

## MARS

No. 396

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## OBSERVATIONS

No.22

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CMO/ISMO 2011/12 Mars Report #08

## 2011/2012 ISMO Mars Observations in the First Half of March 2012

♂..... This column is irregular but we here treat the Mars observations made during the first half of March 2012 in which the planet Mars was nearly closest to the Earth and the angular diameter was near  $\delta=13.9''$  around opposition and went down to  $\delta=13.7''$  in mid-March. The Martian season proceeded from  $\lambda=077^\circ\text{Ls}$  to  $084^\circ\text{Ls}$  just before the northern summer solstice. The phase angle was up to  $\alpha=10^\circ$  with the defect of illumination moved to the morning side.

♂..... Observations we received during the period:

**ALBERT, Jay (JAl)** Lake Worth, FL, the USA

2 Drawings (1, 14 March 2012) 310×, 400×28cm SCT

**AKUTSU, Tomio (Ak)** Cebu, the Philippines

7 Sets of RGB + 6 IR + 6 LRGB Colour + 3 L Images (2, 5, 6, 8, 12, 13 March 2012)  
36cm SCT @f/36, 55 with a DMK21AU04

**BATES, Donald R (DBt)** Houston, TX, the USA

4 Colour Images (4, ~6, 13 March 2012) 25cm speculum @f/25, 27, 30 with a ToUcam Pro II

**BOLZONI, Simone (SBl)** Santhiá, Italia

4 Colour Images (2 March 2010) 20cm SCT with a ToUcam Pro II

**BRUCE, Ian (IBr)** Maidenhead, the UK

1 Colour Image (3 March 2010) 36cm SCT @f/33 with a SKYnyx2-0

**BUDA, Stefan (SBd)** Melbourne, Australia

1 Colour + 1 R images (10, 12 March 2012) 40cm Dall-Kirkham with a DMK21AU04

**CASTELLÀ, Jaume (Jct)** Badalona, España

1 Set of RGB images (13 March 2012) 36cm SCT @f/44 with a SKYnyx 2-0M

**DELCROIX, Marc (MDc)** Tournefeuille, France

3 Sets of RGB + 3 IR Images (1, 12, 14 March 2012)

32cm speculum SCT with a Basler acA640-100gm

**EDWARDS, Peter (PEd)** Horsham, West Sussex, the UK

4 Colour Images (1, 12, 14 March 2012) 28cm SCT @f/30 with a DMK21/618

**FERNÁNDEZ GÓMEZ, Francisco José (FFn)** Ourense, España

3 Colour + 1 B images (8, 12, 15 March 2012) 20cm SCT @f/25 with a DSI III Pro

**FLANAGAN, William (WFl)** Houston, TX, the USA

4 Sets of *LRGB* Images (5, 6 March 2012) 36cm SCT @f/27 with a Flea3

**FUMEGA UCHA, Camilo (CFm)** Galicia, España

3 *Colour* Images (9, 12, 15 March 2012) 31cm speculum @f/25 with a DMK21

**GHOMIZADEH, Sadegh (SGh)** Tehran, Iran

1 *Colour* Image (9 March 2012) (28cm SCT with a DMK21AU04.AS)

**GORCZYNSKI, Peter (PGc)** Oxford, CT, the USA

4 Sets of *RGB* + 4 *IR* Images (4, 6, 7, 12 March 2012) 36cm SCT @f/28 with a DMKAU618.AS

**HEATH, Alan W (AHt)** Long Eaton, Nottingham, the UK

1 *Colour* Drawing and 2 Reports (1, 3 March 2012) 200×20cm SCT

**HILL, Richard (RHI)** Tucson, AZ, the USA

2 *Colour* Images (12 March 2012) 36cm SCT @f/22 with a DBK21AU04

**ISHIBASHI, Tsutomu (Is)** Sagamihara, Kanagawa, Japan

3 *Colour* Images (11, 15 March 2012) 31cm speculum, with a SONY HC9 Video cam

**KOHZAKI, Ichiro (Kz)** Higashi-Kurume, Tokyo, Japan

8 Drawings (12,~15 March 2012) 340, 400×20cm speculum

**KONNAI, Reiichi (Kn)** Ishikawa, Fukushima, Japan

1 *Colour* + 5 Drawings (12, 13, 15 March 2012) 500, 600×30cm SCT

**KUMAMORI, Teruaki (Km)** Sakai, Osaka, Japan

5 *LRGB Colour* + 4 *B* Images (12,~15 March 2012) 28cm SCT @f/70 with a DMK21AF04/DFK21AF04

**KOWOLLIK, Silvia (SKw)** Ludwigsburg, Germany

1 Set of *RGB* + 1 *IR* Images (9/10 March 2012) 20cm speculum with a DMK31AF03.AS

**LEWIS, Martin R (MLw)** St. Albans, Hertfordshire, UK

4 *Colour* Images (1, 10, 11, 14 March 2012) 22cm speculum @f/48, 29 with a DMK21AU618.AS

**MAKSYMOWICZ, Stanislas (SMk)** Ecquevilly, France

7 Sets of Drawings (6, 8, 11\*,~15\* March 2012)  
190×, 140×13cm Cassegrain, 190~320×20cm Cassegrain\*

**MELILLO, Frank J (FMI)** Holtsville, NY, USA

5 *Colour* Images (6, 7, 12, 15 March 2012) 25cm SCT with a ToUcam pro II

**MINAMI, Masatsugu (Mn)** Fukui City Observatory\*, Fukui, Japan

17 Drawings (3, 7, 15 March 2012) 400, 550×20cm Goto ED refractor\*

**MORALES RIVERA, Efrain (EMr)** Aguadilla, Puerto Rico

12 Sets of *LRGB* Images (1,~ 6, 9, 10, 12,~ 14 March 2010) 31cm SCT with a DMK21AF04

**MORGAN-TAYLOR, Martin (MMr)** Leicester, the UK

1 *Colour* Image (3 March 2012) 36cm SCT @f/22 with a SKYnyx 2-0M

**MORITA, Yukio (Mo)** Hatsuka-ichi, Hiroshima, Japan

2 Sets of *RGB* + 2 *LRGB Colour* + 2 *L* Images (15 March 2012) 25cm speculum with a Flea3

**MURAKAMI, Masami (Mk)** Fujisawa, Kanagawa, Japan

11 Drawings (6, 11, 12, 14 March 2012) 320×20cm *F/8* speculum

**NAKAJIMA, Takashi (Nj)** Fukui City Observatory\*, Fukui, Japan

17 Drawings (3, 7, 15 March 2012) 400, 550×20cm Goto ED refractor\*

**PARKER, Donald C (DPk)** Miami, FL, the USA

5 Set of *RGB* +1 *IR* +2 *UV* Images (1, 10, 14 March 2012)  
36cm SCT @f/42 with a DMK21AU618.AS

**PEACH, Damian A (DPc)** Selsey, West Sussex, the UK

3 Sets of RGB + 7 Colour + 2 B Images (1, 6, 8, 11/12, 14/15 March 2012)

(36cm SCT with a SKYnyx 2-0M)

**PELLIER, Christophe (CPl)** Nantes, France

5 Sets of RGB + 1 B + 5 IR + 4 Violet + 3 UV Images (2, 4, 5, 11, 15 March 2012)

25cm speculum @f/32 with a PLA-Mx

**PHILLIPS, James (JPh)** Charleston, SC, the USA

1 Colour Image (12 March 2010) 20cm Refractor (with a SKYnyx cam)

**POUPEAU, Jean-Jacques (JPp)** Essonne, France

4 Sets of RGB + 2 IR + 1 Colour Images (11, 13, 13n, 14 March 2012)

35cm Cassegrain @f/29 with a SKYnyx 2-0

**ROSOLINA, Michael (MRs)** Friars, WV, the USA

2 Colour Drawings (11, 15 March 2012) 490, 340×35cm SCT

**SMET, Kris (KSm)** Bornem, Belgium

1 Colour Drawing (14 March 2012) 210×30cm Dobsonian

**TYLER, David (DTy)** Flackwell Heath, Bucks, the UK

3 Sets of RGB & LRGB + 5 Colour + 1 L + 1 IR Images (1, 5, 11, 12, 14 March 2012)

36cm SCT with a Flea3

**WALKER, Sean (SWk)** Manchester, NH, the USA

1 Colour Image (6 March 2012) 32cm speculum with a DMK21AU618

**WARELL, Johan (JWr)** Skivarp, Sweden

6 Sets of RGB Images (1, 3, 4, 8, 13, 14 March 2012) 22cm speculum @f/17 with a ToUcam pro III

**WESLEY, Anthony (AWs)** Murrumbateman, NSW, Australia

2 Colour Images (13, 14 March 2012) 41cm speculum with a Grasshopper Express

**WILLEMS, Freddy (FWl)**

9 Sets of RGB + 2 Colour + 11 IR Images (2, 3, 7 March 2012)

36cm SCT with a DMK21AU04.AS

#### **We Further Received:**

**HEATH, Alan W (AHt)** Long Eaton, Nottingham, the UK

2 Colour Drawings and 6 Reports (3, 5, 18, 24, 25, 29 February 2012) 200×20cm SCT

**WARELL, Johan (JWr)** Skivarp, Sweden

3 Sets of RGB Images (25/26, 27 February 2012) 22cm speculum @f/17 with a ToUcam pro III

♂..... Since the Planet Mars was closest to the Earth on 5 March 2012 at around 23h GMT it was expected a lot of observations could be succeeding sent to us: So we decided to publish two consecutive reports concerning March 2012. This is the first half of the reports which treats the period from 1 March ( $\lambda=077^\circ\text{Ls}$ ) to 15 March ( $\lambda=084^\circ\text{Ls}$ ) 2012.

On 1 Mar, near the opposition day, KONNAÏ (*Kn*) watched the CM transit of Olympus Mons and obtained the result that  $\Omega$  (the longitudinal position of Olympus Mons) =  $135^\circ\text{W}$ ; This perhaps shows that the white part of Olympus Mons is deviated from the expected central position of Mons but affected by the cloud lay over the western flank.

On the day Don PARKER (*DPk*) produced an excellent set of images at  $\omega=344^\circ\text{W}$ . It is remarkable that the sinking Syrtis Mj is not bluish. Just cut by a cloud belt. Syrtis Mj is rather showing a bluish tint on the

morning side. This is a delicate timing. It is also interesting to see the shape of the outer perimeter of the npc given by PEACH (*DPc*) on 1 Mar ( $\lambda=078^\circ\text{Ls}$ ) at  $\omega=254^\circ\text{W}$ . Cf also EDWARDS (*PEd*)'s at  $\omega=247^\circ\text{W}$  on the day et al.

On 2 Mar ( $\lambda=078^\circ\text{Ls}$ ) PELLIER (*CPl*) gave an interesting set which was made of smaller images while full of details. On the day AKUTSU (*Ak*) described the area around Alba at  $\omega=105^\circ\text{W}$ .

The image set by MORALES (*EMr*) on 3 Mar ( $\lambda=078^\circ\text{Ls}$ ) at  $\omega=314^\circ\text{W}$  shows that still Hellas is not so bright. This should be remembered in this season. *EMr*'s images on the following day ( $\lambda=079^\circ\text{Ls}$ ) at  $\omega=315^\circ\text{W}$  still show a dull Hellas but at the same time show the origin of the evening mist to the east of Syrtis Mj. The images of *CPl* on 4 Mar ( $\lambda=079^\circ\text{Ls}$ ) at  $\omega=229^\circ\text{W}$  are well balanced and attentive in details. Syrtis Mj looks bluish naturally in the morning. On the other hand the image by FLANAGAN (*WFl*) on 5 Mar ( $\lambda=079^\circ\text{Ls}$ ) at  $\omega=329^\circ\text{W}$  looks to break the colour balance sticking to the blue colour. *CPl*'s image on 5 Mar ( $\lambda=079^\circ\text{Ls}$ ) at  $\omega=219^\circ\text{W}$  is well balanced in this respect.

Next important observations were those concerned with the irregularity inside Hellas: See the images obtained by WALKER (*SWk*) on 6 Mar ( $\lambda=079^\circ\text{Ls}$ ) at  $\omega=290^\circ\text{W}$  and also those by *WFl* on 6 Mar at  $\omega=308^\circ\text{W}$ ,  $313^\circ\text{W}$ ,  $318^\circ\text{W}$ . *DPc*'s image on 6 Mar ( $\lambda=080^\circ\text{Ls}$ ) at  $\omega=207^\circ\text{W}$  is interesting because Olympia is parallel to the npc. If one piece is declined on the image we will lose the relish. It is creditable to choose the appropriate angle.

*Ak*'s images on 6 Mar at  $\omega=082^\circ\text{W}$  are made at an interesting angle especially at the evening side. At the morning side Tharsis white mist is suggested but the poking aspect was not sufficient. Its eastern side is rather free from the mist (see the B image). Freddy WILLEMS (*FWl*)'s images on 7 Mar ( $\lambda=080^\circ\text{Ls}$ ) look too bluish. On 9 Mar ( $\lambda=081^\circ\text{Ls}$ ) Hellas was weaker (or declined to the rear side) on the *EMr*'s image at  $\omega=262^\circ\text{W}$ .

On 10 Mar ( $\lambda=081^\circ\text{Ls}$ ) *DPk* produced detailed and excellent images at  $\omega=245^\circ\text{W}$  and  $\omega=262^\circ\text{W}$ : Hellas looks sufficiently whitish, and Olympia is well described. See also *EMr*'s at  $\omega=250^\circ\text{W}$  on the day. BUDA (*SBd*)'s R image at  $\omega=022^\circ\text{W}$  looks excellent despite the planet shines low altitude from his place. European images on 11 Mar ( $\lambda=082^\circ\text{Ls}$ ) are all interesting to us in the description of the npr, and the Tharsis district. LEWIS (*MLs*) at  $\omega=160^\circ\text{W}$  gave an average image of the district, TYLER (*DTy*) at  $\omega=162^\circ\text{W}$  shows evening Trio with Olympus Mons having an dot: *DPc*'s images are clear in this respect and especially interesting around Olympia around the npc at  $\omega=162^\circ\text{W}$ . POUPEAU (*JPr*) from France show the white Montes, though the surrounding of the npc is slightly blurred. *CPl*'s images are instructive in each component of the colour.

On 12 Mar ( $\lambda=082^\circ\text{Ls}$ ) PHILLIPS (*JPh*) shows a faint morning Syrtis Mj at  $\omega=226^\circ\text{W}$ : See also Rik HILL (*RHl*) at  $\omega=243^\circ\text{W}$  and at  $\omega=284^\circ\text{W}$ ; the latter shows Hellas. At the Oriental area *SBd* gave a good image at  $\omega=004^\circ\text{W}$ . Otherwise from Japan, KUMAMORI (*Km*), KOHZAKI (*Kz*), *Kn* and *Ak* produced better images. Note that *PEd* also produced a good image at  $\omega=128^\circ\text{W}$  where Olympus Mons appears as a dark spot surrounded by the misty round area. See also FERNÁNDEZ (*FFn*) at  $\omega=152^\circ\text{W}$ , and FUMEGA (*CFm*) and DELCROIX (*MDc*) at  $\omega=154^\circ\text{W}$ . On 13 Mar ( $\lambda=083^\circ\text{Ls}$ ) *Km* and *Kn* joined to see the region including S Sabaeus: Especially *Kn* chased at  $\omega=340^\circ\text{W}$ ,  $000^\circ\text{W}$ ,  $029^\circ\text{W}$ . Succeedingly WESLEY (*AWs*), *Ak*, and *Kz* followed. Notable is the area of Solis L looked whitish since it was as covered by a mist on 13 Mar ( $\lambda=083^\circ\text{Ls}$ ) at  $\omega=113^\circ\text{W}$  as revealed by J WARELL (*JWr*). CASTELLÀ (*JCl*)'s RGB at  $\omega=139^\circ\text{W}$  put forward a whitish series of Tharsis Montes and the shrunk npc (plus a bit of Olympia). See also *JPr*'s images at  $\omega=145^\circ\text{W}$ . On 14 Mar ( $\lambda=083^\circ\text{Ls}$ ) a lot of good images were obtained: *DPk*'s ones at  $\omega=208^\circ\text{W}$ ,  $226^\circ\text{W}$  are interesting in the sense they describe the perimeter of the npc clearly. The latter image shows Syrtis Mj.

Olympia is thus long. Otherwise on the day see *Km* at  $\omega=346^\circ\text{W}$  and *AWs* at  $\omega=347^\circ\text{W}$ . *Kz* made a series of sketches as at  $\omega=008^\circ\text{W}$ ,  $018^\circ\text{W}$ . *SMET (KSm)* gave a sketch at  $\omega=098^\circ\text{W}$ .

On 14/15 Mar ( $\lambda=084^\circ\text{Ls}$ ) also we received many observations: Notable is the one made by *DPc* on 14/15 at  $\omega=116^\circ\text{W}$  where Olympus Mons is clearly described having a darker spot inside (looks darker because its colour is densely reddish). Ascreaeus Mons is particularly whitish. *PEd's* image at  $\omega=124^\circ\text{W}$  also shows the characteristics of Olympus Mons and cloud series around there. Refer also to *MLw's* images at  $\omega=126^\circ\text{W}$  and *DTy's* at  $\omega=130^\circ\text{W}$ . *JPr* also gave a series at  $\omega=142^\circ\text{W}$ .

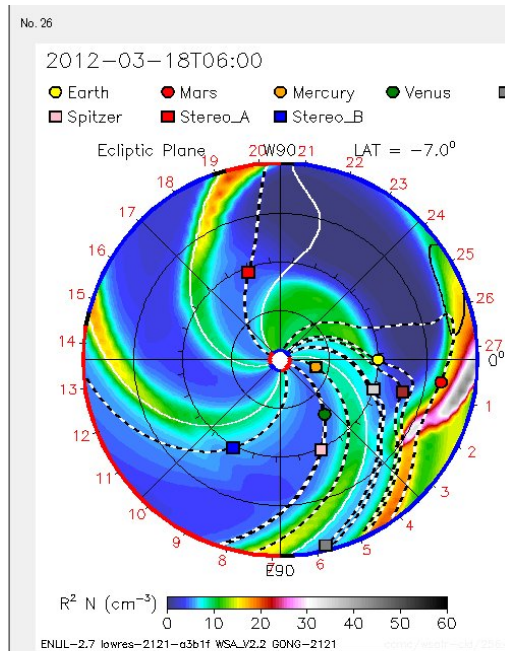
We now close this section by suggesting that a large CME (Colonial Mass Ejection) was occurring on the Sun during the period here treated and it was expected to affect some magnetic fields on Mars in due course. Here is shown a moving gif map cited from spaceweather.com:

[http://iswa.gsfc.nasa.gov/downloads/20120313\\_185500\\_anim.tim-den.gif](http://iswa.gsfc.nasa.gov/downloads/20120313_185500_anim.tim-den.gif)

where CME's original occurrence and following effect is interesting: Its effect will soon come out.

Its rather final scene on 18 March is here when the storm passed through. It is apparent the planet Mars must have been affected by the passing storm.

(M MINAMI & M MURAKAMI)



## Letters to the Editor

●.....Subject: Mars drawings

Received: Sat 03 Mar 2012 00:21 JST

Dear. Dr. Minami, Here I am attaching my latest drawings of Mars. Weather is still terrible, snowing thick and fast now.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmoms/2011/120301/Kn01Mar12.jpg>

Clear Skies and Good Seeing!

○.....Subject: A kind of opposition effect?

Received: Tue 06 Mar 2012 22:35 JST

Dear Christophe, Your complete set of RGB, R, G, B, IR, V and UV images is always very informative. And your RGBs are impressive, most natural...they look exactly like what I see with my 30cm SCT...I believe your sense of color balance to be an expression of your "DNA of Visual Observer".

On your RGB image on 04 Mar 2012 23:30GMT  $\omega=229^\circ\text{W}$   $\iota=03^\circ$  "the summit cloud of Elysium Mons" is clearly shown as an well isolated bright whitish

spot; it deserves to be called "white cloud" as it is explicit even on IR as well as on R, G and B. I also noticed on the RGB image, fairly strong reddish tint of the diagonal elongated bright patch just off to the west of EM summit cloud, which looks like a distant candle flame blowing westward. Similar tints are also seen on other imagers' images as MLw's on 01 Mar 23:52 GMT, MDc's on the same day 23:43 GMT, PEd's on the same night 22:56 GMT, as well as on yours on 02 Mar 23:28 GMT and on 29 Feb (EM summit cloud seems thinner on 29th, inconspicuous on IR), etc. MLw commented in his LtE on 06 Mar as "Interesting colour variations in the Elysium cloud...". But I think the elongated diagonal reddish bright patch was not a cloud but an albedo feature, because on your 04 Mar image set it is bright on R and IR, dimmer on G and seems inconspicuous on B. Its location and shape suggest it to be the lighter area adjoining inside the northwestern side of the classical pentagonal Elysium which has been conspicuous in this Apparition (see attached MRO MARCI image, the yellow arrow).

But what on Mars was the color? Was it a kind of the



opposition effect? Or just my illusion?

Good Seeing and Transparency!

○.....*Subject: PS*

*Received: Tue 06 Mar 2012 23:34 JST*

I rechecked your three image sets mentioned above: EM summit cloud is very dense with a definite core on the B on 29 Feb, while rather vague on the Bs on 02 and 04 Mar. So, is it possible that on each of the latter dates the Bright Elysium was seen through a thin layer of misty matter?

Best Regards

○.....*Subject: Drawings of Mars*

*Received: Thu 15 Mar 2012 16:39 JST*

Dear. Dr. Minami, Please find attached my latest drawings of Mars.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120312/Kn12Mar12.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120313/Kn13Mar12.jpg>

I couldn't have kept 40 minutes rhythm because of the unstable weather which forced me into taking sketches only in clear intervals coming unrhythmically. But the seeing seems to be getting better these days.

Good Seeing with Excellent Scopes!

**Reiichi KONNAI** (Fukushima, JAPAN)

●.....*Subject: Mars Drawings, from 12th to 15th March*

*Received: Fri 16 Mar 2012 00:46 JST*

MINAMI and MURAKAMI-sama, Here are attached eight drawings from 12, 13, 14 15 March

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120312/Kz12Mar12.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120313/Kz13Mar12.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120314/Kz14Mar12.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120315/Kz15Mar12.jpg>

Thank you for your continuous advices. Best regards

**Ichiro KOHZAKI** (Higashi-kurumé, Tokyo, JAPAN)

●.....*Subject: Mars 2012.03.01*

*Received: Sat 03 Mar 2012 01:40 JST*

Dears, Mars with my new imaging setup, I thought seeing was just ok but the images turned rather good:

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120301/MDc01Mar12.jpg>

<http://www.astrosurf.com/delcroix/images/mars20120301.jpg>

Orographic cloud on Elysium, clouds on the limbs are

visible.

All images with IR and R, G and B :

<http://astrosurf.com/delcroix/images/planches/m20120301-MDe.jpg>

Overall i'm very satisfied with what my 12.5" dobson can do on planets according to my first tries..... Sincerely,

○.....*Subject: Re: Mars 2012/03/13*

*Received: Wed 14 Mar 2012 00:02 JST*

Hi Chirstophe & all, Actually in my own images for which i was lucky to get a bit better quality than Jean-Jacques on last night (see attached), I would actually say that the cap right on North pole is very white, but the streak southern is more yellowish, don't you think?

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120312/MDc12Mar12.jpg>

○.....*Subject: Mars 2012.03.12*

*Received: Wed 14 Mar /2012 02:43:07 JST*

Dears, Under acceptable seeing, Mars with my Dobson, showing many clouds, on all volcanoes of Tharsis, Olympus Mons, Alba Patera, on the limbs and slightly visible maybe part of the equatorial belt?

<http://astrosurf.com/delcroix/images/planches/m20120312-MDe.jpg>

I like the elongated cloud over Olympus Mons, and the RGB has a kind of slight "spheric" effect, maybe due given by the clouds on the limb and on the volcanoes? These clouds are detailed in green, and really prominent in blue.

Here is the RGB magnified by 125%

[http://www.astrosurf.com/delcroix/images/mars20120312-MDe\\_large\\_x125.jpg](http://www.astrosurf.com/delcroix/images/mars20120312-MDe_large_x125.jpg)

Bons cieux!

**Marc DELCROIX** (Tournepieu, FRANCE)

<http://astrosurf.com/delcroix>

●.....*Subject: Mars 1st March*

Attached is an image from 1st March. Seeing was good for my location, reduced transparency.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120301/PEd01Mar12.jpg>

Cloud over Elysium, division in the polar cap clearly visible. (The second one) is slightly sharper than my last offering. The seeing was good with slight high cloud/mist. Again a nice cloud above Elysium, divided polar cap and hints of blue haze near the limbs. Image re-sized 1.25x. Best regards

○.....**Subject: Mars this evening**

**Received: Tue 13 Mar 2012 08:32 JST**

I set up and got ready to image Mars early this evening before the expected mist and fog formed. I managed to get one set of RGBs done then suddenly the mist came and obliterated everything within the space of 5 minutes! Really annoying because the seeing was good.

Anyway pleased with the result, lots of bluish clouds over the Volcanic peaks.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120312/PEd12Mar12a.jpg>

best regards

○.....**Subject: Re: Mars this evening**

**Received: Tue 13 Mar 2012 08:57:40 JST**

I have tweaked the colour balance, it was a bit too blue before. See below again.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120312/PEd12Mar12.jpg>

regards

**Peter EDWARDS** (Horsham, West Sussex, the UK)

●.....**Subject: Mars images 2 march 2012**

**Received: Sat 03 Mar 2012 23:37 JST**

Hi guys, Some new images, good seeing, low transparency.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120302/CPI02Mar12.jpg>

[http://www.astrosurf.com/pellier/M2012\\_03\\_01-CPE](http://www.astrosurf.com/pellier/M2012_03_01-CPE)

Best wishes

○.....**Subject: Mars on march 4th - intense Syrtis blue cloud**

**Received: Thu 06 Mar 2012 06:25 JST**

Hi all, The so-called "blue" cloud over Syrtis Major was quite intense last night!

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120304/CPI04Mar12.jpg>

[http://www.astrosurf.com/pellier/M2012\\_03\\_04-CPE](http://www.astrosurf.com/pellier/M2012_03_04-CPE)

Also prominent is the Elysium orographic cloud...

Best wishes,

○.....**Subject: Re: A kind of opposition effect?**

**Received: Wed 07 Mar 2012 07:31 JST**

Dear Reiichi, Thanks for your comments on the colors of my RGB. This is not only because of my "DNA of visual observer" as you say ;). As an analyst, I just believe that the interpretation of color images is always facilitated if the processing keeps a "natural" or "realistic" aspect. Otherwise the data is less reliable.

I did not even notice that bright reddish patch next to Elysium! I have been looking for data and found the solution on the Rosetta image in joint file to this e-mail : it is a ground albedo feature, reddish in color, and the MOLA data shows that the shape is like that because this is the western flank of the Elysium slope...

So your color analysis of images was just right: we do see it bright (and very bright) in IR and R so the red color is implied (SBd image from feb. 23 is also very nice).

The existence of an opposition effect looks also fine to me. This would explain how bright is Elysium currently in near IR while the orographic cloud is not supposed to be visible in this band!

Re: PS: I do not think however that we see the Bright Elysium in the sense that we wrote in CMO 388: the summit is much too small for my spatial resolution, and much too covered by clouds currently. But, the whole extended mountain looks bright, yes definitely... Best wishes,

○.....**Subject: Mars images,**

**Received: Wed 07 Mar 2012 07:35 JST**

Hi all,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120305/CPI05Mar12.jpg>

The orographic cloud of Elysium is setting here. Soon we will see it plainly in Europe.

[http://www.astrosurf.com/pellier/M2012\\_03\\_05-CPE](http://www.astrosurf.com/pellier/M2012_03_05-CPE)

Best wishes

○.....**Subject: Mars images,**

**Received: Wed 07 Mar 2012 07:35 JST**

Hi all,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120305/CPI05Mar12.jpg>

The orographic cloud of Elysium is setting here. Soon we will see it plainly in Europe.

[http://www.astrosurf.com/pellier/M2012\\_03\\_05-CPE](http://www.astrosurf.com/pellier/M2012_03_05-CPE)

Best wishes

○.....**Subject: Mars images 11 march 2012**

**Received: Tue 13 Mar 2012 07:55 JST**

Hi all, poor seeing last night here

[http://www.astrosurf.com/pellier/M2012\\_03\\_11-CPE](http://www.astrosurf.com/pellier/M2012_03_11-CPE)

I have been curious about the bright areas in the near IR image. Looking at Jean-Jacques's IR image from the

same night they aren't clouds at all; just some shining relief slopes because of the opposition effect, like the flanks of Olympus Mons.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120311/CP111Mar12.jpg>

Best wishes

○.....*Subject: Re: Mars 2012/03/13*

*Received: Tue 13 Mar 2012 23:36 JST*

Very nice Jean-Jacques.

On your two last sets of images, mine of the 11th and Silvia K. on the 9th, the north polar region looks really yellowish

**Christophe PELLIER** (Nantes, FRANCE)

●.....*Subject: Mars - March 2nd, 04:12ut*

*Received: Sat 03 Mar 2012 23:54 JST*

Hi Mr. Minami, This is my recent session from the 2nd of March, Weather is slightly improving here for now, Clear Skies.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120302/EMr02Mar12.jpg>

○.....*Subject: Mars - March 3rd, 04:08ut*

*Received: Mon 05 Mar 2012 01:47 JST*

Hi Mr. Minami, Here is my session from the 3rd of March (Hellas is brightening), Clear Skies.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120303/EMr03Mar12.jpg>

○....*Subject: Mars - March 4th, 04:45ut*

*Received: Mon 05 Mar 2012 11:19 JST*

Hi Mr. Minami, Here is my session from 4th of March, Clear Skies.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120304/EMr04Mar12.jpg>

○.....*Subject: Mars - March 6th, 03:55ut*

*Received: Wed 07 Mar 2012 04:11 JST*

Hello Mr. Minami, Here is my session from this morning march 6th just after the rain showers and deteriorating conditions, Clear Skies.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120306/EMr06Mar12.jpg>

○.....*Subject: Mars - Mar 9th, 04:07, Mar 10th, 03:54*

*Received: Sun 11 Mar 2012 22:06 JST*

Hi Mr. Minami, Here are two sets from the 9th, 10th of march, The weather has cleared some over here for now for favourable observations.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120310/EMr10Mar12.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120309/EMr09Mar12.jpg>

○.....*Subject: Mars - March 12th, 04:08ut*

*Received: Thu 15 Mar 2012 14:07 JST*

Hi Mr. Minami, Here I submit my latest session from the 12th of March, Clear Skies.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120312/EMr12Mar12.jpg>

**Efrain MORALES RIVERA** (Aguadilla, PUERTO

●.....*Subject: Mars images Ak19Feb12 Ak02Mar12*

*Received: Sun 04 Mar 2012 21:22 JST*

Dear Mr. Minami, I shall attach three sets of recent Mars images taken on 19 February and 02 March.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120219/Ak19Feb12.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120302/Ak02Mar12.jpg>

I did not get enough night time at the end of February because my boss of the Japanese company visited and stayed whom I was forced to receive. I have really been irritated since I had no chance to take Mars.

Best Wishes

○.....*Subject: Mars image Ak13Mar12*

*Received: Wed 14 Mar 2012 19:49 JST*

Dear Mr. Minami

I attach Mars image set on 13 March 2012. Seeing was little good while my physical condition is good.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120313/Ak13Mar12.jpg>

Best Wishes

○.....*Subject: Mars Ak05Mar12*

*Received: Tue 06 Mar 2012 13:37 JST*

Dear Mr. Minami, I attach Mars images produced on 05 March 2012. The seeing was good.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120305/Ak05Mar12.jpg>

Best Wishes

○.....*Subject: Mars Ak06Mar12*

*Received: Wed 07 Mar 2012 20:18:00 JST*

Dear Mr. Minami, I attach Mars images on 06 March 2012. It was windy night.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120306/Ak06Mar12.jpg>

Best Wishes

○.....*Subject: Mars Ak12Mar12*

*Received: Tue 13 Mar 2012 12:04 JST*

MINAMI-Sama. I took a Flue from the last week, but since there were a lot of materials to send to Japan I was force to work. I think I now recovered but have been quite weak for three days. The Mars images here are from 12 March. As I was advised by you I regu-



lated C14, and I think I could understand a bit of the reasons of some bad points. I have still some backlogs because of the flue.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120312/Ak12Mar12.jpg>

Best

○.....**Subject: Mars image Ak08Mar12**

**Received: Thu 15 Mar 2012 10:49 JST**

Dear Mr. Minami, Good morning !

I attach two sets of Mars image on 08 March 2012.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120308/Ak08Mar12.jpg>

Best wishes

**Tomio AKUTSU** (Cebu, the PHILIPPINES)

●.....**Subject: Mars on Opposition Night**

**Received: Mon 05 Mar 2012 00:46 JST**

Hiya Folks, I've taken some time out from dealing with light pollution to image Mars, on opposition night. Seeing was fairly dodgy, but I managed to get a few IR and blue runs for an IR(G)B image, here in Leicester, UK.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120303/MMr03Mar12.jpg>

Warm wishes

**Martin MORGAN-TAYLOR** (Leicester, the UK)

*Vice President, International Dark-sky Association*

●.....**Subject: Mo 29 Feb\_12**

**Received: Mon 05 Mar 2012 02:18 JST**

M MINAMI – sama: I could just spare the time for the process of the image s on 29 Feb. I have still backlogs on 16 and 26 Feb.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120229/Mo29Feb12.jpg>

Best regards,

**Yukio MORITA** (Hiroshima, JAPAN)

●.....**Subject: RE: Don Bates Mars Image 03/4/2012 -**

**Received: Mon 05 Mar 2012 03:16 JST**

Haikei M Minami, M Murakami:

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120304/DBt04Mar12.jpg>

Notes: NPC small and oval; Syrtis Major clearly seen; Sinus Sabaeus dark; Haze over Chryse

Keigu,

○.....**Subject: Don Bates Mars Image 03/5/2012**

**Received: Mon 05 Mar 2012 14:06 JST**

Haikei M Minami, M Murakami:

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120305/DBt05Mar12.jpg>

Notes: 250 L; Toucam No IR; f/27; Clear, seeing 3/5

Keigu,

○.....**Subject: Don Bates Mars Image 03/06/2012 -**

**Received: Tue 06 Mar 2012 21:37 JST**

Haikei M Minami, M Murakami:

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120306/DBt06Mar12.jpg>

Image/notes enclosed for March 6th. Best local conditions yet, and Mars is about as big as it will get. It brings back many memories to see the Red Planet in all its glory. These moments are precious, and I consider them a blessing...

All the best to you both, Keigu,

○.....**Subject: Don Bates Mars Image 03/13/2012 -**

**Received: Tue 13 Mar 2012 14:08 JST**

Haikei M Minami, M Murakami-sama:

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120313/DBt13Mar12.jpg>

f/30; 3/13/2012 02:37 UT; 75 deg 100% humidity; no wind. Cloud over Nix Olympica?

All the best to you both,

Keigu,

**Donald R BATES** (Houston, TX)

●.....**Subject: Re: Mars on Opposition Night**

**Received: Mon 05 Mar 2012 05:36 JST**

As per Martin's observation, the imaging conditions were not good last night and I was clouded out shortly after 22:30, but here's a Mars pic from opposition night.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120303/IBr03Mar12.jpg>

Regards,

**Ian BRUCE** (Maidenhead, the UK)

●.....**Subject: Mars Image - March 4**

**Received: Mon 05 Mar 2012 12:07 JST**

Gentlemen, Attached is a set of Mars images from March 4. Seeing was very poor through a strong jet stream overhead.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120304/PGc04Mar12.jpg>

Regards,

○.....**Subject: Mars image - March 6**

*Received: Wed 07 Mar 2012 11:42 JST*

Gentlemen, Attached is a set of Mars images from March 6. Seeing was about average despite windy conditions.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120306/PGc06Mar12.jpg>

Regards,

**Peter GORCZYNSKI** (Oxford, Connecticut, the USA)

●.....*Subject: Mars from Thursday 1st March 2012*

*Received: Thu 06 Mar 2012 09:24 JST*

Hi, Another view of Mars this time from 1st March.

Reasonable seeing and a good blue channel.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120301/MLw01Mar12.jpg>

Interesting colour variations in the Elysium cloud that I also see on Marc Delcroix's image from about the same time. Regards,

**Martin R LEWIS** (St Albans, the UK)

[www.skyinspector.co.uk](http://www.skyinspector.co.uk)

●.....*Subject: RE: Mars 22 February*

*Received: Tue 06 Mar 2012 10:48 JST*

Hi guys, The question about RT is whether it corresponds to a real Chasm. I thought the consensus in the 2009-2010 apparition was that there was no chasm. If that is still the case, then RT isn't a rift, but could either be a wall of airborne dust or a line of dark sand dunes. My last blog for the Mars Alerts and observations page shows a dark circular ring on the NPC. There is no sign of a linear feature in December.

Best regards,

**Jim MELKA** (Chesterfield, MO)

●.....*Subject: RE: Mars 22 February*

*Received: Tue 06 Mar 2012 17:02 JST*

Hi Jim, I thought that the MOLA topographic data pretty much proved that there is no physical valley in the North Polar Cap in the region of Rima Tenuis. MOLA vertical resolution is good to approximately 1 foot (30 cm) and shows no major entrant into the cap at a longitude of 320 degrees W. The polar dune field surrounds the residual NPC and is what creates the classical dark ring known as the Lowell band. The polar dune fields do not cross the residual cap. How-

ever, the dune fields do cross sections of the seasonal cap and is what creates the outlier Olympia (Lemuria) as is currently seen in the NPC. The dark rift that separates Olympia from the residual cap is the section of the dune field known as Olympia Undae. My understanding is that, when visible, the Rima Tenuis has been seen several times during an apparition but somewhat sporadically after the first sighting. Even considering the vagaries of atmospheric seeing it would seem that the RT is a transitory feature. The only logical explanation I am aware of would be dust flows crossing the cap. Due to the advancements in cameras, software and processing, amateurs are seeing dust flows intruding onto or crossing the cap with some regularity even during the current aphelic apparition.

By far the largest entrant into the residual NPC is Chasma Boreale and dust has been seen within or near the entrance of Chasma Boreale with some regularity in spacecraft imagery, I think. At night katabatic winds will carry cold polar air downslope and out through the entrance of the canyon and south of the cap. During the day some winds may at times blow up the canyon. Chasma Boreale terminates about half-way across the polar cap. A curious fact is that if you were to extend the arc of Chasma Boreale past its terminus to the other side of the cap, the arc exits the cap at a longitude of about 320 degrees W, the longitude of Rima Tenuis. I don't know if there is any connection between RT and the Chasma Boreale (I am not saying there is) but it is at least a curious coincidence. I don't know of any other feature that would influence a preferential dust flow across the cap in the region of the RT.

Don & Sean's image on Feb 22 shows the Chasma Boreale on the west side of Acidalius but the entrance of the rift at the edge of the cap is obscured by dust. Their image along with a few other peoples images seem to show a rift running almost all the way across the cap. Chasma Boreale only goes about half way across the cap even as far out as Ls 150 degrees. It doesn't get any longer, it just widens and becomes more obvious. So, without invoking dust as a possible

explanation to extend the length beyond the physical rift, I got nothing for an explanation. The MARCI image for Feb 22 shows dust from northern Acidalius, into Baltia and up onto the cap but dust does not appear to be extending beyond the length of the physical rift.

Just to be clear, the Chasma Boreale rift is not in the vicinity of the Olympia outlier, which is on the other side of the polar cap.

It would be interesting to hear other people's thoughts. Thanks,

○.....*Subject: RE: Mars 22 February*

*Received: Wed 07 Mar 2012 17:55 JST*

Hi Damian, Are you asking about images that show the Rima Tenuis or the rift formed by Chasma Boreale?

The image Christopher Go just took on March 6, 2012 appears to show the NPC Chasma Boreale rift, east of the central meridian. Christopher's image also appears to show a smaller entrant into the cap in the vicinity of Abalos Undae, near 75-80 degrees W longitude, just to the left (west) of Chasma Boreale.

<http://www.christone.net/astro/mars/index.html>

Evidence in this next image is a bit weak since it was taken at the wrong central meridian to get a clear view of the Chasma Boreale area but the very faint rift crossing the cap seems to be in the correct location. The MARCI image for Feb 22 shows some dust in Acidalius and up to the cap but it also shows Chasma Boreale clearly.

[http://www.damianpeach.com/mars1112/2012\\_02\\_22rgbseq.jpg](http://www.damianpeach.com/mars1112/2012_02_22rgbseq.jpg)

You should get a much better view with an image taken closer to a CM of 60-90 degrees or so.

About a year ago I was looking at several drawings that showed the Rima Tenuis. For the few drawings I checked there were no spacecraft orbiting Mars at the time so I didn't learn anything. There are probably more drawings of RT than what I found but I didn't put any more effort into the search since dust flows across the cap are the only possible explanation I am aware of.

**Gary ROSENBAUM** (Tucson, AZ)

●.....*Subject: Re: Mars 22 February*

*Received: Tue 06 Mar 2012 19:02 JST*

Hi Gary, A very informative and interesting email. It certainly raises some questions and possibilities.

I'd be interested to hear further from some of the veteran observers such as Masatsugu, Don, Richard etc who must have seen or imaged this feature.

Are there actually any photos/images from the last 20yrs which show the feature clearly? Don has been taking CCD images which would reveal the feature since the early 90s and HST has imagery going back to then. Is this rift just a visual feature or are there clear photos or images of it from past apparitions? When was it last reported by more than one observer?

○.....*Subject: Mars images (Feb 29th-Mar 1st 2012.)*

*Received: Sun 11 Mar 2012 22:25 JST*

Hi all,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120229/DPc29Feb12.jpg>

At last i had some very good seeing here on this night just a few days before close approach. Syrtis Major was nicely presented with Elysium orographic cloud very prominent. NPC outlier Olympia (Lemuria) is prominent detached from the cap. There is also some yellowish colour in the NPC area (possibly some dust?) The Boreo Syrtis feature rather reminds me of an Octopus!

[http://www.damianpeach.com/mars1112/2012\\_03\\_01rgbs.jpg](http://www.damianpeach.com/mars1112/2012_03_01rgbs.jpg)

Best Wishes

○.....*Subject: Mars images (March 1st -2nd 2012.)*

*Received: Tue 13 Mar 2012 01:09 JST*

Hi all, Seeing not nearly as good as the great seeing the night before though still a few decent periods. Brilliant Elysium orographic cloud.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120301/DPc01Mar12.jpg>

[http://www.damianpeach.com/mars1112/2012\\_03\\_01-02rgb.jpg](http://www.damianpeach.com/mars1112/2012_03_01-02rgb.jpg)

Best Wishes

**Damian PEACH** (Selsey, the UK)

●.....*Subject: Mars 2/6/2012*

*Received: Tue 06 Mar 2012 21:52 JST*

Good seeing this evening. Clouds over Elysium and within Hellas. Apparent dust event spilling off the NPC.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120306/SWk06Mar12.jpg>

**Sean WALKER** (S & T Imaging Editor)

●.....*Subject: Mars: March 6, 2012*

*Received: Wed 07 Mar 2012 14:49 JST*

I have attached my latest image of Mars March 6, 2012 at 6:31 UT to be posted. Thanks,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120306/FM106Mar12.jpg>

○.....*Subject: Mars: March 7, 2012*

*Received: Thu 08 Mar 2012 13:53 JST*

Hi - I have attached my latest image of Mars March 7, 2012 at 4:25 UT. Thanks,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120307/FM107Mar12.jpg>

○.....*Subject: Mars: March 12, 2012*

*Received: Tue 13 Mar 2012 14:20 JST*

Hi - I have attached my latest images of Mars March 12, 2012 to be posted.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120312/FM112Mar12.jpg>

Thanks,

**Frank J MELILLO** (Holtsville, NY)

●.....*Subject: Re: To Mars Observers*

*Received: Wed 07 Mar 2012 17:47 JST*

Hi Gentlemen, I sent you my Mars observation from March 03, 2012

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120303/FW103Mar12.jpg>

The seeing was average with some good seeing.

Uploaded 3 sets, I hope you can use them because some are not so great presentation.

○.....*Subject: Mars - march 02, 2012*

*Received: Fri 09 Mar 2012 10:26 JST*

Was getting behind my processing, so here is the set of March 02, 2012.

Average seeing with rain and heavy winds.

Just publish the set that you think is the best to use.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120302/FW102Mar12.jpg>

○.....*Subject: Mars - March 07, 2012 -*

*Received: Mon 12 Mar 2012 08:28 JST*

Bad conditions going on here now for a while hoping for better soon before

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120307/FW107Mar12.jpg>

**Freddy WILLEMS** (Waipahu, HI, the USA)

●.....*Subject: Mars 1-March-2012*

*Received: Wed 07 Mar 2012 19:02 JST*

Hi Guys here are a set of images from the 1st March, seeing was good The Filters were Astronomik LRGB with L being IR742/R. Best wishes

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120301/DTy01Mar12.jpg>

○.....*Subject: Mars 5-March-2012*

*Received: Mon 12 Mar 2012 23:15 JST*

Hi Guys, IR SG B , registax and jupos made a fair job of the sharp jellyfish seeing.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120305/DTy05Mar12.jpg>

Best wishes

○.....*Subject: Mars 12-March-2012*

*Received: Wed 14 Mar 2012 10:14:58 JST*

Hi Guys Here in the UK we had early excellent seeing for 41 deg alt. I had just long enough to capture one LRGB set before clouds ruined what could have been a legendary evening. Olympus and Tharsis calderas are shown as is Valles Marineris coming onto the disc .

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120312/DTy12Mar12.jpg>

Best wishes

○.....*Subject: Mars 11-March-2012*

*Received: Wed 14 Mar 2012 23:25 JST*

Hi Guys here is one image set from pretty good (for red anyway) seeing on the 11th. Its interesting to compare the appearance of Olympic Mons and the markings in its surrounding desert , with the image from the 12th. Has the 50 mile dia.caldera really appeared to have moved right with the planet rotation, indicating it just how high a 10mile mountain-top is?

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120311/DTy11Mar12.jpg>

best wishes

**Dave TYLER** (Bucks, the UK)

[www.david-tyler.com](http://www.david-tyler.com)

●.....*Subject: Re: Mars 22 February*

*Received: Wed 07 Mar 2012 22:11 JST*

Simple truth of the RT is that it was easily seen by many observers, but no one could define what it was; even though HST and space craft images shows nothing there except occasional dust streaks. IMHO, and this came about 30 years ago, is that the Rima Tenuis

does not exist and that what we have seen is dust streaks crossing from ~330 to ~140 degrees Areographic longitudes of the NPC. To me it is the only plausible explanation given the MGS imaging, HST and or other spaceship data. Because some historical figures, and not so historical observers, see something on Mars in a telescope means little or nothing in the world of science. I know that is hard to accept, but we have to move away from conjecture and deductive mythology from ancient times; my philosophy-101.

Sorry to bust any one's bubble; but this hobby of observing Mars must modernize and as my old friend, Chick Capen, use to say when we discovered something of substance, "this is real science." Here is one suggestion: using a good tool, WinJUPOS, to measure the NPC and all it's streaks or rifts one can easily see that the current images do not indicate RT on any of them.

**Jeff BEISH** (We The People)

●.....*Subject: mars observation of last 6th*

*Received: Fri 09 March 2012 3:49 JST*

Dear sir,

Some observations of Mars of last 6th performed with the 127mm cassegrain. In spite of the average sky transparency and poor seeing levels, please find the attached report.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120306/SMk06Mar12.jpg>

Be aware of the "L-R" file that gives the normal appearance at the eyepiece, butt inverted mentions.

The drawing with the W8 filter is the more detailed.

The mist on the Isidis-Regio Syrtis Major is covering from the violet to the red color these area, with less clearly in red light.

The clarity around the polar cap is notably greater than the cap itself in violet color.

Difficult to say more with the present condition of observations.

Have good receipt.

Faithfully

○.....*Subject: Mars and Venus observations of last 8th*

*Received: Sat 10 March 2012 6:38 JST*

Dear sir,

Here are my observations of mars and Venus performed on last 8th with the 127mm cassegrain still.

Regarding Mars: still the mist haze located on Isidis regio near Syrtis Major at the sun rise side. The brightness is higher in green light than in blue light. The south pole of mars is hazy.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120308/SMk08Mar12.jpg>

Regarding Venus: the caps appear larger than few days ago.

The structure is revealed very fine in green and yellow green lights. The banding system was captured with difficulty, even in violet light.

For your perusal.

Have good receipt of the present mail.

Faithfully

**Stanislas MAKSYMOWICZ** (Ecquevilly, FRANCE)

●.....*Subject: Re: Mars 22 February*

*Received: Fri 09 Mar 2012 13:47 JST*

All, Can we defer to a Martian? Oh yes, it's just rumor that Dan (Mr. Mars) Troiani was born on that Angry Red Planet. In fairness to his recovery of the RT (or is it a "recovery"?), let's backtrack to December 14, 1979 at 4:00am near the corner of Wrightwood and Monitor on Chicago's West Side.

He has his 10" f/6, not quite two years old and the only scope he had ever owned, sitting in front of his house and he sketches Mars at not quite 9" of arc (and at 283x) and records the NPC with a "Y"-shaped feature running down from longitude 333 degrees toward the pole (south up orientation). He next dutifully sends the sketch to Chick Capen at Lowell and gets a rather astonished reply from him.

Chick informs Dan that he had detected the RT, seen before in 1888, 1901, 1903 and 1918 and given its name by Antoniadi (note the rhythm with aphelic apparitions, as it was in '79-'80) and which had eluded him despite an over twenty year search sometimes with McDonald Observatory equipment. Even the Viking II Orbiter, poised above the cap one Martian year earlier, had not picked it up.

When I first met Chick (on the day, as it turned out,

Ronald Reagan beat Jimmy Carter) and informed him I had made Dan's mirror, I got an extra special tour of the Lowell 24 inch. Chick was impressed. I told him I knew that Dan was going to be an exceptional observer based on sketches of Mars done when his scope was just a couple of weeks old. That was also an aphelic apparition (apparently too late to find Rima) yet his artwork displayed details we thought were reserved only for perihelic events.

The next four aphelic apparitions RT would show up again and each time Dan had the first sketch of it. Dan is no stranger to picking out the difficult. On October 24, '79 (another four o'clock in the morning job) he caught what was described in a subsequent edition of the ALPO Journal of the first disturbance in the Jovian STZ since 1944 and Voyager II had passed the planet not that much earlier and had failed to notice it.

Speaking of Dan and spacecraft, his drawing in mid-July, '94 of Jupiter revealed the "D" impactor of the S/L-9 comet crash using just his 8" f/6, possibly the only other sighting besides an image from HST.

I think Chick would tend to side with him on this one, Jeff - but as always good to hear from you and that marvelous wisdom you impart!

Yes, I still think Dan's a Martian,

**Dan JOYCE** (Chicago, IL)

●.....*Subject: Mars 05 & 06 March 2012*  
*Received: Sat 10 Mar 2012 09:45 JST*

Dear Masatsugu, I had a couple of clear nights here around opposition. Attached are some images from the mornings of March 5th and 6th. Hellas is showing bright on both nights and haze is showing on both the morning and evening sides of Mars.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120305/WF105Mar12.jpg>

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120306/WF106Mar12.jpg>

I've been struggling with the weather here in Houston during this Mars apparition. It has been cloudy for the majority of nights and I have never had one of those nights with good to excellent seeing. I think back and now really appreciate the stretch of good weather we had here during the last good close approach of Mars back in 2005. I was really blessed

with good weather and good seeing during that apparition!

I hope things are going well for you over there!

Best wishes,

**Bill FLANAGAN** (Houston, TX)

●.....*Subject: Mars on 2012-03-09*  
*Received: Sun 11 Mar 2012 02:39 JST*

Hi. Yesterday, with some fog and mediocre seeing.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120309/CFm09Mar12.jpg>

Best regards

○.....*Subject: Mars 21012-03-12*  
*Received: Wed 14 Mar /2012 00:33:31 JST*

New Mars. Regular seeing and maximum transparency.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120312/CFm12Mar12.jpg>

Chao.

**Camilo FUMEGA UCHA** (Galicia, SPAIN)

●.....*Subject: Re: Mars 22 February*  
*Received: Sun 11 Mar 2012 03:59 JST*

Dear Masatsugu, I have read Jeff's words several times, and I even called him this morning and asked him about what he meant. We had a very pleasant and friendly chat, as I had expected that we would. Here is my understanding of what he wrote.

First he expressed his opinion that the Rima Tenuis is not (or at least not always) an illusion or a result of some amateur's mistake. He thinks that people have been seeing something real, which is most likely dust stretching across the polar cap. Jeff agrees that the Rima Tenuis does not exist as a topographical feature like a valley. ( I would have guessed that, instead of a depression, the RT would have been a strip of higher ground, where presumably the white would have sublimed earlier.) I agree heartily with Jeff that people have been seeing something real. The interpretation of the observation ( as a topographical feature) has been wrong. Jeff thinks people are observing dust. I do too.

Jeff also wrote the following: "Because some historical figures...little or nothing in the world of science." I think he was saying that telescopic observation cannot answer some questions. Perhaps he was also thinking of the low regard that some profession-



als have for amateurs, especially Mars observers. Jeff did not mean any disrespect for any observers, and he was not saying that we should not observe. He was saying that there are realistic limits to what we can see. It is also the case that, even if we see something significant, we might not be able to explain it or to get the professional community to give us the credit we deserve.

Back in the '80s I was one of the most active Jupiter observers, and there was little professional interest in Jupiter. When Shoemaker/Levy 9 rammed into Jupiter there was a lot of professional interest, and very few people cared what I had observed. I just had to accept that a big fish in small pond could be just bait when thrown in the ocean.

Jeff is a good guy who means us well. He is a friend. If I did not communicate clearly, please let me know and give me a chance to try again.

I will try to write more later.

Sincerely,

P.S. Perhaps you will like the following from my A Brief Flurry of Momentary Stays:

#### Daddy Cried for the Moon

"When Daddy was a toddler," Granddaddy said,  
"He cried for the Moon, and couldn't be comforted."

"I want it - I need it," he said between tears.

"I know I will love it for many long years.

Please give it to me, give it right now.

I want it - must have it, I do not care how.

I want it to lie here beside me in bed,

Pouring its good dreams into my head."

Granddaddy said, "Neither late nor soon,  
Will ever you have your very own Moon."

**Sam WHITBY** (Prince George, VA)

●.....*Subject: Mars 20120308 22:18 GMT*

*Received: Sun 11 Mar 2012 07:07 JST*

Hello, I send to you a new picture that I obtained on the night of 8th March 2012 at 22:18 GMT

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120308/FFn08Mar12.jpg>

Telescope Meade LX 90 D=203 mm F.25

DSI III Pro Camera. Red-Blue Filters

Yours sincerely

○.....*Subject: Mars 20120312 22:57 GMT*

*Received: Wed 14 Mar 2012 17:09 JST*

Hello, I send to you a new picture that I obtained on the night of 12th march 2012 at 22:57 GMT

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120312/FFn12Mar12.jpg>

A thin equatorial belt of cloud and orographic clouds on volcanoes; Yours sincerely

Telescope Meade LX 90 D=203 mm F.25

DSI III Pro Camera. Red-Blue Filters

**Francisco José FERNÁNDEZ GOMÉZ**

(Ourense, SPAIN)

●.....*Subject: Mars 9 march*

*Received: Sun 11 Mar 2012 06:47 JST*

Hi

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120309/SGh09Mar12.jpg>

Mars on 9th March with very bad condition.

All the Best

**Sadegh GHOMIZADEH** (Tehran, IRAN)

●.....*Subject: Mars last night*

*Received: Sun 11 Mar 2012 14:21 JST*

Hello everyone,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120310/SBd10Mar12.jpg>

The sky finally cleared over Melbourne after almost two weeks of unseasonable weather but the seeing last night was less than mediocre. Some more clear sky is predicted but the jet stream predictions are not looking good.

I had to combine three R-band AVIs to produce an acceptable image. Regards,

○.....*Subject: Mars last night*

*Received: Tue 13 Mar 2012 13:06:54 JST*

Hi everyone, I nearly gave up last night but in the end the seeing improved to almost mediocre for a few minutes and I was able to capture the attached image.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120312/SBd12Mar12.jpg>

Regards,

**Stefan BUDA** (Melbourne, AUSTRALIA)

●.....*Subject: Mars Sketch 2012.03.11*

*Received: Mon 12 Mar 2012 03:13 JST*

Sirs, Please find attached my recent drawing of Mars.

It has been 3 week since my last sketch but the jet stream has been the visitor who would not leave. In the meantime, the NPC has almost disappeared!

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120311/MRs11Mar12.jpg>

Notes are with the sketch and in the body of this email. 35cm SCT f/11 @ 489x & 340x Filters: W21, 23A, 56, 80A, & IL Seeing: 6-7/10 P Transparency: 5/6 Altitude: 61°

Notes: North Polar Cap (NPC) small and obscured by clouds. Utopia dusky on Central Meridian (CM).

Nodus Alcyonius and Hyblaeus Extension preceding CM dusky and partly obscured by clouds respectively.

Syrtis Major dark following the CM. M Tyrrhenum dark preceding the CM. Tritonis Sinus partly obscured by clouds on preceding limb. Bright cloud over Elysium on preceding limb. Bright arc on all limbs in green, blue, and integrated light (IL). No bright areas with W23A filter. Best regards,

**Michael ROSOLINA**

(Twin Sugars Observatory, Friars Hill, WV)

●.....*Subject: Mars 10 March*

*Received: Mon 12 Mar 2012 13:20 JST*

Hi All, I have attached some RGB, NIR and UV Mars images from 10 March.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120310/DPk10Mar12.jpg>

An equatorial cloud band (ECB) is prominent in UV and blue. Best,

○.....*Subject: Re: Mars 10 March*

*Received: Tue 13 Mar 2012 02:26 JST*

Dear Masatsugu,

Yes, the 04:05 image should read "UV Astrodon Johnson-Cousins Peak=365nm BWHM=60nm."

Thank you for picking this error up. I will send out a correction. I guess I had another "senior moment!"

Best,

○.....*Subject: Error on 10 March Mars image*

*Received: Tue 13 Mar 2012 03:06 JST*

Masatsugu Minami has alertly pointed out that the 04:05 Mars image was not shot in NIR but rather in

ultraviolet. The label should read:

"UV Astrodon Johnson-Cousins Peak=365nm BWHM=60nm."

Just another "senior moment!"

**DON PARKER** (Coral Gables, FL)

●.....*Subject: Mars 2012/03/11*

*Received: Mon 12 Mar 2012 20:08 JST*

Hello, Here are my pictures of Mars taken last night under a foggy sky and with a seeing rather average.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120311/JPp11Mar12.jpg>

Regards

○.....*Subject: Mars 2012/03/13*

*Received: Tue 13 Mar 2012 23:01 JST*

Hello, Here is Mars on 2012/03/13.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120313/JPp13Mar12.jpg>

The transparency was poor and the wind was sometimes annoying. Important humidity. T = +7°C

Regards

○.....*Sujet: Mars le 13 Mars P.M.*

*Reçu: mercredi 14 mars 2012 20:24 JST*

Bonjour à tous,

Avant l'arrivée du vent, j'ai pu prendre hier soir quelques images de la planète rouge.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120313/JPp13Mar12n.jpg>

Après pas mal de travail, j'ai pu extraire une image exploitable mais de qualité moindre, de la couche bleue très perturbée en raison du vent. C'est dommage car les couches rouge et verte étaient correctes.

**Jean-Jacques POUPEAU** (Essonne, FRANCE)

●.....*Subject: Re: Mars images (March 1st -2nd 2012.)*

*Received: Tue 13 Mar 2012 06:59 JST*

Has anyone taken a very recent image of Venus and Jupiter as they appear to the unaided eye, maybe with some horizon, etc. Maybe an image within the past 24 hours? JPL has had a request for one (from a US network TV) .

Jane - We would need your permission, and of course you'd get a credit. We do need it asap. Naturally. Thanks, and thanks for such fabulous images!

**Jane HOUSTON JONES**

(Senior Outreach Specialist, Cassini Program)

<http://solarsystem.nasa.gov/news/whatsup-archive.cfm>  
 Youtube:  
<http://www.youtube.com/profile?user=JPLnews>

●.....*Subject: Mars 2012/03/12-Kumamori*

*Received: Tue 13 Mar 2012 07:42 JST*

M MIAMI-sama, The opposition time passed while the weather remained dismal. Today also it snowed a bit at Sakai-Osaka. From evening a lull appeared but still rather cloudy:

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120312/Km12Mar12.jpg>

Best wishes,

○.....*Subject: Mars 2012/03/13-Kumamori*

*Received: Wed 14 Mar 2012 07:31 JST*

Masatsugu MINAMI-sama: The sky was more stable than yesterday, but at the Mars time cloud floated so that the images look not satisfactory.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120313/Km13Mar12.jpg>

Best wishes

**Teruaki KUMAMORI** (Sakai-Osaka, JAPAN)

●.....*Subject: Mars*

*Received: Tue 13 Mar 2012 08:47 JST*

Seems like it has been a while since I was able to get out and do any imaging. Last night seeing was good and luckily I had not forgotten how to use my equipment. Here's Mars FYI.

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120312/JPh12Mar12.jpg>

best,

**Jim PHILLIPS** (Charleston, SC)

●.....*Subject: Mars images 2012-03-09, 23:55:56 UT*

*Received: Tue 13 Mar 2012 13:53 JST*

Hi all, Is this brightness of the clouds an opposition effect? Clouds much brighter than the ice at northpole?

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120309/SKw09Mar12.png>

My conditions have been extreme suboptimal. I had to capture the images through a thin cloudlayer. :-(...  
 Cheers

**Silvia KOWOLLIK** (Ludwigsburg, GERMANY)

●.....*Subject: Mars 13th March 2012*

*Received: Wednesday, March 14, 2012 7:44 AM*

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120313/AWs13Mar12.jpg>

Hi everyone, this is the first image I've been able to take for weeks due to bad weather, the seeing was still fairly bad for this image, but using IR instead of red helped save it. 90s per channel

<http://www.acquerra.com.au/astro/gallery/mars/20120313-124138/large.jpg>

regards,

○.....*Subject: Mars 14th March 2012*

*Received: Thu 15 March 2012 8:07 AM*

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120314/AWs14Mar12.jpg>

No, it's not a type or re-send of yesterdays image, this is a new image from last night (March 14) in very similar seeing to the previous. Image looks much the same :-)) 90 seconds per channel, PGR Grasshopper Express camera, IR - G - B filters.

<http://www.acquerra.com.au/astro/gallery/mars/20120314-125314/large.jpg>

cheers,

**Anthony WESLEY** (NSW, AUSTRALIA)

●.....*Subject: Mars Observing Report*

*Received: Thu 15 Mar 2012 01:12 JST*

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120314/JAl14Mar12.jpg>

Greetings, Attached is my latest Mars observing report. The observation was made under mediocre seeing and cut short by clouds while observing with blue filters. I never got to use the green. I didn't record some fleeting, uncertain glimpses of spots on the disk in blue light because I was much too unsure of what I saw in the poor seeing as the clouds rolled in. Regards,

**Jay ALBERT** (Lake Worth, FL)

○.....*Subject: Mars 13th March 2012*

*Received: Thu 15 March 2012 21:04 JST*

Dear Minami,

<http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120313/JCt13Mar12.jpg>

Here is a new image of Mars taken on 13th March. The image shows the Tharsis region with orographic clouds on Olympus Mons and also on the other Tharsis Volcanos. Best regards,

**Jaume CASTELLÀ** (Badalona, SPAIN)

☆☆☆

# *Ephemeris for the Observations of the 2011/12 Mars. X*

*May 2012*

**Masami MURAKAMI**

As a sequel to the preceding list of the Ephemeris for the physical observations of Mars, we here list up the necessary elements of the Ephemeris for the period from 26 April 2012 to 5 June 2012: The data are listed for every day at 00:00 GMT (not TDT). The symbols  $\omega$  and  $\phi$  denote the Longitude and Latitude of the sub-Earth point respectively. The symbols  $\lambda$ ,  $\delta$  and  $\iota$  stand for the Areocentric Longitude of the

Sun, the Apparent Diameter and the Phase Angle respectively. We also add the column of the Position Angle  $\Pi$  of the axis rotation, measured eastwards from the north point: This is useful to determine the north pole direction from the  $p \leftarrow$ . The Apparent Declination of the planet is also given at the final column (denoted  $D$ ). The data here are basically based on *The Astronomical Almanac for the Year 2012*.

Date (00:00GMT)	$\omega$	$\phi$	$\lambda$	$\delta$	$\iota$	$\Pi$	$D$
26 April 2012	132.00°W	23.2°N	101.94°Ls	10.35"	32.7°	12.6°	+11°58'
27 April 2012	122.73°W	23.3°N	102.39°Ls	10.26"	33.0°	12.7°	+11°53'
28 April 2012	113.45°W	23.4°N	102.84°Ls	10.18"	33.3°	12.8°	+11°47'
29 April 2012	104.16°W	23.4°N	103.29°Ls	10.10"	33.6°	12.9°	+11°42'
30 April 2012	094.86°W	23.5°N	103.74°Ls	10.01"	33.8°	13.0°	+11°36'
01 May 2012	085.55°W	23.6°N	104.19°Ls	9.93"	34.1°	13.1°	+11°30'
02 May 2012	076.23°W	23.6°N	104.64°Ls	9.85"	34.4°	13.2°	+11°24'
03 May 2012	066.90°W	23.7°N	105.10°Ls	9.78"	34.6°	13.3°	+11°17'
04 May 2012	057.55°W	23.8°N	105.55°Ls	9.70"	34.9°	13.4°	+11°10'
05 May 2012	048.20°W	23.8°N	106.00°Ls	9.62"	35.1°	13.5°	+11°04'
06 May 2012	038.84°W	23.9°N	106.45°Ls	9.55"	35.3°	13.7°	+10°57'
07 May 2012	029.47°W	23.9°N	106.91°Ls	9.47"	35.6°	13.8°	+10°50'
08 May 2012	020.09°W	24.0°N	107.36°Ls	9.40"	35.8°	14.0°	+10°42'
09 May 2012	010.70°W	24.1°N	107.81°Ls	9.32"	36.0°	14.1°	+10°35'
10 May 2012	001.30°W	24.2°N	108.27°Ls	9.25"	36.2°	14.3°	+10°27'
11 May 2012	351.90°W	24.2°N	108.72°Ls	9.18"	36.4°	14.4°	+10°19'
12 May 2012	342.48°W	24.3°N	109.18°Ls	9.11"	36.5°	14.6°	+10°11'
13 May 2012	333.06°W	24.4°N	109.63°Ls	9.04"	36.7°	14.7°	+10°03'
14 May 2012	323.62°W	24.4°N	110.09°Ls	8.97"	36.9°	14.9°	+09°55'
15 May 2012	314.18°W	24.5°N	110.55°Ls	8.91"	37.0°	15.1°	+09°46'
16 May 2012	304.73°W	24.6°N	111.00°Ls	8.84"	37.2°	15.3°	+09°38'
17 May 2012	295.28°W	24.6°N	111.46°Ls	8.77"	37.3°	15.5°	+09°29'
18 May 2012	285.81°W	24.7°N	111.92°Ls	8.71"	37.5°	15.6°	+09°20'
19 May 2012	276.34°W	24.8°N	112.38°Ls	8.64"	37.6°	15.8°	+09°11'
20 May 2012	266.86°W	24.8°N	112.84°Ls	8.58"	37.8°	16.0°	+09°02'

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21	May	2012	257.37°W	24.9°N	113.30°Ls	8.51"	37.9°	16.2°	+08°53'
22	May	2012	247.87°W	25.0°N	113.76°Ls	8.45"	38.0°	16.4°	+08°43'
23	May	2012	238.37°W	25.0°N	114.22°Ls	8.39"	38.1°	16.6°	+08°34'
24	May	2012	228.86°W	25.1°N	114.68°Ls	8.33"	38.2°	16.8°	+08°24'
25	May	2012	219.34°W	25.2°N	115.14°Ls	8.27"	38.3°	17.1°	+08°14'
26	May	2012	209.82°W	25.2°N	115.60Ls	8.22"	38.4°	17.3°	+08°04'
27	May	2012	200.29°W	25.3°N	116.07Ls	8.16"	38.5°	17.5°	+07°54'
28	May	2012	190.75°W	25.3°N	116.53Ls	8.11"	38.5°	17.7°	+07°44'
29	May	2012	181.21°W	25.4°N	116.99Ls	8.05"	38.6°	17.9°	+07°33'
30	May	2012	171.66°W	25.5°N	117.46Ls	8.00"	38.7°	18.2°	+07°23'
31	May	2012	162.10°W	25.5°N	117.93Ls	7.94"	38.8°	18.4°	+07°12'
01	June	2012	152.54°W	25.6°N	118.39Ls	7.89"	38.8°	18.6°	+07°02'
02	June	2012	142.97°W	25.6°N	118.86Ls	7.83"	38.9°	18.9°	+06°51'
03	June	2012	133.40°W	25.7°N	119.33Ls	7.78"	39.0°	19.1°	+06°40'
04	June	2012	123.82°W	25.7°N	119.80Ls	7.73"	39.0°	19.3°	+06°29'
05	June	2012	114.23°W	25.8°N	120.26Ls	7.68"	39.1°	19.6°	+06°18' - - -

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## ***International Society of the Mars Observers (ISMO)***

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and Tadashi ASADA, Reiichi KONNAI, Masatsugu MINAMI

***Bulletin:*** Kasei-Tsushin CMO (<http://www.mars.dti.ne.jp/~cmo/ISMO.html>)

**CMO #396/ ISMO #22 (10 April 2012)**

***Editorial Board:*** Tadashi ASADA, Masatsugu MINAMI, Masami MURAKAMI,  
Takashi NAKAJIMA and Akinori NISHITA



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**NOTICES:** 1) Since Masatsugu MINAMI has become ill from the end of March (suffering from a kind of Parkinson Syndrome), he cannot be attentive to details of the editorial CMO/ISMO, and hence we asked Reiichi KONNAI to join the domestic Advisory Board staff. We believe he will well help us. If anyone who is not well known who he is, it is advisable to recall his prominent ability shown in 1971 and 1973.

2) We shall continue to publish the CMO/ISMO in a PDF version every month and hold the Gallery corner et al but we shall cease to publish the paper versions of the CMO henceforward, although some important issues may appear sometimes.

(CMO Fukui)

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