図がある。前者ではシュルティス・マイヨルが内部に入りすぎており、後者では見えていない。マレ・キムメリウム近辺の様子が20JulyのCHr氏のに似ている。マレ・テュッレヌムの濃淡の影響か。この日、休暇明けのRGh氏が $\omega=280^\circ\text{W}$ で撮り、シュルティス・マイヨルを明確に、またヘッラス内部の陰影も写し出している。シヌス・サバエウスはしっかり右端に出て来ている。

♂.....In the next issue we shall review the observations made during the period from 16 August ( $\lambda=322^\circ\text{Ls}$ ,  $\delta=5.5''$ ) to 15 September 2009 ( $\lambda=339^\circ\text{Ls}$ ,  $\delta=6.2''$ ).

南 政 次・村上 昌己 M MINAMI & M MURAKAMI

*Forthcoming 2009/2010 Mars (6)*

## Why Do You So Adhere to a Minute Value? 細かい数値に拘るな！

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★The subject we treat this time is also elementary, but we believe what we shall mean is quite essential. We here pick out the basic elements of physical data of the Martian observations; namely the longitude of the central meridian (LCM= $\omega$ ) and so on. ★ We usually need the data of the Martian season  $\lambda$ , the coordinates of the central point of the disk ( $\omega$ ,  $\phi$ ), the apparent diameter  $\delta$  and the phase angle  $\iota$ : The reason why these suffice our data, or such values of  $D_s$  and the phase are neglected will be stated later. Here we begin by stating a bit how to get the value of LCM, ie  $\omega$ .

★The CMO Ephemeris shows every time the LCM at 00:00 GMT (09:00 JST) every day. It reads the longitude of the CM of the disk including the area of defect of illumination. The rotation period of Mars is about 1.026 Earth day, and hence it in-

creases by about  $350^\circ$  per day. ★ Let the observation time be  $H$  hrs GMT, and then we can proceed as follows: Let  $a_0$  be the LCM at 00:00 GMT on the very day and let  $a_1$  be the one on the following day. Then the following formula gives us the data of  $\omega$  at  $H$  hrs (not exactly, but proportionally and so a bit different from the true curved value):

$$\omega = a_0^\circ\text{W} + H \times ((a_1 - a_0 + 360)/24)^\circ\text{W}$$

Here  $\omega$  should be mod  $360^\circ$ . And furthermore we should round off the value the fractions to the integer value. It does never imply to be more precise if we use the decimal numbers as will be stated below

★ As an example, let us assume we observed on 9 August 2009 at 18:30 GMT. Then Ephemeris III in the foregoing issue gives the values  $\omega$  at 00:00GMT:

09 Aug  $\omega=229.76^\circ\text{W}$

10 Aug  $\omega=220.06^\circ\text{W}$

Then the value  $\omega$  at 18:30 GMT on 9 August is given by

$$\begin{aligned}\omega &= 229.76^\circ\text{W} + 18.5 \times ((220.06 - 229.76 + 360) / 24)^\circ\text{W} \\ &= 499.78^\circ\text{W} = 139.78^\circ\text{W} \pmod{360}\end{aligned}$$

Since the decimals .78 do not imply any positive meaning, we should round  $\omega = 139.78^\circ\text{W}$  to  $\omega = 140^\circ\text{W}$ . The reason why we round off the value is not because we use the linear method, but note the following fact: The planet Mars rotates by  $0.24^\circ\text{W}$  per minute, while we are not able to accomplish any observational action within one minute or so. As one may think one is able to release a shutter within a moment, whereas one must be forced to compose images which were taken in different moments. ★ Here we take another example in January in 2010 and pick out the possible observation in the US on 28 January 2010 at 05:30 GMT. The CMO values at 00:00 GMT will be given as follows:

$$28 \text{ January } \omega = 055.99^\circ\text{W},$$

$$29 \text{ January } \omega = 047.27^\circ\text{W},$$

so that we will have

$$\begin{aligned}\omega &= 055.99^\circ\text{W} + 5.5 \times ((047.27 - 055.99 + 360) / 24)^\circ\text{W} \\ &= 136.49^\circ\text{W},\end{aligned}$$

which can be rounded off to  $\omega = 137^\circ\text{W}$ . This implies that at the CST and MST time zone in the US, Olympus Mons will be near the CM and its summit will shine brilliantly because of the opposition effect, a lucky opportunity in the US (the planet is at opposition on 29 January at about 19.5 hrs GMT).

★ One more attention should be paid about the LCM: Recently there have been issued several kinds of software on the observational data, and one can apt to use them easily. For example the WinJupos gives the value

$$\omega = 230.0^\circ\text{W}$$

on 9 August at 00:00 UT, which is apparently different from the value  $\omega = 229.76^\circ\text{W}$  of the CMO above by  $0.2^\circ\text{W}$ . The difference however is eliminated if we round off the both values. This so implies that those who use the WinJupos should employ the integers about the LCM by rounding off the raw data. ★ As to the values on 28 January 2010 at 00:00 GMT, the CMO value also gives

$\omega = 055.99^\circ\text{W}$ , whereas the WinJupos gives  $\omega = 056.2^\circ\text{W}$ , and so in this case also it is evident the rounding off is necessary. ★ On the other hand the Winp software gives respectively the values  $\omega = 229.4^\circ\text{W}$  and  $055.6^\circ\text{W}$ , and the differences are not trivial. In the former case there is a difference of  $1^\circ\text{W}$  even if rounded off. A certain software gives an unbearable value down to the seventh decimal place; which is just ridiculous. ★ We note furthermore the WinJupos on 9 August at 00:00 GMT gives  $\omega = 230.0^\circ\text{W}$  as stated above, while the value at 00:01 GMT certainly gives  $\omega = 230.2^\circ\text{W}$ . It is Okay to fix the observation time at 00:01 GMT, but the LCM should both be  $\omega = 230^\circ\text{W}$ . We are sure nothing different will happen within the very minute, and the things are never less exact if rounded off.

★ Our CMO Ephemeris depends on *the Almanac* and so should be standard. *The Almanac* gives the LCM at TT, and our GMT values are reduced from a supposed value  $\text{TT} - \text{UTC} = +66.184$  secs (2009): In August 2009,  $\omega$  is different by  $+0.268^\circ\text{W}$  from the value at TT, and in the case of January 2010, it differs by  $+0.269^\circ\text{W}$ .

★ We further claim that the Ls value which will designate the Martian season  $\lambda$ , though the standard values at 00:00 GMT are given down to the second decimal place, should be rounded off to integer in the case of the real observation. That is, if we have a value like  $\lambda = 318.12^\circ\text{Ls}$ , we should round it off to  $\lambda = 318^\circ\text{Ls}$ . The reason is simple: As repeatedly stressed, any phenomenon observed from the terrestrial stations does not imply the minute season. ★ The central latitude  $\phi$  can be written to the first decimal place. But in the case of the visual observation, the decimal point is unnecessary. When we measure the size of the polar cap the value sometimes plays a decisive role, but any measured value must be considered to be rougher than  $\pm 1^\circ$ . ★ In the case of Winp's  $\phi$ , the value sometimes differs from the value given by *the Almanac*. In the latter, we suppose the difference of the shapes of the southern hemisphere from the northern hemisphere is taken into account (that is, the Martian sphere is

not purely roundish).

★ In the CMO, we do seldom take up the values of  $D_s$ : This is because the season or the altitude of the highest Sun can be suggested by  $\lambda$ . In special cases however, just like the case of the flare, the value  $D_s$  is important to be compared with  $DE=\phi$ .

★ On the other hand, we consider that the phase angle  $\iota$  is a very important element. It is possible to deduce how far the noon line is separated from the CM, but it is tedious to calculate each time, while the phase angle  $\iota$  easily (though slightly roughly) suggests the difference. Sometimes it is decisive to know how far the morning side is at the rear side (angle from the morning limb). It is regrettable that some kinds of software do not give this convenient value of the phase angle  $\iota$ , but just the "phase".

★ **今** 回も物理表に関する初等的な事柄を採り上げるが、簡単そうでなかなか誤解の多いところである。★ 差し当たり、われわれの要求するのは火星の季節 $\lambda$ 、中央経緯度( $\omega$ 、 $\phi$ )、視直径 $\delta$ 、位相角 $\iota$ であるが、これらで充分とする理由は後で述べるとして、先ず中央経度 $\omega$ について、少し詳しく主張しておく。

★ CMOのEphemerisには火星面中央経度の毎日の0hGMT(9hJST)の値が載せられている。欠けの部分を含んだ火星像の中心の火星面経度(西経)である。火星の自転周期はほぼ1.026日であるから1日で約 $350^\circ$ ずつ増えていく。★ 観測時(HhGMT)の火星面中央経度( $\omega$ )を求めるには、CMOの表から当日の値( $a_0$ )、翌日の値( $a_1$ )を読んで補間法で次の公式を使えばよいが、観測者はこの式の導入方法や意味を知らなければならない。近年は計算ソフトが横行し、転記しているだけの観測者も多いが、意味も知らないのでは困ったことである。

$$\omega = a_0^\circ W + H \times ((a_1 - a_0 + 360) / 24)^\circ W$$

ここで、 $\omega$ は $360^\circ$ でまるめて使用する(mod 360 $^\circ$ )。小数点以下は四捨五入して整数にする。小数桁を増やすことは正確を期すのとは反対で、むしろ不都合であるのみならず、算術が不得意か、火星の実情をよく知らないことを暴露することになる。

★ 例として、9 Aug 2009 18:30GMTに観測したとしよう。するとこの場合前号のEphemeris IIIから

$$09 \text{ Aug } \omega = 229.76^\circ W$$

$$10 \text{ Aug } \omega = 220.06^\circ W$$

が有用になる。18:30GMTの値を求めるには上の式に当て嵌めて

$$\begin{aligned} \omega &= 229.76^\circ W + 18.5 \times ((220.06 - 229.76 + 360) / 24)^\circ W \\ &= 499.78^\circ W = 139.78^\circ W \pmod{360} \end{aligned}$$

となるわけであるが、.78には意味がないから $\omega = 140^\circ W$ とするのである。小数点以下に意味がないのは、火星は一分でほぼ $0.24^\circ W$ 回転するのに対して一分で済ませるような作業は存在しないだけでなく、一分で勝負が来るような現象は百年に数度あるかどうかであろう。通常眼視では当然であるが、ccd作業に於いてもシャッターは一瞬でも合成を考えれば然りである。★ もう一つ衝の頃を例にとって、28 Jan 2010 05:30GMTを試してみる。

CMOの00:00GMTの値は

$$28 \text{ Jan } \omega = 055.99^\circ W$$

$$29 \text{ Jan } \omega = 047.27^\circ W$$

と与えられるであろうから、

$$\begin{aligned} \omega &= 055.99^\circ W + 5.5 \times ((047.27 - 055.99 + 360) / 24)^\circ W \\ &= 136.49^\circ W \end{aligned}$$

となる。四捨五入して $\omega = 137^\circ W$ である。アメリカのCST、MSTの夜半近くにオリュムプス・モンスが南中することを示している。衝効果で頂上が鋭く輝いて見えるはずである(衝は29Jan2010at 19.5hrs近くである)。

★ 以上で $\omega$ に関する主なところは終わりだが、もう一つ注意したいことがある。最近はいろんなソフトが出ていて、例えばWinJuposの例えば09 Aug 2009 00:00GMTの値は

$$\omega = 230.0^\circ W$$

となっており、CMOの $\omega = 229.76^\circ W$ とは違っている。四捨五入して小数点以下をなくすことによって同じになるわけであるから、WinJuposを使用する人達も小数点以下は四捨五入して捨てるべきである。★ 28Jan2010 00:00GMTの基準点についてもCMOの $\omega = 055.99^\circ W$ に対しWinJuposでは $\omega = 056.2^\circ W$ であるから、後者は明らかに四捨五入しなければならない。★ 尚、Winpの値は夫々 $\omega = 229.4^\circ W$ 、 $055.6^\circ W$ となっていて、微妙な差がある。前者では四捨五入しても $1^\circ W$ のズレが出る。数多あまたのソフトの中には小数点以下七桁まで出て来るものがあるが、もってのほかである。バッチソフト



で二桁止めとしても観測には対応していないのであって、繰り返すが小数点以下は四捨五入すべきであるし、端<sup>はした</sup>数字を右倣えで麗々しく残している輩はどこかおかしい。★9Augの場合WinJuposでは00:00GMTでは上に述べたように $\omega=230.0^\circ W$ で、00:01GMTでは $\omega=230.2^\circ W$ と出るとは確かである。観測時を00:01GMTとすることは構わないが、 $\omega$ は $\omega=230^\circ W$ で充分である。その方が寧ろ正確であって、何も詳しいことを付け加えることにはならないし、起こってもいない筈である。

★われわれのCMOの値はAlmanacに依っていて、標準的である。AlmanacはTTで与えられているので、やや推定値になるがTT-UTC=+66.184秒(2009)を使っている。Aug2009の場合はこれより $\omega$ はTT値よりも+0.268°W。Jan2010の場合は+0.269°Wの違いが出ている。★火星の季節を表すLs値に就いてはCMOの基準値は下二桁まで与えてあるが(Almanacの通りである)実際の観測ではこれも四捨五入して小数点以下は無くすべきである。 $\lambda=318.12^\circ Ls$ は観測では $\lambda=318^\circ Ls$ で充分である。理

由は簡単で何度も指摘するようにコンマ以下に相当する現象は少なくとも地上からの観測からは引掛からないからである。★ $\phi$ は小数点一桁迄あっても好いであろう。然し、四捨五入して充分である。極冠の測定の時に引掛かってくるが、 $\pm 1^\circ$ 程度はccdでも測定に付きものである。★問題は、 $\phi$ は小数点以下にするとWinpでは違って来ることである。Almanacでは火星の南半球と北半球の形が違うことを最近では考慮されているので、こちらに従う方が好い。★CMOではDsの記述は推奨していない。それは太陽の高さは $\lambda$ で記述されると考えているからであって、現象に太陽の正中の高さに関わるとしても $\lambda$ で高度を勘案すべきである。★一方位相角 $i$ は重要な要素としている。本来正午線がCM線から何度離れているか、朝方や夕方に輝面が何度隠れているかについてはキチンと計算する方法があるが、略位相角<sup>ほぼ</sup>で代用して問題ないのである。これは使いやすい有用な数値であって、ソフトによっては位相のみの掲載だけで位相角を度外視しているのは頂けない。□

## 便り

### Letters to the Editor

.....Subject: 中国日全食 残念見えず  
Received: Sat 25 July 2009 10:53:54 JST

おはようございます。中国、杭州市で皆既日食は第二、第三接触は厚い雲に覆われ、コロナは見えずじまいでした。天頂付近の金星は見えていたのに中空の太陽は雲に隠れてしまいました。第三接触後、直ぐに晴れ出したのは残念です。皆既中、市内は夜となり、ヘッドライトをつけた車が行き来、花火や火事まで起こり、つかの間の夜でした。

あっという間の六分間でした。杭州市内の一部では薄雲を通してコロナが見えたそうですが、ほんの一寸の場所の違いで差が出ました。

○.....Subject: Re: Fw: Jupiter, GRS and Wesley Impact Scar -  
Received: Mon 27 July 2009 18:13:36 JST

南様、画像の配信、ありがとうございます。WesleyのハンドルネームがBirdのようですね。昨日、粘って木星の衝突痕を撮像しました。気流が悪いものの、眼視でもはっきり見えていました。衝突痕は東西に伸びています。画像は後で送ります。

○.....Subject: Jupiter J090726  
Received: Tue 28 July 2009 16:10:28 JST

皆様、衝突痕の画像はセブに戻り、やっと撮像できました。眼視でもはっきり見え、拡張しているようです。メタンバンドではやや明るく見えます。気流が悪く、その影響か？その後の変化なのか？追跡は天気次第です。

○.....Subject: Jupiter J090803

Received: Tue 04 Aug 2009 21:22:39 JST

衝突痕の画像です。気流が悪かったのですが、横に広がる痕跡はこの気流でも見えています。

○.....Subject: Jupiter J090805  
Received: Fri 07 Aug 2009 12:59:57 JST

セブでは7月下旬から天気が悪く、台風の影響もあり、夜は晴れず木星は見る機会は少な目です。晴れても風が強く、気流も悪く、衝突痕のイメージの仔細は無理です。衝突痕は次第に拡散し眼視でも淡くなっているのが分かります。ステレオ画像では擬似立体視で衝突痕イメージが掴めます。

○.....Subject: Jupiter J090807 J090808  
Received: Mon 10 Aug 2009 20:05:08 JST

その後の衝突痕は三個に分裂しています。

○.....Subject: Jupiter J090809 J090910 Saturn S090810  
Received: Wed 12 Aug 2009 00:44:55 JST

台風が去って、やっとセブでも晴れ木星と土星が見えました。木星衝突痕は日増しに拡散し少しづつ淡くなっています。アニメーションを添付します。後半は気流が悪くなりました。

土星は夕方、奇跡的な晴れ間から見えました。眼視ではリングが見えず、可成りの露出で辛うじて陰影を捉えることは出来ました。

○.....Subject: Jupiter J090813  
Received: Fri 14 Aug 2009 17:46:42 JST

流れ行く雲の隙間に見えた木星ですが、気流が思いのほか悪かった。木星面のSEBは昨年と違い安定した状態を保っています。それに対してNEBは活発な活動が見られ、大きなリフトとバルジが数箇所あります。NEBnのストリークが伸び、NEBの拡張傾向は今後の追跡観測となります。

○.....Subject: Mars Ak07Aug09

**Received: Fri 14 Aug 2009 17:57:21 JST**

ご無沙汰しています。先週撮像の火星画像です、しばらく間、曇りの天気が続きましたので、しばらくぶりの火星です。高度が上がり、セブではかなり北側から出てくるようになりました。...

○.....**Subject: Jupiter J090814-1 J090814-2 Saturn S090814**  
**Received: Sun 16 Aug 2009 22:19:28 JST**

夕方の土星、夜半の木星画像です。気流が良く、木星のGRSの経過を見ることが出来ました。衝突痕は益々拡散しています。

○.....**Subject: Animation of Jupiter J090814**  
**Received: Sun 16 Aug 2009 23:28:57 JST**

GRS付近の画像からアニメーションを作ってみました。セブでは気流のよい時でしたので、自転変化によるGRS付近が様子が分かります。

○.....**Subject: Jupiter J090814**  
**Received: Tue 18 Aug 2009 21:43:26 JST**

木星のメタン像です。

○.....**Subject: Jupiter J090818**  
**Received: Wed 19 Aug 2009 21:51:58 JST**

気流が安定し、NTBnの暗斑が良く分かる。メタンバンドではNTZに明るい白斑がある。

○.....**Subject: Jupiter J090819**  
**Received: Thu 20 Aug 2009 17:42:55 JST**

雲の多い夜、多くは撮れず諦めた。衝突痕は益々、淡く拡がり、眼視ではコントラストが無くで識別が難しい。

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

●.....**Subject: Possible impact in 1917**  
**Received: Sun 26 July 2009 04:58:45 JST**

Hi All, Tom Dobbins contacted me about an interesting observation by the Russian Zlatinskii in 1917. He has submitted it to the *A.L.P.O. Journal* and asked me to forward it to you. The photocopy of the drawing has been uploaded to the ALPO Yahoo Jupiter Group: Best

[http://groups.yahoo.com/group/ALPO\\_Jupiter/photos/album/729589922/pic/list](http://groups.yahoo.com/group/ALPO_Jupiter/photos/album/729589922/pic/list)

○.....**Subject: Jupiter 24 July**  
**Received: Sun 26 July 2009 05:33:21 JST**

Hi All, I have attached an RGB image of Jupiter from 24 July. The sky conditions did not permit imaging in CH4 or UV. It is interesting that, as soon as we have exciting phenomena like total solar eclipses, impacts on Jupiter, and bright clouds on Venus, the weather deteriorates. Best,

○.....**Subject: Jupiter 27 July**  
**Received: Tue 28 July 2009 14:47:35 JST**

Hi All, I have attached an RGB image of Jupiter from 27 July. The oval BA remains faded and reddish material appears to have spread into the STB. CH4, UV, and IR images to follow. Best,

○.....**Subject: Jupiter 27 July Ch4, IR, UV**  
**Received: Thu 30 July 2009 05:18:01 JST**

Hi All, I have attached some CH4, IR, and UV Jupiter images from 27 July. Best,

○.....**Subject: Jupiter 29 July**  
**Received: Thu 30 July 2009 08:12:30 JST**

Hi All, I have attached an RGB image of Jupiter from 29 July. The Bird Strike is near the CM. I had to use the 10-inch Mewlon since my neighbor's monster palm tree was blocking the 16-inch. Best,

○.....**Subject: More Jupiter 29 July**

**Received: Fri 31 July 2009 13:28:29 JST**

Hi All, I have attached another RGB image plus a rather poor CH4 image from 29 July. Best,

○.....**Subject: Jupiter 31 July**  
**Received: Sun 02 Aug 2009 06:09:15 JST**

Hi All, I have attached RGB, IR and CH4 images of Jupiter from 31 July. The impact site is near the CM.

○.....**Subject: Jupiter 3 August**  
**Received: Tue 04 Aug 2009 13:30:29 JST**

Hi All, I have attached two RGB images of Jupiter from 3 August. Oval Ba remains very faded. Io in transit.

○.....**Subject: Jupiter 3 Aug in CH4 with Impact on Limb**  
**Received: Wed 05 Aug 2009 12:20:57 JST**

Hi All, I have attached two CH4 images from 3 August. The impact site is bright on the PM limb. Best,

○.....**Subject: Jupiter 5 August**  
**Received: Thu 06 Aug 2009 07:15:25 JST**

Hi All, I have attached an RGB image of Jupiter from 5 August. The Bird Strike has fragmented and continues to elongate. High winds and clouds prevented CH4 or UV imaging. Best,

○.....**Subject: Wesley the Rock Star**  
**Received: Tue 11 Aug 2009 06:40:14 JST**

Hi All, Phil Dombrowski sent me this... Bird is now a rock star! It's really neat.

[http://www.youtube.com/watch?v=Ie\\_eiv4zzxk](http://www.youtube.com/watch?v=Ie_eiv4zzxk)

○.....**Subject: Jupiter 12 August**  
**Received: Thu 13 Aug 2009 09:06:44 JST**

Hi All, I have attached an RGB Jupiter image from 12 August. The Bird Strike continues to fragment. The seeing was poor, and I was unable to obtain CH4 images due to approaching rain clouds. (Naturally it cleared after I closed up!) Best,

○.....**Subject: Jupiter 20 August**  
**Received: Sat 22 Aug 2009 06:07:16 JST**

Hi All, I have attached RGB, IR, CH4, and UV images of Jupiter from 20 August. Oval BA remains faded with a bright white nucleus surrounded by a dark ring. Best,

**Don PARKER** (トロンパーカー Miami FL 美)

●.....**Subject: Re: [ALPO Jupiter] Possible impact in 1917**  
**Received: Sun 26 July 2009 06:18:30 JST**

This is a very impressive possibility and thanks to Tom for uncovering this. Note a couple of issues with this drawing:

1) the shape of the dark area, unlike of course the round shape characteristic of the eclipse shadows that are dismissed in this assumption, is elongated and somewhat tapered on one end, very indicative of what we are seeing with the Wesley event and certainly coincident with the impressions of the SL-9 impact;

2) note closely the shading of the drawing; if it is true to what he had attempted to actually capture from what he was seeing, there is a penumbral shading that is concentric to a darker umbral center, neither of which are uniform and both follow the same contour. This, too, is very coincident with the magnificent images that have been obtained thus far from Keck, from Hubble, and from amateurs using modest but successful equipment.

3) the size of this object/marking in Zlatinskii's drawing: if not exaggerated, this would have been an incredibly forceful or large impact/object.

The curious thing is that this was not more widely observed AND that it is apparently a short-lived feature that was gone in short order. I would tend to "guess" that the circulating currents of Jupiter closer to the equator would tend to homogeneously "mix-out" cloud disturbances on a more rapid scale than in high latitudes such as this new impact feature.

Don and Tom, thanks for sharing this with us all....this is really a great observation.

**Clay SHERROD** (トネクター・クレイ AR 美)

●.....**Subject: Jupiter w/ impact 2009.07.24/25 with CH4 image**  
**Received: Sun 26 July 2009 07:44:41 JST**

Dears, Here are my first images of the impact scar (which happened just the week when i was in holiday, away from my astronomical equipment and internet ), under acceptable conditions given the elevation:

<http://astrosurf.com/delcroix/images/planches/j20090724-MDe.jpg>  
The impact scar is rising while GRS setting. My first Jupiter methane absorption band filter image (the 18nm FWHM actually pleases me given the "small" diameter of my scope, the 50nm is not narrow enough) shows the scar bright, while it's dark in wavelength from blue to IR>742nm, showing it's in the upper atmosphere.

The polar projection "à la H.-J. Mettig" doesn't show any details unfortunately:

<http://astrosurf.com/delcroix/images/j20090724-polar-MDe.jpg>

○.....**Subject: 45Cap occultation (immersion) by Jupiter 2009.08.03 in methane absorption band**  
**Received: Fri 07 Aug 2009 22:24:31 JST**

Hello all, It might be a bit off topic, sorry if that is the case. I finished my own analysis of my recording of the immersion with a 10" scope with a 890nm (17nm) methane filter. All information and some processing details are available at:

[http://astrosurf.com/delcroix/occ\\_20090803\\_Jupiter\\_45Cap-MDe.htm](http://astrosurf.com/delcroix/occ_20090803_Jupiter_45Cap-MDe.htm)  
Quick links out of this page:

- 1 single frame looking like a "flash":

[http://astrosurf.com/delcroix/images/occ\\_20090803\\_Jupiter\\_45Cap\\_singleframe-MDe.jpg](http://astrosurf.com/delcroix/images/occ_20090803_Jupiter_45Cap_singleframe-MDe.jpg)

- 2 minutes animation centered on half nominal stellar intensity estimated time:

[http://astrosurf.com/delcroix/videos/occ\\_20090803\\_Jupiter\\_45Cap-MDe.gif](http://astrosurf.com/delcroix/videos/occ_20090803_Jupiter_45Cap-MDe.gif)

- 6 minutes lightcurve:

[http://astrosurf.com/delcroix/images/occ\\_20090803\\_Jupiter\\_45Cap\\_lightcurve1-MDe.jpg](http://astrosurf.com/delcroix/images/occ_20090803_Jupiter_45Cap_lightcurve1-MDe.jpg)

- 2 minutes lightcurve:

[http://astrosurf.com/delcroix/images/occ\\_20090803\\_Jupiter\\_45Cap\\_lightcurve2-MDe.jpg](http://astrosurf.com/delcroix/images/occ_20090803_Jupiter_45Cap_lightcurve2-MDe.jpg)

My estimation is a "C-O" around -23s

Please let me know your remarks (especially if you see something wrong in my analysis) or request for original data (that's the first time i submit an observation here).

○.....**Subject: Jupiter 2009.08.03 with impact/45Cap**  
**Received: Mon 10 Aug 2009 20:42:49 JST**

Dears, Here are images of Jupiter taken with all of my filters after the immersion of 45Cap that night, except for the methane images. Please note the elongated impact especially on RGB and IR>742nm and methane images, and the fact that we can guess its separated in 3 fragments despite the bad resolution:

<http://astrosurf.com/delcroix/images/planches/j20090803-MDe.jpg>

<http://astrosurf.com/delcroix/images/j20090803-polar-MDe.jpg>

Additionally here is an animation of 3 methane images

(45Cap immersion occurred in second frame):

[http://astrosurf.com/delcroix/videos/jupiter\\_20090803-ch4-MDe.gif](http://astrosurf.com/delcroix/videos/jupiter_20090803-ch4-MDe.gif)

That was an incredible "Jupiter night" for me, starting with the star occultation, following with these images and ending with 2 mutual events i still have to process ...

○.....**Subject: Jupiter & Io 2009.08.04**  
**Received: Wed 12 Aug 2009 05:56:59 JST**

Hi all, That one was a real surprise: when i shot it, i did not even look at the screen, busy with preparing my mutual events observations which were only 15 minutes later, and because the previous IR and RGB captures did not look good on the screen. Nonetheless, at 25° high only, after processing the film i got my best IR Jupiter image in 2 years ...

<http://astrosurf.com/delcroix/images/planches/j20090804-MDe.jpg>

Oval BA (white in IR) is clearly visible on the preceding side, followed by its white spot. The whole equatorial zone seems very busy, as the south polar region full of small dark spots. Here for the eyes only, with IO brightness decreased in order to be under saturation:

[http://astrosurf.com/delcroix/images/jupiter\\_20090804\\_satellites.jpg](http://astrosurf.com/delcroix/images/jupiter_20090804_satellites.jpg)

○.....**Subject: 2009.08.04 - Ganymede eclipses Europa - possible details on Ganymede**  
**Received: Mon 17 Aug 2009 06:26:58 JST**

Dears, Here are the results of my second "phemu" observation: Lightcurve showing my own analysis with a observed minimum intensity time for Europa 23s earlier than predicted:

[http://astrosurf.com/delcroix/images/phemu\\_20090804\\_3ecl2.jpg](http://astrosurf.com/delcroix/images/phemu_20090804_3ecl2.jpg)

An animation showing the event:

[http://astrosurf.com/delcroix/videos/phemu\\_20090804\\_3ecl2.gif](http://astrosurf.com/delcroix/videos/phemu_20090804_3ecl2.gif)

All data and further information is available upon request. On top of that, despite the many observations i did for the past 4 years on Jupiter i think i got detail on Ganymede for the first time:

[http://astrosurf.com/delcroix/images/ganymede\\_20090804\\_19801\\_x2\\_ondx2\\_1\\_4\\_2-5\\_16\\_25\\_5\\_lev.jpg](http://astrosurf.com/delcroix/images/ganymede_20090804_19801_x2_ondx2_1_4_2-5_16_25_5_lev.jpg)

(dark cap being Galileo Region, see

<http://space.jpl.nasa.gov/cgi-bin/wspace?body=503&body=399&month=8&day=4&year=2009&hour=21&minute=45&fov=60&fovmi=1&fov=30&pcbs=1&site=0&show=1>)

○.....**Subject: Ganymede occulting Europa 2009.08.04**  
**Received: Wed 19 Aug 2009 06:33:51 JST**

Dears, One hour later the eclipse which results i posted a while ago, due to opposition the same satellites went for a very small partial occultation. Bad conditions (lot of turbulence and clouds) prevented me to do any scientific analysis of the phenomenon, but i managed to do this average quality animation :

[http://astrosurf.com/delcroix/videos/phemu\\_20090804\\_3occ2-MDe.gif](http://astrosurf.com/delcroix/videos/phemu_20090804_3occ2-MDe.gif)

○.....**Subject: Neptune/Triton 2009.08.14**  
**Received: Fri 21 Aug 2009 05:52:21 JST**

Hi all, For a change even if there is not much to see on the images despite the apparent diameter larger than Ganymede:

<http://astrosurf.com/delcroix/images/planches/n20090814-MDe.jpg>

○.....**Subject: Jupiter 2009.08.14**  
**Received: Sat 22 Aug 2009 05:52:04 JST**

Dears, Jupiter in RGB, CH4 and IR, under slightly above average conditions, with Io and Europe very close to each other (right after a mutual event).

<http://astrosurf.com/delcroix/images/planches/j20090814-MDe.jpg>

○.....**Subject: Jupiter 2009.08.15**  
**Received: Sun 23 Aug 2009 05:34:29 JST**



Dears, Jupiter under less than average conditions:

<http://astrosurf.com/delcroix/images/planches/j20090815-MDe.jpg>

Just one remark, there is a dark area in the equatorial zone just south of the NEB, on the p. limb, which is not visible in the other wavelengths. Clear skies,

**Marc DELCROIX**(マルク・デルクロア Tournefeuille法)

●.....*Subject: Re: 中国日全食 残念見えず*  
*Received: Sun 26 July 2009 14:45:07 JST*

阿久津様、昨夜の深夜、帰宅しました。日食、残念でしたね。こちらもかなり厚い雲に第2接触は阻まれ、皆既の途中から少し見えました。皆既後、暫くして雨も降ってきました。当日、杭州に移動し六和塔と西湖を観光しましたが、西湖付近では皆既中は、「雲を通して見えた」、という方に会いました。ちょっとした差ですね。...

**石橋 力**(Tutomu ISHIBASHI 相模原Kanagawa)

●.....*Subject: mars venus obs july from SMK*  
*Received: Sun 26 July 2009 20:20:33 JST*

Hi good morning, Here is the observations performed this morning under good conditions for mars and venus. The venus polar cap appears to be bright withish: there is 2 possibilities:- a refraction effect on the earth atmosphere (height 23°, but scope filtered with narrow bandwidth filters),- the bright dot reported by Frank Melillo had drift to the polar region so that the patch is very bright now. I am thinking for the 2nd hypothesis but this need some confirmation from other observers.

The mars view is the first of 2009 for me and some notes are included into the report (height 29° in sky). Please have good receipt of the present. Kind regards

○.....*Subject: Mars obs from SMK for 20th*  
*Received: Sat 22 Aug 2009 02:22 JST*

Hi good evening. Here is the mars obs performed last 20th. There is always this patch under Hellas that remains bright in spite of the seeing conditions, not good. At that times of obs Hellas is not accessible. My 18th obs is confirmed from my side. Kind regards.

**Stanislas MAKSYMOWICZ**

(スタニスラス・マクシモヴィッチ Ecquevilly 法)

●.....*Subject: Jupiter 25th July 2009*  
*Received: Sun 26 July 2009 20:25:10 JST*

Hi Guys, A bit more nighttime astronomy. Here is a glut of images from the 25th, when the impact site's meridian transit coincided with Jupiter's 24 deg. max. alt. over UK. Seeing wasn't too bad. We have 37 degrees alt. to look fwd. to next Aug. when its alt. won't be quite so abbreviated. Best wishes

○.....*Subject: Jup 25/26 July*  
*Received: Mon 27 July 2009 08:30:33 JST*

Hi Guys, Here are a couple from the other side of Jup. Taken here on the 26th but UT puts them into 25th.

○.....*Subject: Solar images 18th July*  
*Received: Mon 27 July 2009 18:36:51 JST*

Hi guys, I'm catching up with my solar processing since the Jupiter impact excitement, and rain. Here are a couple of nice proms from the 18th. One with my 6 inch and Daystar SS hybrid, and the wide field one with my

Coronado D'Stacked 60mm and 4x powermate.

○.....*Subject: Jupiter 27/28th July*  
*Received: Tue 28 July 2009 19:44:58 JST*

Hi Guys, Here is Jupiter in rapidly deteriorating transparency, hence the early images before culmination.

C11@f30 Best wishes

○.....*Subject: solar images 27th July*  
*Received: Wed 29 July 2009 22:57:22 JST*

Hi Guys, Here are a few images from the 27th. A nice big AR appeared on the North Eastern "on" limb. Unfortunately we have had inclement weather during daylight hours since, so no follow up has been possible from my location. I imaged it in white light too, not green, not red, but real white light, with a Herschel wedge with ND filters. I see from the web, that area has now gone, but there is another active region, this time on the South Eastern quarter.

Oh by the way if anyone has trouble imaging off a wedge and uses a pair of crossed linear polarising filters, to adjust final brightness, I found that changing to ND filters cured the problem. Why? I wish I knew, as it works perfectly for visual use! Best wishes

○.....*Subject: Jup 31 July 2009*  
*Received: Sat 01 Aug 2009 19:55:07 JST*

Hi Guys, Tantalising seeing, Jupiter was glowing through fast moving thin clouds although noisy the seeing looked steady, I had setup my C14 earlier in the day and wanted to get a set up for this massive 48 arc sec Jup. After getting these few images at f/23 I then played barlows and bino viewers. best wishes

○.....*Subject: Jupiter 30 July 2009*  
*Received: Sat 01 Aug 2009 21:12:22 JST*

Hi guys, Seeing was not too bad, worth a bash as it was scar night. This was the best of the bunch. C11 f30 alt 23 degs. Trutech filters, 2x TV barlow plus old ATK filter drawer system plus 1.25 adaptor. Best wishes

○.....*Subject: Jupiter 3rd August 2009*  
*Received: Wed 05 Aug 2009 01:39:18 JST*

Hi Guys, here a a few images taken in strange seeing, Jup was flapping like a flag in the wind but detail was actually quite good. Best wishes

○.....*Subject: The Sun 31st July 09*  
*Received: Wed 05 Aug 2009 19:51:31 JST*

Hi Guys, here are a couple of images of an AR that is now in the south west quadrant. Its seems a large area of disturbance for so little fireworks. One can't help feeling, it's just biding it's time, a bit like a crowd gathering for a riot A lot of summer daytime cloud at this location so not much chance for solar snapping. Scope was Solarmax 60 DS with 2.5 and 4X Powermates. Using straight blocking filter unit as opposed to the std. diagonal one.

○.....*Subject: Jupiter images evening of the 7th Aug*  
*Received: Sun 09 Aug 2009 06:28:53 JST*

Hi Guys here are a couple of Jupiter images gleaned from the "before midnight better but poor seeing", with Jup about 20deg up. I was looking fwd to seeing the impact again but seeing was so bad, zzzzzzzzzzz's were a better bet. Best wishes

○.....*Subject: Solar Prom 7th August*  
*Received: Mon 10 Aug 2009 21:38:03 JST*

Hi Guys, Here are a couple of images of an unusual

prominence. I'm sure Monty will remember drawing it. It was very bright enabling it easily to be imaged in reasonable detail at the same time as the surface, with my .5 A 60mm Coronado. The higher res composite image is a montage of 6 frames, taken with a 5 inch AP@f32 with a .65A Daystar / SS Hybrid H $\alpha$  filter. Best wishes

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○.....Subject: Jupiter 11th/12th August

Received: Sat 15 Aug 2009 19:53:53 JST

Hi Guys, Here are some image sets of Jupiter. The IR were taken whilst Jupiter was a little lower down. The Irg/Lrgb image shows any small red spots up quite well.

○.....Subject: Jupiter 15th Aug  
Received: Mon 17 Aug 2009 20:19:04 JST

Hi Guys here is some data from the UK; Pity it clouded over before reaching its culmination height of 23 degrees. Nevertheless watching the GRS is always enjoyable, and the impact longitude came into view, see enhanced inset.

○.....Subject: Prominence 9th August  
Received: Mon 17 Aug 2009 20:41:37 JST

Hi Guys, Things are still a little quiet still on the Sun, but Jupiter has been keeping me busy. Here is quite a nice prominence from the 9th. 5 inch AP plus .65 A Daystar. best wishes

# TEN YEARS AGO (168)

--- CMO #222 (25 August 1999) pp2579~2594 ---

1999年八月には火星は「おとめ座」から「てんびん座」に移動して、夕方の南の空にあった。レポートは十五回目となり、16Julyから15Aug迄の報告である。視直径 $\delta$ はこの期間に10.3"から8.6"に小さくなり、傾き $\phi$ は北向きだが、期間末には16°Nまで浅くなった。位相角 $\iota$ も44°と最大になり、大きく欠けていた。季節 $\lambda$ は31Julyに180°Lsとなり北半球の秋分を通過していた。この年の梅雨明けは平年並みであったが、天候は安定せず、シーイングも不良で、小さくなった低空の火星を追うには難儀であった。この期間の報告者は、追加報告を含めて12名となり、外国からの報告が減りつつあった。レポートには、期間中に南半球は春分となって、南極冠の出現時期となり注目されたが、傾き $\phi$ が北向きなことと視直径 $\delta$ の低下もあり、思わしい観測は得られていない。また、30Juneに北極冠縁に発生したMGSの黄雲の画像の解説と考察がある。

LtEで、外国からは、S WHITBY (USA), M WASIUTA (USA), N FALSARELLA (Brasil), F OGER (France), D PARKER (USA), A HEATH (UK), D PEACH (UK), J BELL (USA), E SIEGEL (Denmark)の各氏のもの、国内からは、阿久津富夫(栃木)、岩崎徹(福岡)、日岐敏明(長野)、宮崎勲(沖縄)、尾代孝哉(和歌山)、伊舎堂弘(沖縄)の諸氏からの来信が紹介されている。HEATH氏からお便りには、1999年の火星観測の纏めが同封されていて、コラム記事仕立てで紹介されている。また、11Aug1999にあった皆既日食の観測レポートも記事になっている。ヒース氏達は、トルコまで出掛けて晴天に恵まれ、観測・撮影に成功したとの事である。直後に起きた地震には、トルコから出国したあとで、幸運にも免れたとしている。尚、#222巻末には福井だよりが掲載された。福井の編集部のお三方の近況が「福井だより」として紹介されている。Nj氏は既にプラネタリウム勤務になっている。

TYA(48)は、CMO#076(10Aug1989)を採り上げているが、廿年前の火星は、合に向かって太陽に近づいていた。「LtEスペシャル」は四回目となり、1988年十一月の一ヶ月間に寄せられた来信が紹介された。国内の十七名から二十六通寄せられている。廿年前のコラム記事には、C Hernandez (Florida)氏と B Adcock (Australia)氏の便りが採り上げられていた。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmo/222/tya048.html>

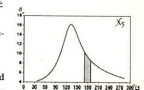
村上 昌己 (Mk)

ISSN 0917-7388  
COMMUNICATIONS IN 東亞天文學會「火星通信」 since 1986

## MARS No. 222 25 August 1999

OBSERVATIONS Published by the OAA Mars Section

CMO Mars Report # 15 (1998/99) OAA Mars Section  
○.....今回は16Jul(1999)17:11から15Aug(1999)18:18までの一ヶ月間の観測を扱う。最良、視赤緯が19°Sまで落ちて、火星はスピカからアンタレスの方に近寄り、南中高度は低く、薄明時の観測のみが頼みである。16Julyには視直径 $\delta$ は10.3秒角であったが、15Augには8.6秒角まで落ち込んだ。位相角は42°から44.3°(最大値)まで増えた。中央緯度は21°Nから16°Nに落ち、北極は向こうに引きつつある。火星の季節は31Julyに北半球の秋分(180°Ls)を通過したから、北極は以後終日影の中である。  
This time we review the observations made during the one-month period from  
16 July 1999 (171° Ls) through 15 August 1999 (188° Ls).  
Already the apparent declination of Mars went down to 19° S, and it is to shine near Antares now far from Spica. The altitude has thus become unfavourable from the Northern Hemisphere, and we have just to catch the planet at twilight in the evening. On 16 July, the apparent diameter  $\delta$  was 10.3" while went down to 8.6" on 15 August. The phase angle increased from 42° to 44.3° (maximal). The central latitude  $\delta$  was from 21° N to 16° N: Thus the north pole has been going away. On 31 July (autumnal equinox at 180° Ls), the sub-Solar point passed the equator, and since then no sun-shine to the North Pole whole day.



- .....今期『火星通信』へ報告及び追加報告のあった観測者及び観測状況は次の通りである:  
We are thankful to the following observers who directly contributed this period to the CMO:  
AKUTSU, Tomio 阿久津 富夫 (Ak) 栃木・鳥山 Karasuyama, Tochigi, Japan  
4 Sets of CCD Images (7, 9 July 1999) J/60x32cm spec equipped with a Telestar 2  
HIKI, Toshiaki 日岐 敏明 (Hi) 長野・箕輪 Minowa, Nagano, Japan  
5 Drawings (25, 29 July; 4, 8, 11 August 1999) 400x22cm speculum  
ISHIDOH, Hiroshi 伊舎堂 弘 (Ish) 那覇 Naha, Okinawa, Japan  
15 Drawings (16~20, 23 July; 6, 9 August 1999) 340, 400x31cm speculum  
IWASAKI, Tohru 岩 徹 (Iw) 北九州 Kitakyushu, Fukuoka, Japan  
11 Drawings (18, 19 July; 9, 11, 12, 14 August 1999) 400x21cm speculum  
MINAMI, Masatsugu 南 政次 (Mi) 福井 Fukui, Japan  
30 Drawings (16, 21, 24, 25, 26, 31 July; 1, 2, 7 August 1999) 400x20cm refractor  
MURAKAMI, Masami 村上 昌己 (Mk) 藤原 Fujiwara, Kanagawa, Japan  
15 Drawings (20, 26, 31 July; 1, ~4, 6, 7, 8, 11 August 1999) 425x20cm speculum

○ . . . . *Subject: Seeing Miracle*  
*Received: Thu 20 Aug 2009 20:18:44 JST*

Hi Guys, The seeing in the UK has been amazing for three days. Last night's reminded me of Barbados 2006 and UK April 14th 2004. This is an IR image showing Ganymede and Europa in transit, Io is about to go behind Jupiter. Seeing like this is very rare especially at 23° alt'. "something wonderful" did indeed happen. 29Gb of data to process! Best wishes

○ . . . . *Subject: Jupiter 17th August*  
*Received: Sat 22 Aug 2009 21:41:24 JST*

Hi guys, Here in my part of the UK we have had clear skies and half decent to good to real nice seeing, on 17th, 18th, 19th, 20th, 21st (with jet stream), and tonight the 22nd is also supposed to be clear and no jet stream. Bit of a processing backlog building up These are some images from the 17th in "fair for the altitude" seeing, with a little burst of good, for the 2333 image. Night time temps have been from 12 to 18C, with some dew towards the end of the session. The Barge following the GRS just seems to be surfing the wave and going nowhere.

I see Christophe has just drawn attention to the light spot in the GRS, and it is indeed visible in a few of these attached images. Best wishes

**Dave TYLER** (テラ イト・タイラー Bkh 英)

● . . . . *Subject: Re: Possible impact in 1917*  
*Received: Mon 27 July 2009 07:42:43 JST*

Hi Don, Thanks to Tom Dobbins for showing us this interesting observation. In the BAA Memoir for this apparition, the same spot is shown in a drawing by F. Sargent on 1917 August 18 (presumably the same date as Zlatinskii's -- scan attached). This drawing seems to be of better quality and the spot was not black, unlike a satellite shadow. In this Memoir, T.E.R. Phillips said of it: "The dark elongated spot in the N. Trop.Z. [is] probably a survival from the previous apparition. It is No.7 in [1917/18], No.17 in [1916/17]." It was tracked up till 1918 Jan.12. The BAA Memoir for 1916/17 however does not give any description nor illustration of this spot, so it is not clear if it was really in the NTropZ. Further search of archives would be needed to find out. Although the spot might have resembled an impact, it equally might have resembled the thoroughly meteorological dark spots that appeared in the NTropZ last month.

Best regards,

**John H ROGERS** (ジョン・ロジャース Cambs 英)

● . . . . *Subject: Jupiter, July 25th*  
*Received: Mon 27 July 2009 11:52:12 JST*

Hi all, Here's another processed image from the 25th.

Seeing reasonably good on this occasion.

[http://www.digitalsky.org.uk/jupiter/2009-07-25\\_01-06-25\\_RGB-720.jpg](http://www.digitalsky.org.uk/jupiter/2009-07-25_01-06-25_RGB-720.jpg)

○ . . . . *Subject: Re: Jupiter images evening of the 7th Aug*  
*Received: Sun 09 Aug 2009 07:21:45 JST*

Uncanny Dave - we were imaging (for the 23:08 one) at the same time! Similar situation to you - the seeing started to break down rapidly as Jupiter moved closer to culmination. At one point, when the decorative spike on the front face of my shed got in the way, I had to stop imaging and turned to the Moon only to realise just how poor the conditions had got. After that, the z's got me too.

Best regards,

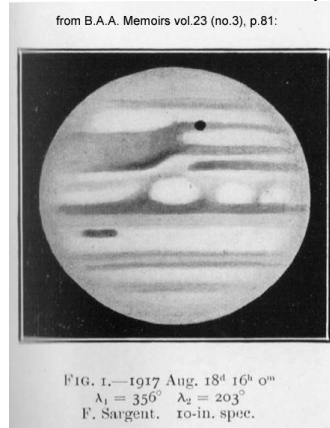
**Pete LAWRENCE** (ピート・ローレンス Selsey 英)

● . . . . *Subject: Re: Invitation to the IWCMO*  
*Received: Tue 28 July 2009 05:47:01 JST*

Dear Masatsugu: Please accept my apologies for the delayed reply. I regret very much that my professional obligations (combined, I must confess, with a bit of financial distress that is ultimately attributable to reckless Wall Street bankers) will not permit me to attend the conference in Paris. I am greatly flattered to have been considered worthy of your invitation, rest assured.

I am also pleased to report that Don Parker, with whom I am in frequent contact, tells me that his wife Maureen is responding very favorably to the regimen of chemotherapy. For your possible interest, I have attached an article that I disseminated this past weekend. As you know, back in the mid to late 1990s when Bill Sheehan and I attempted to find evidence of Jovian impact features in the observational record, the overwhelming consensus was that visible impact scars like those produced by SL-9 were very rare. Estimates that such events occurred once every 100 to 300 years were often quoted. Now, after the lapse of only 15 years, we've got a second, very similar event. So, admittedly with a data base of two points, it now seems far more plausible that examining the historical record is a worthwhile exercise. After all, it is estimated that the object that produced Wesley's recent impact feature measured only hundreds of meters in diameter. Such impacts much be not too uncommon for the Solar System's second largest gravity well. Consider as well the literally hundreds of Kreuz sungrazing comets striking the Sun that SOHO has detected since 1995. After you read the attached article, bear in mind the following encouraging news... John Rogers of the BAA has written that he has found an observation made by a British observer about 24 hours after Zlatinskii's. The agreement is excellent.

By the way, the reference by Zlatinskii to Fauth in AN is spurious < in July Jupiter had not been observable, as it was too near conjunction. The reference is in fact to the prior year's apparition, when some NEB features were prominent, but Zlatinskii's feature is almost surely a different feature. While justifiably cautious, Rogers notes that <sup>3</sup>the BAA Memoir for 1916/17 however does not give any description nor illustration of this [Fauth] spot, so it is not clear if it was really in the NTropZ. Further





search of archives would be needed to find out.<sup>2</sup>

Again, I greatly regret that I will be unable to enjoy the Paris conference. With warmest regards, as always

○ . . . . **Subject: Possiblr impact in 1917**  
**Received: Wed 29 July 2009 00:28:52 JST**

John: Many thanks for providing the drawing by Sargeant so promptly. The similarity of drawings by Sargeant and Zlatinskii is really quite striking. Curiously, the *Astronomische Nachrichten* report by Philipp Fauth (Volume 204, No. 24, 427-430) that was cited by Zlatinskii does not seem to refer to the feature that Zlatinskii observed on August 18 and 26. Observing Jupiter in the morning twilight in between July 6 and August 4, Fauth reported "a strong, dark, elongated spot" that took the form of "a thickening of the northern edge of the NEB that protrudes slightly into the NtrZ," mimicking the appearance of the "violin-shaped" spots that he had observed in 1895 and 1896. (These features were mundane "barges.") Fauth notes that during the previous 1916-17 apparition he observed no fewer than 26 discrete spots at this latitude. The feature depicted by Zlatinskii and Sargeant does not match Fauth's description, as it is depicted as completely detached from the NEB and situated entirely in the NTrZ.

As you know, back in the mid to late 1990s when I was intrigued by Zlatinskii's observation (and by others less suggestive) as a possible impact scar, the overwhelming consensus was that visible impact scars like those produced by SL-9 were very rare. Estimates that such events occurred once every 100 to 300 years were often quoted.

### An Impact on Jupiter in 1917? Thomas A. Dobbins

Two decades ago I acquired a copy of *The Nature of the Planets* by the Russian astronomer V.V. Sharonov, originally published in Moscow as *Priroda Planet* in 1958. A rather arid textbook on planetary science, it was translated into English by the Israel Program for Scientific Translations and published in Jerusalem in 1964.

Sharonov's chapter "Topographic Description of Individual Bodies in the Solar System" is accompanied by an extensive bibliography that includes many references unfamiliar to Western readers. With memories of the SL-9 impacts still fresh in 1999, one of these titles immediately piqued my curiosity when I was casually perusing the tome in 1999: Zlatinskii, V.M. "Chernoe pyatno na Yupiter" ("Black Spot on Jupiter"), *Izvestia Obschestva Mirovedeniya*, Volume 6, No. 5 (29): 263-264 (1917). I enlisted the help of Yuri Petrunin and Eduard Trigubov of the Telescope Engineering Company, who were able to provide both an excellent photostatic copy of the article from the library of the Ukrainian Academy of Sciences in Kiev as well as an expert translation.

"Black Spot on Jupiter" describes an unusual Jovian marking that Zlatinskii observed on two nights in August of 1917 and depicted in an accompanying drawing. It may be one of the best candidates for a Jovian impact scar in the observational record.

Before providing a verbatim translation of the article, permit me to provide a bit of historical context. The First World War was entering its third bloody year in August of

Now, after the lapse of only 15 years, we've had a second, very similar event. So, with a data base of admittedly only two points, it now seems far more plausible that examining the historical record is a worthwhile exercise. After all, it is estimated that the object that produced Wesley's feature measured only hundreds of meters in diameter. Such impacts much be not too uncommon for the Solar System's second largest gravity well. And do consider the literally hundreds of sungrazing comets striking the Sun that SOHO has detected since 1995.

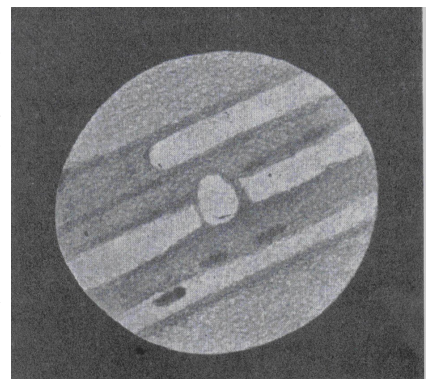
It would be very interesting to learn how the Zlatinskii/Sargeant feature, (which you note was followed through January of 1918 when the planet was very well placed for observation, opposition having occurred late in November with a declination of +20 for Jupiter) evolved. Did it smear out in longitude or simply fade away like Douglas MacArthur's "old soldier"? Warmest regards,  
 ○ . . . . **Subject: Possible impact in 1917 -- new information**  
**Received: Fri 31 July 2009 04:15:25 JST**

John: In my last communication I wrote:

"Curiously, the *Astronomische Nachrichten* report by Philipp Fauth (Volume 204, No. 24, 427-430) that was cited by Zlatinskii does not seem to refer to the feature that Zlatinskii observed on August 18 and 26. Observing Jupiter in the morning twilight in between July 6 and August 4, Fauth reported "a strong, dark, elongated spot" that took the form of "a thickening of the northern edge of the NEB that protrudes slightly into the NTrZ," mimicking the appearance of the "violin-shaped" spots that he had observed in 1895 and 1896. (These features were mundane "barges.") Fauth notes that during the previous 1916-17 apparition he observed no fewer than 26 discrete spots at this latitude. The feature depicted by Zlatinskii and Sargeant does not match Fauth's description, as it is depicted as completely detached from the NEB and situated entirely in the NTrZ."

My conclusion that the feature reported by Fauth and

1917. Following a long series of military defeats, the Russian monarchy had been overthrown in the spring of that year and a weak provisional government ruled the country. It was in the midst of this chaos that Zlatinskii observed Jupiter from remote Kazan, an important industrial and commercial city located 450 miles to the east of Moscow. The planet would reach opposition on November 28, so in mid-August it was a prominent object in the predawn sky...



During the current apparition of Jupiter this year, correspondent V.M. Zlatinskii observed the planet for the first time on August 18 (new style) through the 110 millimeter Heyde refractor at a magnification of 185X from the Engelhardt Observatory of the University of Kazan. "The first thing I noticed," he writes, "was the sharp elliptical, and very dark spot in the North Tropical Zone near the northern edge of the planet's equatorial band [NEB]. The round trailing edge of the back of the spot I at first assumed to be the shadow of one of Jupiter's moons, but I was perplexed by the unusual appearance of this 'shadow.' The following day, after calculating that this had not been the transit of a satellite shadow, I happened upon an article by Philipp Fauth [the ↗

the spot described by Zlatinskii were not the same feature was reached in undue haste and is certainly incorrect. I have now located a second report by Fauth in a subsequent issue of *Astronomische Nachrichten* (Volume 205, No. 3, 47-48) that concerns "observations of the new spot in the NTrZ on July 21, 22,23, and 24." Fauth notes that the feature in question was not present in the NTrZ during the previous apparition, and that it was indeed a new feature as of early July when his observations resumed following conjunction. (In his previous report in *AN*, Fauth had given the following System II longitudes: preceding edge = 189.2°, center = 196°, following edge = 202.7°). Fauth's description of the "extremely dark spot" in the previous AN report (as "a thickening of the NEB") does remain questionable however, for he had complained of very poor definition caused by Jupiter's low altitude in the morning twilight. On 27 July he reported that the northern edge of the NEB contained "smaller, weaker spots" at 38° and 279°, as well as "weak streaks" at 5°, 74°, 305°, and 335°. I am aware that during the years 1914 to 1920 the NEB-NTrZ interface was the site of numerous compact spots, both dark and bright. The Fauth-Zlatinskii feature seems to be different in character. On August 26 Zlatinskii reported that the length of the "black spot" was "about the same" as that of the GRS. Consulting Figure 10.30 in your magisterial tome *THE GIANT PLANET JUPITER*, I derive a GRS length of about 33° for 1917. Fauth's early July measurement of the "black spot" spanning 13.5° of longitude suggests that the feature had more than doubled in length by late Au-

gust era'spreminent German selenographer] dated July 7 in the just-received issue of *Astronomische Nachrichten*, describing his discovery of this spot. (Upon receipt of information from V.M. Zlatinskii, the editor of *Cosmic News*, subscribers were sent Notice 92 regarding the "black spot" and its passage across the central meridian, written by member S.G. Nathanson.) Fauth compares the spot's shape to that of a violin and estimated its longitude as 196 degrees. The spot is so prominent at the present time that it is the darkest feature on the planet and should be called the "black spot" to differentiate it from the Great Red Spot, with which it has much in common: both are located in the tropical zone on either side of the equator and are of about the same width. The "black spot" is easily visible in small aperture telescopes and I only hope that during the current apparition of Jupiter amateur astronomers will have the opportunity to see it.

On the same day, Jupiter showed yet another interesting feature for observing: in the Equatorial Zone there appeared a large bright spot whose edges lay upon both edges of the planet's equatorial belts. It crossed the central meridian at 15h. Its eastern edge was bordered by a dark vertical line which joined both equatorial belts, connecting them through a central 'equator.' The third interesting feature on Jupiter is a South Tropical Disturbance that can be observed concurrently with the "black spot." The North Equatorial Belt was, on this day, darker than the South Equatorial Belt and revealed two dark thickenings ["barges"]. The South Equatorial Belt appeared divided. Both the NEB and SEB were diffuse, and the former was darker than the latter. The

gust and was exceptionally large for a mundane NTrZ spot. Of course, one is tempted to recall how the SL-9 impact sites were smeared into elongated dusky streaks by wind shear, but based on your paper "Evolution and Drift of the Visible Impact Sites" I believe that longitudinal growth occurred more rapidly than in this instance and was especially pronounced at the preceding end.

**Tom DOBBINS** (トム・トビンス OH 美)

● . . . . *Subject: Jupiter-09-07-27*  
*Received: Tue 28 July 2009 07:02:38 JST*

Hi all, last night I had the first chance, to image the new impactstructure. Around midnight I brought my Telescope to the balcony to cool down. The days before we had thunderstormweather and the scope was inside ...

At 2 o'clock local time I wanted to start capturing the GRS, but my DMK did not work. After a lost hour I changed my camerasetup to the older videomodul SK1004-X and started capturing. Seeing conditions where changing fast, some thin cirrusclouds went through and a lot of videos I had to throw away: A good sequence at 01:34 UT brought success:... Later the clouds became stronger and I am still processing several avi's... Cheers

○ . . . . *Subject: jupiter from 09-08-06*  
*Received: Fri 07 Aug 2009 04:28:53 JST*

Hi all, last night I could take Jupiter under perfect conditions: CS

**Silvia KOWOLLIK**

(シルヴァ・イア・コワリク Ludwigsburg 徳)

northern polar region was, as before, very dark. The image was very satisfying.

The second time I saw the "black spot" was on the 26th of August with the 12-inch Grubb refractor at 170X at 13h45m. This time the "black" and "red" [GRS] spots were nearly symmetrical to the central meridian; that is, the former was at the western and the latter at the eastern side of the disc. The size of the "black spot" was about the same as that of the Great Red Spot, measuring the larger dimension. The Great Red Spot appeared pale as at the beginning of the year and did not justify the name. Unfortunately, the image was boiling and I was unable to be more precise in my observing and measurements.

I am struck by the fact that when Zlatinskii first glimpsed the "black spot" he mistook it for the shadow of a Galilean satellite, a widespread impression shared both by observers of the SL-9 impact scars in 1994 and by Anthony Wesley when he discovered the recent 2009 impact. It is also very telling that the NEB "barges," normally among the darkest Jovian markings, are depicted as far more subdued in Zlatinskii's sketch than his "black spot." I doubt if a seasoned planetary observer like Zlatinskii would have so urgently attempted to draw attention to his "black spot" if it were a mundane feature. Clearly, he regarded it as something truly extraordinary. The feature's morphology and its rapid expansion in longitude are both consistent with an impact origin. Perhaps Zlatinskii witnessed an event that was all but overlooked during one of history's most tumultuous years. □



●.....**Subject: Re: Abstract second**  
**Received: Wed 29 July 2009 22:58:22 JST**

Thanks Masatsugu. For you registration it is ok. Formally we would just miss 5 Euros, since we ask half the price (so  $70 + 35 = 105$  E in total) for accompanying persons (reception and trip to juvisy if (we should) we have enough space in the bus) - but we'll see at the time of the meeting...

I saw the eclipse through clouds (see

<http://www.usr2.obspm.fr/~biver/SUN/22JUL2009/ECLIPSE220709-1h25-1h38-anim.gif>)

from 300 km west of Shanghai (5h drive by bus during the night/morning) and did attend the IWCA-IV meeting the next day in Shanghai - an opportunity to meet young Chinese comet amateur and professional astronomers - these 2 weeks were quite busy... Regards,

○.....**Subject: IWCMO update**  
**Received: Thu 30 July 2009 22:51:09 JST**

Dear all, Here are the latest news about the upcoming Mars observers and historian meeting: I have put the list of registred participants on the webpage:

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

Thanks for those who have already sent their registration - they can check if they are on the list and tell me if there is a problem (I haven't listed accompanying persons). To other (potential) participants, I suggest to do so rapidly: we set a deadline tomorrow for the 70 Euro registration fare (80 after), also because later your registration cannot be processed before end of august.

If some are interested we might also talk about the recent cometary impact on Jupiter at this meeting, and I am sure there is still a lot to do with historical records on possible earlier observations on cometary impact on Jupiter... There will also be a dedicated session for amateurs/professional observation of this event at the upcoming EPSC meeting (at nearly the same time :- ( but you can come at the IWCMO just after to combine two meetings in a single long trip to Europe!) Regards,

**Nicolas BIVER** (ニコラ・ビヴァール Meudon 法)

●.....**Subject: Jupiter 2009/7/25 01h07 UT**  
**Received: Thu 30 July 2009 23:01:43 JST**

Hello all, to the beautiful discovery of Wesley impact (congratulations!) a recording I made during mijn holiday in France. Jupiter and impact Area 2009/7/25 01h07 UT Alt. 28 degr. Regards

○.....**Subject: Jupiter 2009/7/26 01h17 UT**  
**Received: Mon 03 Aug 2009 20:19:16 JST**

Good morning, I have a little time made for processing images during my vacation. Recording I made during my vacation in Burgundy. You will see a major disruption in NEB. Jupiter 2009/7/26 01h17 UT 280mm SCT@f25 RGB filters ATK-2HS. Met vriendelijke groet

**Richard BOSMAN** (リチャルト・ボスマン Enschede 蘭)

●.....**Subject: Re: IWCMO update**  
**Received: Thu 30 July 2009 23:31:46 JST**

Nicolas, I and my wife will be attending and are looking forward to the conference. I have been in close contact with Bill. My studio curator will process our registrations tomorrow. Regards,

○.....**Subject: Re: Meeting schedule and abstracts for September 18 am session**  
**Received: Fri 21 Aug 2009 06:27:13 JST**

Hello again Bill. -Please find attached the abstract for my presentation: MARS IN REAL TIME. Thanks and have a great trip. -----

### 1909 Mars in Real Time 2009

Time travel has fascinated mankind for centuries and tales abound with thought provoking conjecture if such journeys really were possible. With this conference we celebrate the actual journey through a hundred years of time and our long distance love affair with the planet MARS. The enigma of the so called "Martian Canals" has also been part of that sojourn, often filled with dramatic, colorful debate. If one could return and observe Mars of the late nineteenth and early twentieth centuries it might be possible to gain a better understanding of the "Canal Controversy" so prevalent in that time. Certainly, as we now know, the planet Mars is a world of dramatic dust storms that radically change its surfaces appearance. In my personal (a mere 25 years ) history of Mars observations I have witnessed features appear, disappear, expand and shrink. The Mars we know today must be a very different planet than that of a century ago. Aside from the invention of a "Time Machine" there seems to be little hope of returning to that time period re-examine the red planet of yesteryear with modern instruments and scrutiny.

Yet, there might just be a way.

My presentation demonstrates, a unique way to use modern technologies and techniques to examine existing information from a century ago. By using contemporary tools I will hopefully enlighten our understanding of what was being seen a century ago on the planet Mars.

**Greg MORT** (グレック・モート MD 美)

●.....**Subject: Re: IWCMO update**  
**Received: Fri 31 July 2009 01:07:05 JST**

On 30 July 2009, at 14:51, Nicolas.Biver wrote:

If some are interested we might also talk about the recent cometary impact on Jupiter at this meeting, and I am sure there is still a lot to do with historical records on possible earlier observations on cometary impact on Jupiter... There will also be a dedicated session for amateurs/professional observation of this event at the upcoming EPSC meeting (at nearly the same time :- ( but you can come at the IWCMO just after to combine two meetings in a single long trip to Europe!)

Unfortunately, you can't really. You would be had pushed to attend a session on Thursday, September 17th 12:30-13:45 in Potsdam and then a reception in Paris at 16h, or to make any event in Paris that day. The clash of these two conferences has been most unfortunate, and this needs to be noted.

○.....**Subject: Jupiter 2009 July 25**  
**Received: Sat 01 Aug 2009 09:07:06 JST**

Here is an extensive set of images covering the transit of the impact feature on the 25th. It has spread and I think darkened since I first imaged it on the 20th, and it is interesting how the shape is different in IR compared to R-smaller and more elongated. The colour images here are normal RGB composites and do not incorporate IR.

<http://www.davidarditti.co.uk/astro/images/jupiter/09/jup2009-07-25RGB-DLA.jpg>

<http://www.davidarditti.co.uk/astro/images/jupiter/09/jup2009-07-25I-DLA.jpg>

<http://www.davidarditti.co.uk/astro/images/jupiter/09/jup2009-07-25R-DLA.jpg>

<http://www.davidarditti.co.uk/astro/images/jupiter/09/jup2009-07-25G-DLA.jpg>

<http://www.davidarditti.co.uk/astro/images/jupiter/09/jup2009-07-25B-DLA.jpg>

○.....**Subject: Re: More updated on Venus' Mysterious white spot...**  
**Received: Sun 09 Aug 2009 00:47:18 JST**

Also there seems to be a latitude issue. The spots imaged by Yuri Goryachko and Konstantin Morozov are

about -50 whereas the Venus Express spot looks to be about -30.

I agree the spots on the limb in amateur images all look like limb-sharpening brightening of the polar collar around -50 to -60.

○ . . . . **Subject: Jupiter 2009 July 26**  
**Received: Sat 15 Aug 2009 07:12:35 JST**

Fair seeing for the altitude. Longitude of BA covered but not the scar.

<http://www.davidarditti.co.uk/astro/images/jupiter/09/jup2009-07-26RGB-DLA.jpg>  
<http://www.davidarditti.co.uk/astro/images/jupiter/09/jup2009-07-26R-DLA.jpg>  
<http://www.davidarditti.co.uk/astro/images/jupiter/09/jup2009-07-26G-DLA.jpg>  
<http://www.davidarditti.co.uk/astro/images/jupiter/09/jup2009-07-2B-DLA.jpg>  
<http://www.davidarditti.co.uk/astro/images/jupiter/09/jup2009-07-26I-DLA.jpg>

**David ARDITTI** (デヴィッド・アーデイチ Edgware ME 英)

● . . . . **Subject: RE: IWC MO update**  
**Received: Fri 31 July 2009 02:32:24 JST**

Nicolas: It looks like my schedule here in Houston will prevent me from attending the IWC MO event. I wish you the best on what I am sure will be a fantastic conference.

. . . . All the best,

**Don BATES** (ドナルド・ヘイツ Houston TX 美)

● . . . . **Subject: Mars images - 20 & 26 July 2009**  
**Received: Sat 01 Aug 2009 20:40:50 JST**

Hi all, Here two sets of Mars images taken during my holidays always under disappointing conditions. They now reveal however the NPH and the tiny SPC summer remnant.

<http://astrosurf.com/pellier/M090720-CPE>

<http://astrosurf.com/pellier/M090726-CPE>

(B shot through clouds). The 26th set is taken at the beginning of the second "cross-equatorial" dust storm season (Ls 310-350), at a martian date similar to the events of december 2003, october 2005 and november 2007. Watch for the Acidaliu-Chryse dust machine!

○ . . . . **Subject: Jupiter images 16 & 25 July 2009**  
**Received: Sun 02 Aug 2009 19:46:02 JST**

Hi all, Here are some Jupiter images - the 25th with the Bird strike. Weather over western France during July has been driven permanently by a strong zonal westerly pattern and the seeing has always been so-so.

<http://www.astrosurf.com/pellier/J090716-CPE>

<http://www.astrosurf.com/pellier/J090725-CPE>

Apart of the impact, the near-IR SEB just following the GRS is maybe taking its 2007 pre-fading aspect? (flat, uneven, with no details except the red barges) To be followed a better session on the 26th.

○ . . . . **Subject: Jupiter images 26 July 2009**  
**Received: Sun 02 Aug 2009 20:37:55 JST**

Hi again, Here the "best" set of last month. Longitudes just between BA and the GRS. Seeing was good in near-IR...

<http://www.astrosurf.com/pellier/J090726a-CPE>

<http://www.astrosurf.com/pellier/J090726b-CPE>

○ . . . . **Subject: Re: More updated on Venus' Mysterious white spot...**  
**Received: Sat 08 Aug 2009 20:15:23 JST**

Hi all, We have recently saw this Venus Express's image on the BBC page :

<http://news.bbc.co.uk/2/hi/science/nature/8179067.stm>

This spot does look unusual indeed. Does anyone know when the image has been taken, just to determine its position? Apart of this, many images seem to show the spot - but, the longitudes observed at not the same than Frank's one. Y. Goryachko and C. Morozov made strip maps recently and shows it clearly:

<http://alpo-j.asahikawa-med.ac.jp/kk09/v090720r.htm>

We should take care of not make a confusion with the usual bright polar collar, seen thicker on the limb and so artificially "big". This must be the case for Paul's image on July 20th, as well as Yuri's July 16th, and Don on the 24th (those last three correspond in longitudes system II, and have been taken four days apart), The longitudes of the feature on Frank's shot was L2 ≈ 130-150°, and the bright feature imaged by the other four colleagues was around L2 = 200°. Best wishes

○ . . . . **Subject: Re: More updated on Venus' Mysterious white spot...**  
**Received: Sun 09 Aug 2009 19:17:26 JST**

Frank, many thanks for the link - The explanation proposed by the authors (?) at the end looks quite more plausible to me; a particularly vigorous convective event of the polar vortex, important, but not different from past activity. The south one seems maybe more active isn't it? I remember when it was very bright in September 2004 (this was an interesting episode). Here is a set of images by Jean-Jacques Poupeau :

[http://www.astrosurf.com/pellier/V040917\\_JPO](http://www.astrosurf.com/pellier/V040917_JPO)

It continued up to October at least that year (Damian has some nice views also)

○ . . . . **Subject: Jupiter images 11/12 August 2009**  
**Received: Mon 17 Aug 2009 03:17:54 JST**

Hi all, A correct night, with good seeing in near-IR (above all at the end).

[http://www.astrosurf.com/pellier/J090811\\_12a-CPE](http://www.astrosurf.com/pellier/J090811_12a-CPE)

(RGB, R)

[http://www.astrosurf.com/pellier/J090811\\_12b-CPE](http://www.astrosurf.com/pellier/J090811_12b-CPE)

(IR, Violet, UV). They span the longitudes from BA to the STB remnant (around which some jetstreams spots must be caught). An experience with the Baader UV filter, that has a shorter transmission and should offer a better separation from blue light than the Schuler one. The image looks to confirm this, with a better reproduction of the UV -absorbing haze (less general contrast)... It's however quite much difficult to use. Regards

○ . . . . **Subject: Jupiter images (17th August)**  
**Received: Sat 22 Aug 2009 21:32:10 JST**

Seeing was just correct but at last allowed me to observe the region of the GRS since quite a while...

<http://www.astrosurf.com/pellier/J090817a-CPE> (RGB)

<http://www.astrosurf.com/pellier/J090817b-CPE>

(IR, violet, UV). First note a white spot just inside the GRS in near IR! It does appear on some other images I have seen (Tyler and Akutsu, at least) and seems to be rotating with the vortex. Maybe some rotation time can be calculated...The SEB f. the GRS looks really quiet, but still in RGB no fading of the belt is apparent.

Best wishes

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

● . . . . **Subject: FW: Art Show & Telescope Time?**  
**Received: Tue 04 Aug 2009 02:10:19 JST**

Dear Masatsugu, Just an interim note—but as you will see, it looks good. We will have time on the 24-inch, but only about two hours each night. I suggest we each attempt to make one drawing, and perhaps we change the order of observers so each can get the maximum of exposure along the Martian longitude range. We may be able to stretch the time allocated to us—I don't know. I am sending this to Greg Mort also; it's really he who is the one who is getting the telescope time, and we would be guests, but I think he would love to have a chance to observe with you (as I will).

Would you kindly give some thought to just what dates we want to allocate given the Martian season and orientation? I assume Nix Olympica would be the highlight, but perhaps there are other things you can recommend out of your incomparable knowledge of the planet's phenomena. It will be a great pleasure to show you around Lowell Observatory, and perhaps the Grand Canyon, Meteor Crater, the Painted Desert, Oak Creek Canyon (where Lowell completed "*Mars and Its Canals*" and John McCain, the Right-wing American presidential candidate, lives). I am assuming that in terms of travel from Japan, there will be no direct flight, but probably you would fly to LA or San Francisco and then from there fly to Phoenix. I'm not sure about how to get from Phoenix to Flagstaff—in the past I traveled by car. We can work this out; perhaps Kevin Schindler can give us some advice. All the best,

○ . . . . **Subject: Lowell Observatory**  
**Received: Thu 06 Aug 2009 03:20:03 JST**

Dear Masatsugu, Hope you are well. I have been thinking more about the Lowell trip. I suppose what could happen—and might be planned as we get more definite dates—would be for me to fly to Phoenix and try to meet up with you there. We could rent a car and drive up together to Flagstaff—it's several hours I think by car.

You, Greg and I will be together in Paris so we can hopefully discuss there. I look forward to seeing you and your wife. Best,

○ . . . . **Subject: Re: Lowell Observatory**  
**Received: Sat 08 Aug 2009 03:11:34 JST**

Dear Mastasugu, Sorry to hear of the problems with your eyes. I was bothered with some kind of allergic-reaction for about a year before the November 2005 observing of Mars and was also having difficulties with my eyes--among other things that interfered with my ability to enjoy that opportunity. I hope they can resolve this without difficulty to you.

I think we can work out plans for Lowell Observatory--perhaps Greg, yourself and myself can somehow meet up in Phoenix and drive together to Flagstaff.

More urgently, Laurie Hatch, Randall Rosenfeld and I are now busy trying to organize a hotel in Paris--the person who was working on this was able to find accommodation for himself yesterday but today that facility is filled and we are without plans. . . .

○ . . . . **Subject: Re: Lowell Observatory**

**Received: Wed 12 Aug 2009 21:18:01 JST**

Dear Masatsugu, Laurie and I were able to find a small hotel near the Eiffel Tower, so that is taken care of.

I am also working on the PowerPoint and also have the task of trying to coordinate several speakers for what has developed as a morning session (September 18 in the AM) on the historical and artistic approaches to Mars observations. Unfortunately, as I have encouraged many of these participants' attendance, I will probably have very divided attentions at the meeting. I believe all of those presenting will have marvelous things to say.

I look forward to your presentations and you do not do justice to your facility in English--though I realize how difficult it is. . . .

Looking forward to seeing you soon,

○ . . . . **Subject: Bill Sheehan's itinerary in august september**  
**Received: Thu 20 Aug 2009 09:45:10 JST**

August 20 Depart Mpls. 9:40PM NWA 104  
 . . . . .

Sept. 24 Charles De Gaulle Airport NW 8454 Depart Paris 9:40 AM Arrive Amsterdam @ 11 AM, Depart Amsterdam @1:25 PM KL 1224 Arrive MSP 3:25 PM

○ . . . . **Subject: Meeting schedule and abstracts for Sept 18 am session**  
**Received: Fri 21 Aug 2009 01:08:01 JST**

**Abstracts and speakers for the morning session, Paris Observatory, 9 am to 12 noon, Friday, September 18, 2009.**

The Art of Mars: views of the planet in the era of pencil, sketchpad, brush and paint.

**9 am to 9:30 am. William Sheehan.**

*"A Pretty Picture, Signor Schiaparelli, but you mustn't call it Mars!"* Overview of some of the themes and challenges of drawing Mars in the pre-photographic and pre-CCD era. Mars is a planet that has been described as appearing "so subtle ... at the eyepiece--ethereal, delicate, floating, at times seemingly without mass or obvious three-dimensionality--even when the seeing was exceptional." As such it presents difficulties and ambiguities--what John Ruskin referred to as the "Mystery," the ultimate inability to see and record every aspect of Nature--that artists and astronomers resolved by attempting to exploit the technologies of the art-forms they inherited as part of the Western tradition of art from the Florentine masters of the Renaissance to contemporary practitioners in 19th century art (including Turner and the Impressionists). Special attention is paid to the dichotomous representations and maps of Mars by the British landscape painter Nathaniel Green and the Italian professional astronomer Giovanni Virginio Schiaparelli and the two grand traditions of naturalistic landscape painting and terrestrial map-making that they embodied.

**9:30 to 10:00 am. Maria Lane.**

*"Geographies of Mars"* Attempts to depict Mars divided between mimetic representations of its appearance in the telescope to schematic maps which employed the conventions of maps (and rather than being concerned with overviews of major features were increasingly preoccupied with minor details and devising names for these details, which gave them a greater sense of importance and reality than they deserved). The late nineteenth century astronomers increasingly employed these conventional forms derived from terrestrial mapping in depicting Mars, a project that involved mastering the planet and subduing it to terrestrial

forms of knowledge. These schematic maps increasingly changed the dynamic of Mars observation and set up a competition between observers chasing ever finer details as a way to achieve status within the astronomical community—even Antoniadi, in his early days as B.A.A. Mars Section director, was caught up in it—and the overinterpretation of detail inevitably contributed to claims of the artificiality of Martian surface features and the Lowellian Mars theory. These detailed maps were considered the authoritative standards for the geography of the planet until Antoniadi published his observations with the Grand Lunette in 1909 and photography replaced drawing in determining the iconic image of the planet.

**10:00 to 10:30 am. Richard McKim**

*“Antoniadi the Man and Mars Observer”* The IWC MO meeting is being held in connection with the centennial of the paradigm-shifting observations of Mars made with the Grand Lunette at Meudon by E.M. Antoniadi. Antoniadi’s life, including personal characteristics, and the stages of his career are summarized by one of his most important biographers—who has also held, as Antoniadi did, a position as the Director of the British Astronomical Association’s Mars Section. Antoniadi’s international connections—artistic skills—and experience as a Mars observer developed during several years of employment as one of Camille Flammarion’s assistants at Juvisy and in coordinating the contributions of numerous (and sometimes inconsistent) records of fleeting details submitted to him by amateur observers of the planet as B.A.A. Director. He also engaged in correspondence with many of the eminent observers of Mars of his period—including Schiaparelli, Lowell, and Barnard—and was also a skilful writer and propagandist for his ideas, so when he finally published his results from the 1909 opposition, they made a decisive impact and completely changed the field.

**10:30 am to 11:00 am. Randall Rosenfeld**

*“Through Grotesque Polygonations and Geminations to the Skin of a Leopard: the place of graphic technique in Antoniadi’s 1909 revelation.”* Rather than concentrate on Antoniadi as an astronomer, we turn here to his development as a planetary draughtsman (and he is generally regarded as perhaps the greatest of all time). Even today the apparently limitless gradations of surface texture he could portray is striking (La Planete Mars, 1659-1929). From the perspective of modern visual observers of the planet, his style of Martian representation has come to be regarded as orthodox, his graphic conventions as normative, and his techniques widely imitated. But at the time his work seemed like a complete break with the past—as stunning in its way as Giotto’s images to the peasants of Tuscany, or Monet and Pissarro’s paintings that introduced the now-familiar techniques of impressionism.

Antoniadi’s 1909 “revelation” with the Grand Lunette and its momentous aftermath would have been unthinkable apart from the images he created to convey what he saw and his view of the “reality” of the Martian surface which underlay those images. This presentation characterizes Antoniadi’s style of scientific illustration and places it within the context of its possible artistic and scientific antecedents and raises questions such as: “Is the illustrator always in full conscious control of tools and techniques, or do they at times control the artist?” “Does the choice of technique determine what is actually seen, or what is selected for showing to others?”

**11:00 to 11:30 am. Laurie Hatch**

*“The ruddy planet with a ruddy old telescope.”* An accomplished artist recounts her efforts to rise to the artistic challenge of representing Mars with techniques available during the nineteenth and early twentieth century during two extended campaigns of work with the Lick Observatory’s 91 cm refractor in 2003 and 2005. She will share her images and describe her experiences and insights. The hope is to rescue Antoniadi and others like him from the respectful but fusty distance of history and reclaim some of the excitement and triumph of those hours of “splendid seeing” he enjoyed at Meudon as Mars rose over the domes and spires and rooftops of Paris below.

**11:30 am to 12:00 noon. Greg Mort** or panel discussion. (Note: I haven’t actually received a synopsis, or even an indication that Greg wishes to participate in this session; I think he does, but don’t wish to push it on him. He’s a magnificent artist who like Laurie has actually sketched and painted Mars at the eyepiece (en plein air). If Greg is going to participate, he will send you an abstract of what he wishes to present. If he is going to present during another session or what not, we will finish off with a panel discussion (inviting comments from audience members) of the topics presented this morning.

**Bill SHEEHAN** (ウイリアム・シーハン MN 美)

● . . . . *Subject: 45 Cap, Europa and Io conjunction - 3rd August 2009*  
*Received: Tue 04 Aug 2009 08:04:53 JST*

Today (3rd/4th August) in parts of Europa, Africa, South America and the Middle East, Jupiter is due to occult the star 45 Cap - something that happens very, very rarely. For other parts of the world, including mine, the star wasn’t occulted by Jupiter but instead gathered close enough in the field of view for a conjunction with Europa and Io while I was out imaging Jupiter this morning. Here’s my image from the close approach. 45 Cap is on the far left, Europa is next, and Io (with albedo features) is on the far right.

<http://www.mikesalway.com.au/2009/08/04/45-cap-europa-and-io-close-approach>

Europa and Io were on a path to have their own occultation in about an hour from the time the image above was taken, but clouds came and ruined my chance to capture their encounter. Jupiter images from the session, complete with the Wesley Impact Scar, will be posted later on. Thanks for looking.

○ . . . . *Subject: Jupiter - 3rd August*  
*Received: Wed 05 Aug 2009 22:05:22 JST*

Hi all, On the night of the 3rd August, what started as typically below average seeing, finally improved as the seeing reached a respectable almost 7/10 and gave some of my best views of Jupiter this year. I was able to catch the 6th magnitude star 45 Cap in the same field of view as Europa and Io, which was a nice surprise.

<http://www.mikesalway.com.au/2009/08/04/45-cap-europa-and-io-close-approach>

The seeing was improving nicely, but high cloud and then thick cloud brought my night to an end. The two attachments show one in reasonably good seeing and one in typically average. More here:

<http://www.mikesalway.com.au/2009/08/06/jupiter-with-the-wesley-impact-scar-3rd-august>

○ . . . . *Subject: Jupiter, Ganymede + Shadow, and Wesley Impact Scar - Aug 5th*  
*Received: Thu 06 Aug 2009 14:41:53 JST*

Hi all, Last night started like every other - typically

below average seeing, but instead of going back to bed, I waited it out - hoping it would get better. And it did, finally. The seeing peaked at 7 - 7.5/10, on a night when there was a fair bit going on. The GRS transited earlier, followed by the Wesley Impact Scar, along with Ganymede's shadow and then Ganymede itself. The image below is the first one I've finished processing, and is one of the last of the session. It shows the Wesley Impact Scar at top left, and Ganymede's shadow and Ganymede on the right. The "Bird Strike" has really elongated out over the past few days, as it gets torn by the jetstream. Ganymede shows significant real albedo features that match up to various simulators. The dark region on the low left is the "Galileo Region", and the bright spot at the top is the "Osiris crater" and rays. More here:

<http://www.mikesalway.com.au/2009/08/06/jupiter-ganymede-shadow-and-wesley-impact-scar>

More to come from this night as I find time to process it all. Thanks for looking.

○.....**Subject: Jupiter, Io and Shadow transit (and animation) - 8th August**  
**Received: Mon 10 Aug 2009 07:46:21 JST**

Hi all, On Saturday night 8th August, I was able to capture some images of Jupiter with Io and its shadow in transit. The seeing was just above average - good enough to capture albedo features on Io, including the dark polar regions in contrast against the cloud tops of Jupiter.

The best image from the session is attached. Io and its shadow are seen on the left, the Wesley Impact Scar is at top left just setting, and Oval BA is on the top right just rising. And click below to see an animation of all 6 frames captured on the night, in seeing that started at about 4-5/10 and improved slightly to peak at 6/10 but never got any better than that.

<http://www.mikesalway.com.au/2009/08/10/jupiter-with-io-transit-and-animation-8th-august>

○.....**Subject: Jupiter at Opposition - 14 Aug 2009**  
**Received: Mon 17 Aug 2009 18:14:45 JST**

Hi all, I had some nice clear skies on the night of the 14th Aug, 2009 -when Jupiter was at opposition for the 2009 season. Unfortunately the seeing conditions were below average, but luckily they steadied for a few minutes just before midnight- long enough for me to capture just one run in slightly above average conditions, before the seeing turned bad again. Each channel was recorded for 48 seconds, and 600 frames from each were used to make the final RGB image. Continuing to hope for clear and steady skies- it's just not coming this year yet.

<http://www.mikesalway.com.au/2009/08/17/jupiter-at-opposition-14th-august-2009>

Thanks for looking.

**Mike SALWAY** (マイク・ソルウェイ NSW 澳)

●.....**Subject: mars sketch 04/08/09**  
**Received: Wed 05 Aug 2009 00:23:16 JST**

Hi, this is my sketch from 4 august.

Date: 04/08/09 Time: 03h30 UT, observer: Kris Smet location: Bornem, Belgium, instrument: 12" f/5 dobson magnification: 200x, seeing: poor, filters: none

○.....**Subject: mars sketch 15/08/09**  
**Received: Sat 15 Aug 2009 17:49:43 JST**

Hi, this is my sketch from 15 august.

Date: 15/08/09, Time: 03h30 UT, ...

magnification: 300x, seeing: fair, filters: none; greetings,

**Kris SMET** (クリス・スメト Belgium 比利時)

●.....**Subject: RE: Jupiter 5 August**  
**Received: Thu 06 Aug 2009 07:35:05 JST**

It seems that this one is staying around longer than the last one we saw. Maybe something a bit heavier tried to get through its atmosphere this time. Such is life. Thanks for the image.

**Jeff BEISH** (ジエフ・ビッシュ Lake Placid FL美)

●.....**Subject: Mo 07 Aug 09**  
**Received: Sun 09 Aug 2009 11:53:41 JST**

今年の初観測です。Seeingは朝方にしては良く、7/10程度。時間がたつほど良くなりました。透明度も4/5と良く、まずまずの像が撮れました。合成F60 XP24mmで撮って2倍に拡大しています。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/090807/Mo07Aug09.jpg>

火星を撮る数時間まえに撮った木星は、衝突痕が中央に見えています。

お体はどうですか？はやく良くなる事を祈っています。また、色々とお教え下さい。よろしくお願ひします。

○.....**Subject: Mo 11 Aug 09**  
**Received: Wed 12 Aug 2009 22:45:08 JST**

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/090811/Mo11Aug09.jpg>

今朝は雲が多くSeeingも5/10と良くはありませんでしたが、まずまずの像を得ることができました。10日には、ガニユメデを撮って見ましたので、お送りします。色がはっきりしません。

○.....**Subject: Mo 13 Aug 09**  
**Received: Sun 16 Aug 2009 22:14:10 JST**

13日の画像をお送りします。Seeingは良くなく、4/10。雲も多く、撮るのに苦労しました。ソリス・ラクスあたりが夕方に見えていました。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/090813/Mo13Aug09.jpg>

○.....**Subject: Mo 17 Aug 09**  
**Received: Thu 20 Aug 2009 23:25:53 JST**

17日の画像をお送りします。Seeingはまずまずで、6/10。雲は多いものの透明度も3/5程度でした。撮った画像を見ると、がさがさと動き回っていますが、処理してみると少しは見られる像になりました。ソリス・ラクスが良くわかります。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/090817/Mo17Aug09.jpg>

○.....**Subject: Mo 19 Aug 09**  
**Received: Sat 22 Aug 2009 20:09:35 JST**

19日の画像をお送りします。Seeing6/10でまずまずです。私のところからは19時にならないと火星が上がってきませんので、まだ、40分おきに二回ぐらいしか撮れません。今回もソリス・ラクスが濃く見えていました。

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/090819/Mo19Aug09.jpg>

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

●.....**Subject: Re: More updated on Venus' Mysterious white spot...**  
**Received: Sun 09 Aug 2009 13:55:15 JST**

In a message dated 8/8/2009 7:15:23 A.M. Eastern Daylight Time, chrispellier@aliceadsl.fr writes:

<http://news.bbc.co.uk/2/hi/science/nature/8179067.stm>

Thanks Christophe for posting this.



Some Venus' imagers are backtracking their observations at least a week before July 19th. The spot did show some brightening on July 15th and something must trigger an outburst after one atmospheric rotation later. It is quite difficult to determine the exact longitude of the spot since it is moving along the -50 latitude due to the winds. I have one observer Willem Kivits of the Netherlands did some images of Venus within a week before July 19th. Yes, it did show something unusual bright in his image of July 15th. But no one expected the spot to be aggressively larger and develop into a core-like appearance on July 19th.

I haven't image Venus since that day due to my personal schedule and the inclement weather. I'm just hoping many of you guys will follow-up. We have several images taken during that part of the week but at different longitude than of the white spot.

I think we must depend on the Venus Express mission for further development with the help by the earth-based observations. See here also for more information:

[http://venus.wisc.edu/news\\_features.html](http://venus.wisc.edu/news_features.html)

○.....**Subject:** *Re: More updated on Venus' Mysterious white spot...*  
**Received: Mon 10 Aug 2009 00:42:22 JST**

In a message dated 8/9/2009 6:17:48 A.M. Eastern Daylight Time, chrispellier writes:

[http://www.astrosurf.com/pellier/V040917\\_JPo](http://www.astrosurf.com/pellier/V040917_JPo)

Christophe and Rich M. -

Yes, I do remember during the morning apparition of September 2004 (also in Oct. and Nov. 2004) when the Southern hemisphere displayed many bright areas and they were seen near to the SPR. They spread nearly all longitudes around the globe. I have attached some of my images here. To compare with the recent one of July 19th, the spot is concentrate more in one area. Now there is a Venus Express probe. The scientists can follow this feature much more easily and they can study the spot's evolution. It is like a step closer to find out what trigger an outburst and how it can be compared with other white spots of the past.

○.....**Subject:** *Re: More updated on Venus' Mysterious white spot...*  
**Received: Mon 10 Aug 2009 01:03:36 JST**

David - Yes. This may be one spot that will be studied the most! We have more earth-based observations plus the Venus Express!

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

●.....**Subject:** *Aug 7/ Jupiter with touching moons*  
**Received: Sun 09 Aug 2009 14:43:38 JST**

A montage of two images recorded with my 10" mak on August 7th:

[http://www.avertedimagination.com/img\\_pages/jupiter\\_20090807.html](http://www.avertedimagination.com/img_pages/jupiter_20090807.html)

combining a brief moment of good seeing with Jupiter at 30.5 degrees and the start of an occultation of Europa by Io that began about 40 minutes later. I'm very happy to have Jupiter back above the power lines that ring my backyard! best wishes,

○.....**Subject:** *Mark Anthony*  
**Received: Tue 11 Aug 2009 11:32:03 JST**

Greetings all, A slightly more favorable look at Antho-

ny's historic discovery from my last image set of Aug 7: [http://www.avertedimagination.com/img\\_pages/Jupiter\\_20090807\\_2.html](http://www.avertedimagination.com/img_pages/Jupiter_20090807_2.html)  
31 degrees elevation, A/P 10" mak/cassegrain at f30  
approx. 400 frames averaged/ DMK 21AF04 captured and processed on a Mac. cheers,

**Alan FRIEDMAN** (アラン・フリードマン Buffalo NY美)

●.....**Subject:** *Re: Jupiter images evening of the 7th Aug*  
**Received: Sun 09 Aug 2009 18:54:00 JST**

Hi all, Here's my attempt is lousy seeing just over an hour later: Cheers

<http://www.astro-sharp.com/images/jupiter2009/Jup-2009-08-08-00-31-RGB-IDS.jpg>

**Ian SHARP** (イアン・シャープ WS 英)

●.....**Subject:** *Re: More updated on Venus' Mysterious white spot...*  
**Received: Sun 09 Aug 2009 19:23:31 JST**

Christophe is right: my BAA Venus report of 2004 describes in some detail the enormous northward expansion of the S. polar cuspidal area in that year, a phenomenon only visible in the UV images. I don't regard this current event as exceptional, but it is a good example of such phenomena and shows the amateur community that they must take even more routine images!

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

●.....**Subject:** *Mars Images (August 9th, 2009.)*  
**Received: Mon 10 Aug 2009 07:28:52 JST**

Hi all, Here are some images from Aug 9th. This is my first set of this apparition. Seeing was reasonable, but transparency was never good. Syrtis Major is nicely seen, with the NPH also present. No signs of any dust activity on this hemisphere. Best Wishes

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/090809/DPc09Aug09.jpg>

**Damian PEACH** (デミアン・ピーチ Bkh 英)

●.....**Subject:** *Re: Wesley the Rock Star*  
**Received: Tue 11 Aug 2009 07:44:04 JST**

Make sure you watch the others as well, they're inspired:

Hotel Mauna Kea

[http://www.youtube.com/watch?v=XPdTIHK1h\\_0](http://www.youtube.com/watch?v=XPdTIHK1h_0)

Born to Heterodyne

<http://www.youtube.com/watch?v=mtQpRkA8yQA>

**Anthony WESLEY**

(アンソニー・ウェズリー Murrumbateman, NSW 澳)

●.....**Subject:** *Jupiter 10th August*  
**Received: Thu 13 Aug 2009 23:27:42 JST**

Hi all, Seeing was reasonable good although transparency was very poor, this always seems to coherent above my place. Some new processing approach. best wishes

**Jan ADELAAR** (ヤン・アテラール Arnhem 荷蘭)

●.....**Subject:** *Re: 灰色雲について*  
**Received: Sun 16 Aug 2009 16:56:15 JST**

南政次様、メール頂戴しながら、日食のときはしゃぎすぎですっかり疲れまして、お返事も致さず大変申し訳ありません。私どもの船も晴天域を探すのにずいぶん悩みましたが、なんとか硫黄島の近くでせまい晴れ間に出ることができ、美し

いコロナを見ることができました。今回の日食は大部分の地方が悪天候だったようですので、私もは幸運でしたが、私はいつもの癖で講話をしたり、実況説明をしたりで、つい歳を忘れ、いまだに疲れたなあという感じがぬけません。それでもひとつの引退興行がうまくいったという気持ちでおります。

さて、お尋ねの火星面灰色雲の件、一口で申しますとどうも釈然といたしません。佐伯さんのご著書の176ページに書かれておられます1950年3月末の雲、私の記録を調べますと4月1日と4日のスケッチにソリス・ラクスの南方に雲を描いておりますが、「ソリスのあたり黄白色、あまり輝かぬ」とあるだけです。このスケッチは佐伯さんにご報告していたと思いますが、その時連絡し合って追跡したというような記憶はございません。

反省として、私はあまり雲に注意を払わなかったなあという気持ちもありますが、灰色の雲を見たというような記憶はなく、故人に失礼ですが佐伯さんはよく変わったものを見る人だなといった印象を持っております。

以上きわめて不十分なお返事ですが、お許しください。なお、私はメールにスケッチを添付するという技術がありませんので、後ほどコピーを郵送させて頂きますが、少しお待ちください。大変遅れたうえにお役に立ちそうもないお返事ですがご勘弁ねがいます。

**村山 定男** (Sadao MURAYAMA 東京Tokyo)

●.....Subject: *Jupiter 8/20/2009*  
Received: *Fri 21 Aug 2009 03:29:09 JST*

Not quite the conditions David had, but I managed a fair result given the poor seeing. The Wesley scar is

barely visible still, though unassuming.

**Sean WALKER** (シヨン・ウォーカー S&T 美)

●.....Subject: *Mars 15/16/18/19. August*  
Received: *Fri 21 Aug 2009 20:05:02 JST*

Dear Masatsugu, our family was on holiday, now we are back. Here the last images. With the best wishes

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/090815/RGh15Aug09.jpg>  
<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/090816/RGh16Aug09.jpg>  
<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/090818/RGh18Aug09.jpg>  
<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2009/090819/RGh19Aug09.jpg>

**Ralf GERSTHEIMER** (ラルフ・ゲルシュトハイマー  
Habichtswald 徳)

●.....Subject: *Image: 08-21-09 11:20 UT*  
Received: *Sat 22 Aug 22 2009 3:56 JST*

Greetings list, I shot a few sequences of Mars early this morning. Seeing appeared good enough to try a 3x barlow with my CPC 1100. Much to my surprise, I was able to pick up albedo differences on Sytris Major. I wanted to make sure they weren't artifacts, so I checked all my old images at that CM, maps, etc, and they do appear to be actual albedo features. The NPH has formed around this CM in the last 24 hours too. I imaged approx. the same exact CM 24 hours ago with no indication of the NPH. I'm not sure about the hard white edge on the morning limb in the 3x image. I'd guess its an artifact, but suppose it could be morning clouds. Really doesn't show up in the 2xbarlow image. 3xbarlow image <http://marswatch.amaonline.com/08-21-09@1120.jpg> 2x barlow image confirming NPH.

<http://marswatch.amaonline.com/08-21-09@1100.jpg>

Regards,

**Joel WARREN** (ジョエル・ウォーレン Amarillo TX 美)

☆☆☆

シー・エム・オー・フクイ

中島 孝 Nj

- ★前号報告以降、岩崎 徹様(425)よりカンパを頂戴しました。有難うございました。不一。
- ★前号は7月27日午前に印刷・丁合し、国内・国外とも即日発送しました。藤沢(Mk氏)と横浜(Tsさん)には29日、宗像(As氏)には30日に配達された由です。不一

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

『火星通信』 #361 (25 August 2009) 編集: 浅田 正(As)、南 政次(Mn)、村上 昌己(Mk)  
中島 孝(Nj)、西田 昭徳(Ns)

Edited by: Tadashi ASADA, Masatsugu MINAMI, Masami MURAKAMI,  
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発行 Published by/for: 東亜天文学会 OAA 火星課 Mars Section

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