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### **OBSERVATIONS**

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# ISMO "Flash" Back on the Bright Olympus Mons Observed in November 2005

By

### **Christophe PELLIER**

On the days of the 2005 perihelic opposition, that took place in November  $6^{th}$  of that year at  $\lambda$ =320°Ls, the European amateurs observed the Tharsis volcanoes at a very bright state. Especially, Olympus Mons was outstandingly bright. The author observed the volcano as a bright spot easily at the eyepiece of his 210 mm Takahashi mewlon on the night from  $5^{th}$  to  $6^{th}$  November. This was quite a noticeable experience; Olympus is by no mean an easy feature to detect visually



with a small telescope, unless its appearance is enhanced by any particular circumstance (shadowy, cloudy...).

CCD Images coming from Europe depicted well the phenomenon. Images taken

on nov.6th from CMO observers are presented on figure 1. It was so remarkable that questions soon arose around it. As often, I had taken images on the whole CCD spectrum from IR light to UV, and what stroke me is that the brightness was obvious in all bands, including infrared. Of course, brightness over a martian volcanoe could be interpreted as a classic cloudy state. However, the season was much too early for this - OM was in its mid-winter season, when there is no water vapour available to feed its orographic afternoon cloud. And, a cloud would have disappeared in R and IR light. During the night of nov. 6th to 7th, DPc also took a high-res view when we can distinguish the

brighter dome of the caldera from the less bright larger aureole (see figure 2).

So what is white, and bright in



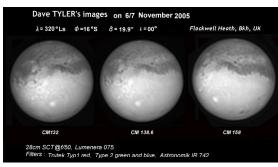
every color? Usually, on Mars only ice has

these properties (whether water or carbon dioxid). A french professional wrote in a Yahoo group that the summit of the Mons must have been frosted (by CO<sub>2</sub> snow), and this was also the conclusion that I retained for my own 2005 SAF report. For any reason, CO<sub>2</sub> looked to have condensate on the mountain, although I had never heard or read anything in that sense before.

The OAA Mars section Director, Masatsugu Minami, was saying that this was a mere "opposition effect": when our two planets are aligned at opposition, Mars has a tendency to shine brighter, and on some parts, to reflect sunlight in a way that make them really shiny. This hypotesis, however, sounded too scanty to me as it was so bright, much more than it was in the opposition in 2003, when it was dark in blue light.

Yet the answer to the contradiction of the aspect between 2003 and 2005 had been given by M.Minami no later that in the 25th april 2006 issue of the CMO (n°318), in "CMO 2005 notice #03": "note that Olympus Mons is located 28°N, while the slope of the flank has an angle of 20 to 30°, and so the area looks as if located more southward near the angle (Ds + DE)/2. At opposition the surface is as if in a full-moon state, and the high albedo areas increased their brightness by some dozens per cent and so this difference of angles enhances the particular areas (originally the "opposition effect" was used to denote the brightening of the high albedo areas seen through the shorter wavelengths. Nowadays, the presence of the blue haze is regarded as dubious.) In 2003, (Ds + DE)/2 was more southward about by  $6^{\circ}$ , and hence it was possible that the Olympus-Mons aureole was less bright in 2003 than this year if the airborne dust condition was the same at opposition".

As time went by the frost hypotesis sounded more and more strange to me. This CMO notice convinced me of that the opposition effect was the right one, and that the great brightness was due to a particularly favourable angle of view. Moreover, a more careful study of the set of R images taken by



Dave
Tyler
in
figure
3 reveals
that

the brightness also was varying by the martian hour, and was more intense in midto late afternoon as the flank of Olympus was turning more and more toward Earth.

Finally we present here on figure 4 an image taken by the MGS on the same day (2005/11/06) that definitely proves that of



course no frost was there at the time; and the orbiter does not know of any opposition effect.  $\Box$ 

#### - CMO/ISMO 2011/12 Mars Report #09 -

#### 2011/2012 Mars Observations in the Second Half of March 2012

This is a belated report of the Mars observations made in the latter half of March 2012. The planet was at Leo and was approaching  $\alpha$  Leo. The Martian season  $\lambda$  began from 084°Ls and proceeded finally to  $\lambda$ =091°Ls, just after the northern Summer Solstice. The angular diameter  $\delta$  was from 13.7" to 12.6". The tilt kept  $\phi$ =22°N and the remnant of the npc always faced to us. The phase angle  $\dot{\epsilon}$  rapidly changed from 10° to 20°, and the morning phase increased. The morning belt of the mist was rather conspicuous and the poking-out calderas were often observed. It was notable at dawn there were observed several protrusions from the terminator due to the spontaneous CME and confirmed our observations in November 2003. This kind of protrusions was also observed also in April, and hinted some relations with the Solar activity and the remnant of the magnetic fields on Mars.

In Japan the weather remained dismal because of the southern current of the cold waves, and the Cherry blossoms rapidly disappeared. The number of observers was 32 from abroad while just 6 from the domestic members.

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

1 Drawing (31 March 2012) 400×28cm SCT

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

13 Sets of *RGB* + 12 *IR* + 2 *UV* + 12 *LRGB Colour* + 12 *L* Images (16, 21,~25, 28, 30, 31 March 2012)

36cm SCT @f/36, 55 with a DMK21AU04

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

2 Colour Images (24, 25 March 2012) 25cm speculum @f/27 with a ToUcam Pro II

**BOSMAN**, **Richard** (*RBs*) Enschede, the Nederlands

1 Set of RGB Images (27 March 2010) 28cm SCT with a Basler acA640-100gm

BUDA, Stefan (SBd) Melbourne, Australia

2 Colour images (17, 28 March 2012) 40cm Dall-Kirkham with a DMK21AU04

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

1 Set of RGB + 2 IR Images (23, 31 March 2012) 32cm speculum with a Basler acA640-100gm

FERNÁNDEZ GÓMEZ, Francisco José (FFn) Ourense, Spain

2 Colour images (19, 22 March 2012) 20cm SCT @f/25 with a DSI III Pro

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

1 Set of LRGB Images (25 March 2012) 36cm SCT @f/27 with a Flea3

FUMEGA UCHA, Camilo (CFm) Galicia, Spain

2 Colour Images (27, 29 March 2012) 31cm speculum @f/25, 30 with a DMK21

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

6 Colour Images (19, 21, 23, 25, 26, 29 March 2012) (28cm SCT with a DMK21AU04.AS)

**GRAFTON, Edward A (***EGf***)** Houston, TX, the USA

1 Colour Image (25 March 2012) 36cm SCT @f/39 with an ST402

HILL, Richard (RHl) Tucson, AZ, USA

3 Colour Images (22, 28 March 2012) 36cm SCT @f/22 with a DBK21AU04

KIDD, Simon D (SKd) Welwyn, Herts, the UK

3 Colour Images (20, 23, 24 March 2012) 36cm SCT (with a DBK21AF04.AS)

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

16 Drawings (16, 20,~22, 24,~27 March 2012) 340, 400, 480×20cm speculum

### KONNAÏ Reiichi (Kn) Ishikawa, Fukushima, Japan

5 Drawings (21, 28, 30 March 2012) 600×30cm SCT

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

6 LRGB Colour + 3 B Images (21, 24, 27 March 2012)

28cm SCT @f/33, 60 with a DMK21AF04/DFK21AF04

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

4 Sets of RGB + 1 IR Images (20, 22, 26, 26n March 2012) 20cm speculum with a DMK31AF03.AS

#### **LAWRENCE, Pete** (*PLw*) Selsey, WS, the UK

1 Colour Image (24 March 2012) 36cm SCT @f/67 (with a SKYnyx2-0M)

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

8 Colour Images (18~20, 23,~25, 27, 29 March 2012)

22cm speculum @f/44 with a DMK21AU618.AS

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

9 Sets of Drawings (16<sup>#1</sup>, 19<sup>#1</sup>, 21,~23<sup>#2</sup>, 25,~27<sup>#3</sup>, 28<sup>#4</sup> March 2012) 160×~330×20cm Cassegrain, 215×,230×13cm Cassegrain<sup>#1</sup>, 290×30cm Cassegrain<sup>#2</sup>, 250×10cm Refractor<sup>#3</sup>, 250×15cm Refractor<sup>#4</sup>

#### **MELILLO, Frank J (FMl)** Holtsville, NY, the USA

14 Colour Images (18, 19, 23, 24, 28, 29 March 2012) 25cm SCT with a ToUcam pro II

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

24 Drawings (19, 21, 27 March 2012) 400, 550×20cm Goto ED refractor\*

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

9 Sets of LRGB Images (17,~ 20, 22,~24, 28, 30 March 2010) 31cm SCT with a DMK21AF04

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

1 Sets of LRGB + 1 IR Images (26 March 2012) 36cm SCT @f/22 with a SKYnyx 2-0M

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

7 Sets of *RGB* + 7 *LRGB Colour* + 7 *L* Images (19, 21, 27, 31 March 2012)

25cm speculum with a Flea3

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

5 Drawings (27 March 2012) 320×20cm F/8 speculum

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

9 Set of RGB + 3 UV Images (17, 21, 24, 27, 30 March 2012)

36cm SCT @f/42 with a DMK21AU618.AS

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

6 Sets of *RGB* + 6 *Colour* + 2 *R* + 3 *B* Images (18, 19, 21, 23, ~30 March 2012) (36cm SCT with a SKYnyx 2-0M)

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

10 Sets of *RGB* + 1 *B* + 9 *IR* + 1 *Violet* + 3 *UV*+ 4 *LRGB Colour* Images (19/20, 24, 28,~31 March 2012) 25cm speculum @f/32 with a PLA-Mx

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

1 Colour + 1 B Images (21 March 2012) 20cm Refractor (with a SKYnyx cam)

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

2 Sets of RGB + 2 IR Images (19, 31 March 2012) 35cm Cassegrain @f/29 with a SKYnyx 2-0

#### **SHARP, Ian** (*ISp*) Ham, West Sussex, the UK

6 Colour Images (18, 23, 24, 27,~29 March 2012) 28cm SCT with a Flea3

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

2 Colour Drawings (27 March 2012) 310×30cm Dobsonian

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

3 Sets of *LRGB* + 6 *Colour* + 4 *R* + 2 *L* Images (18, 24, 26, 29, 30 March 2012) 36cm SCT with a Flea3

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

7 Sets of *RGB* Images (16<sup>#</sup>, 19, 22, 23, 25,~27 March 2012)
22cm speculum @f/27 with a DBK21AU618 & ToUcam pro III<sup>#</sup>

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

2 Colour Images (19, 20 March 2012) 41cm speculum with a Grasshopper Express

### WILLEMS, Freddy (FWl) Waipahu, Hawaii, the USA

10 Sets of *RGB* + 7 *Colour* + 13 *IR* Images (19,~21, 29 March 2012) 36cm SCT with a DMK21AU04.AS

We further received as follows:

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

2 Sets of RGB + 2 IR Images (7, 12 March 2012) 36cm SCT @f/28 with a DMKAU618.AS

In the second half of March, there have been several important phenomena: We just pick out a bit of them, but they are fully interesting. First of all, Don PARKER (DPk) and Jim PHILLIPS (JPh) captured a protrusion on 21 March ( $\lambda$ =086°Ls) from the morning terminator, perhaps suggested by the observation of Wayne JAESCHKE (West Chester, PA)'s observation on 20 March. Especially DPk's image set is outstanding. JPh's set of images in B is also interesting: They suggest the protrusion is conspicuous especially in purple colour.

This phenomenon must have been caused by the arrival of the CME on the Sun which occurred around 18 March. The CME's expansion is quite rapid but if it encounters with the magnetic mushrooms on Mars the obstruct effects work for a while and the protrusion can be seen rather longer. Thus *DPk*'s case fortunately was shot in the appropriate time.

Note that this phenomenon was already known to us in 2003. As was reported in

http://www.hida.kyoto-u.ac.jp/~cmo/cmomn2/283OAA/index.htm

the similar phenomenon was noticed by naked eye of one of us (*Mn*) on 4 November 2003, and again on 7 November 2003. According to *Mn*'s impression *DPk*'s image was realistic. It was also independently shot by Yukio MORITA (*Mo*) on 7 November 2003 and afterword on 8 November Isao MIYAZAKI (*My*) ccd imaged the protrusion. Apparently at that time the Sun was furiously active and hence we were convinced that this phenomenon must have been caused by the Solar activity as CME or Flare activity. This was long forgotten by many but this time the several ccd images have shown them up. (Just a forerunner Bill FLANAGAN (*WFl*) observed the projection similar Wayne's one on 25 April - to be reported next month). So these kind phenomena are independent of the Martian season, and rather we should be attentive to any local activity on the Sun. We also note in 2003 the observations were tried to long, but this time one day or two day observations have been put forward.

Anyway it is important to pursue the *remaining effect* of the passing of the CME on Mars. What on earth is the remnant after the rapid passing of the CME?

 $^{\circ}$  ······ As the phenomena which occurred at this aphelical opposition, several were reported but one of them was the clear appearance of the Tharsis Montes as a darker spots which were seen trough (or poked out from) the white mist: There are many observations but outstanding clear images were those given by PEACH (*DPc*) for example taken on 19 March ( $\lambda$ =085°Ls) at  $\omega$ =069°W or on 24 March ( $\lambda$ =088°Ls) at  $\omega$ =044°W: We shall stress that in *DPc* timing looks very nice.

The street of the first of the activity of Efrain MORALES RIVERA.

(M MINAMI & M MURAKAMI)

Ser3-0274 CMO No. 397

### Letters to the Editor

#### • ···· Subject: Drawings of Mars Received: Fri 16 Mar 2012 01:09 JST

Dear Dr. Minami, Attached here are my latest drawings of Mars. Seeing was very poor, so I concentrated on the colors of the lighter area on the Martian images.

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120315/Kn15Mar12.jpg$ 

Good Seeings/Health!

○ ····Subject: 10000 hits

Received: Mon 19 Mar 2012 00:56:45 JST

Dear Dr. Minami and all, Congratulations on CMO/ISMO's hitting the 10000th access!...it must have been at about 13:50 GMT on 18 March 2012, which I missed as the Access Counter leaped over the memorable figure from 9999 to 10001(see the attached montage)! Anyway I will raise a glass of my favorite sake Minowa-Mon. Cheers!



Best Wishes

# O·····Subject: Unusual cloud on the dawn terminator Received: Thu 22 Mar 2012 12:39 JST

Dear all, The lighter protrusion on the dawn terminator at high southern latitude is very interesting. In my LtE (in Japanese) on 14 Mar in the CMO Japanese version I have mentioned the possible dawn terminator protrusion on MDc's image on 12 Mar. 2012 23:07GMT  $\omega$ =154°W, seems explicit in RGB and in its each component, as well as in IR. It is delicate on CFm's image taken at 13 minutes before MDc's. Possible similar protrusions, I think, can be seen also on JPp's image on 14 Mar. 23:28GMT  $\omega$ =142°W, and EMr's one on 19 Mar. 02:31GMT  $\omega$ =151°W.

Best Regards,

O ····· Subject: Mars drawings Received: Thu 22 Mar 2012 16:52 JST

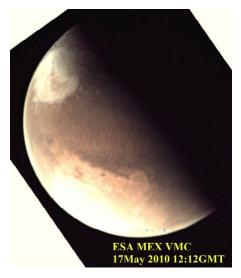
Dear Dr. Minami, I am attaching my latest drawings of the red planet's "Exciting (or Imagenic) Side".

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120321/Kn21Mar12.jpg

Good Seeing/Health!

### O ····· Subject: Hellas in the Martian last year Received: Tue 27 Mar 2012 16:54 JST

Dear Dr. Minami, all, I am attaching an interesting ESA/MEX/VMC image showing Hellas in the Martian last year, season of which almost the same as now. For the terrestrial Mars observers it was in the later last apparition when the planet had been going far to be smaller. You can find many informative images on the released VMC images including the ones showing the region around "Wayne's Cloud" in a similar season.



Good Seeing with Excellent Scopes!

○ ···· Subject: Mars drawings

#### Received: Thu 29 Mar 2012 00:45 JST

Dear Dr. Minami, Attached here are my latest drawings of Mars. Seeing was extremely poor, extra-focal Martian image showed rapidly streaming streaky cold air current above!

 $http://www.hida.kyoto-u.ac.jp/\sim\!cmo/cmons/2011/120328/Kn28Mar12.jpg$ 

#### Good Seeing/Health!

O·····Subject: Drawing on the Martian southern winter solstice Received: 31 Mar 2012 00:52 JST

Dear Dr. Minami, Please find attached my latest drawing of Mars. I do hope the recent terrible seeing improves next week! http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120330/Kn30Mar12.jpg

Clear Skies,

#### Reiichi KONNAÏ (Fukushima, JAPAN)

#### • ····· Subject: Mars sketch 14/03/12 Received: Fri 16 Mar 2012 01:48 JST

Hi, here is my sketch from 14 March

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120314/KSm14Mar12.jpg

instrument: 12" f/5 dobsonian

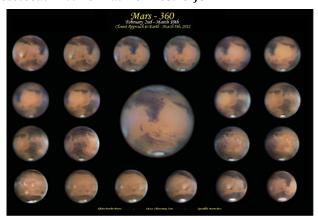
magnification: 214× seeing: excellent

filters: #23A red + apodising mask + light blue + green

Greetings,

Kris SMET (Bornem, BELGIUM)

### • ····· Subject: Mars - 360 deg. Feb. 2nd - March 10th Received: Fri 16 Mar 2012 03:28 JST



Hi Mr. Minami, I am submitting this Image.

Mars - 360deg. Here is a composition of images from Feb. 2nd to March 10th (when possible) of slightly over a month and showing a full rotation of the planet Mars. Image from feb.2nd and so on is slightly smaller due to distance and approaching opposition on March 3rd (Sun) and March 5th (Earth) closest to us.

Equipment: LX200ACF 12 in. OTA, F30, CGE mount,

PGR Flea3 Ccd, TeleVue 3x barlows,

Astronomik L,Ir, RGB filter set.

#### O·····Subject: Mars - March 13th, 02:57ut Received: Sat 17 Mar 2012 00:39 JST

Hi Mr. Minami and Mr. MURAKAMI, Here is a session from March 13th, 02:57ut under not so good conditions, Clear Skies.

 $http://www.hida.kyoto-u.ac.jp/\sim\!cmo/cmons/2011/120313/EMr13Mar12.jpg$ 

#### O·····Subject: Mars - March 14th, 03:07ut Received: Sat 17 Mar 2012 04:27 JST

Hi Mr. Minami and Mr. Murakami, Here is a session from march 14th, 03:07ut under not so good conditions, Clear Skies.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120314/EMr14Mar12.jpg

#### O ····· Subject: Mars - March 17th, 02:42ut Received: Sun 18 Mar 2012 03:27 JST

Hi Mr. Minami and Mr. Murakami, Here is my latest session from the 17th of march, Weather is still below average but enough thru the gaps for some capturing, Clear Skies.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120317/EMr17Mar12.jpg

#### O·····Subject: Mars - March 18th, 02:15ut Received: Mon 19 Mar 2012 04:43 JST

Hi Mr. Minami and Mr Murakami, Here I send my latest session from March 18th,

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120318/EMr18Mar12.jpg$ 

Clear Skies.

#### O·····Subject: Mars - March 19th, 02:31ut Received: Wed 21 Mar 2012 22:38 JST

Hi Mr. Minami and Mr. Murakami, Here I send my latest session from March 19th under unfovourable conditions, Clear Skies.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120319/EMr19Mar12.jpg

#### O·····Subject: Mars - March 20th, 02:51ut Received: Thu 22 Mar 2012 15:27 JST

Hi Mr. Minami and Mr. Murakami, Here I send my latest session from march 19th under unfovourable conditions, Clear Skies.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120320/EMr20Mar12.jpg

#### O·····Subject: Mars - March 22nd, 04:06ut Received: Fri 23 Mar 2012 15:15 JST

Hi Mr. Minami and Mr. Murakami, I submit my latest session from the 22nd of March: Terminator protrusion is still evident on the limb S/T is below average, Clear Skies.

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120322/EMr22Mar12.jpg$ 

#### O·····Subject: Mars - March 23rd, 02:41ut Received: Sat 24 Mar 2012 02:55 JST

Hi Mr. Minami and Mr. Murakami, Here are my observations and a short one (lots of rain) from this morning on the 23rd, Clear Skies.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120323/EMr23Mar12.jpg

#### O·····Subject: Mars - March 24th, 03:03ut Received: Sun 25 Mar 2012 15:00 JST

Hi Mr. Minami and Mr. Murakami, Here is my latest session from the 24th of march only managed two sets before the rain; Clear Skies.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120324/EMr24Mar12.jpg

### O·····Subject: Mars - March 28th, 01:28ut Received: 31 Mar 2012 12:03 JST

Hi Mr. Minami and Mr Murakami, Here is my latest processed session from the 28th under not so ideal conditions, Clear Skies.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120328/EMr28Mar12.jpg

#### Efrain MORALES RIVERA (PUERTO RICO)

#### • ····· Subject: Mars 2012.03.14 Received: Fri 16 Mar 2012 04:24 JST

Dears,

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120314/MDc14Mar12.jpg

Images from last night under deteriorating seeing:

http://astrosurf.com/delcroix/images/planches/m20120314-MDe.jpg

Still IR got out ok. Clear skies,

O ····· Subject: Mars "Wayne's" cloud previous observation on 2012.03.12 Received: Thu 22 Mar 2012 14:37 JST

Dears, FYI, as mentioned by Christophe Pellier, the zone were the cloud detected by Wayne on March 20th was well observed by several French observers (and I am sure by other European observers) a few days before, showing in simultaneous observations what Christophe pointed to us already at that time as a suspected high altitude cloud.

Here is the observation I made on March 12th (8 days before Wayne's), where I measured the feature around 194° longitude / 45° latitude (in Terra Cimmeria?):

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

I also measured Wayne's excellent image 8 days later, where the feature is bigger, at  $\sim$ 193 $^{\circ}$  longitude / 42 $^{\circ}$  latitude :

http://www.astrosurf.com/planetessaf/mars/images/planches/m20120320g-02h45UT-WJa.jpg

On Don Parker's image the day after, the feature looks way bigger and elongated, over the same zone:

http://www.astrosurf.com/planetessaf/mars/images/planches/m20120321-03h22UT-DPa.jpg

The evolution of this feature is really interesting to follow! Sincerely,

O ····· Subject: Mars 2012.03.23 Received: Sat 24 Mar 2012 21:49 JST

Hi all.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120323/MDc23Mar12.jpg

Under bad seeing, only IR image got out ok:

http://astrosurf.com/delcroix/images/planches/m20120323-MDe.jpg

Marc DELCROIX (Tournefeuille, FRANCE)

#### • ····· Subject: Mars images (March 6th 2012.) Received: Fri 16 Mar 2012 05:36 JST

Hi all,

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120306/DPc06Mar12.jpg

Poor seeing on this night and only one set of images was obtained. Brilliant orographic cloud over Olympus Mons. Weak orographic over Elysium. Lemuria remains prominent.

http://www.damianpeach.com/mars1112/2012\_03\_06rgb.jpg

Best Wishes

O···· Subject: Mars images (March 8th 2012.) Received: Sat 17 Mar 2012 07:35 JST

Hi all,

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120308/DPc08Mar12.jpg

Here are some images from March 8th. I observed visually for a time at 400x and was struck by how brilliant the Olympus orographic cloud was - easily the brightest thing on the disk, far brighter than the NPC. This aspect really shows up nicely in the image with the dark summit punctuating the cloud.

http://www.damianpeach.com/mars1112/2012\_03\_08rgb.jpg

Best Wishes

# O·····Subject: Re: Mars 21 March with unusual cloud Received: Fri 23 Mar 2012 04:13 JST

Hi all, Upon reviewing my backlog of Mars data still to publish I just discovered i have some very good images of this cloud on the night of March 14th under excellent seeing. Will try and get an image out soonish. The cloud is clearly visible in all filters projecting off the limb.

### O ···· Subject: Mars images (March 11-12th 2012.) Received: Tue 27 Mar 2012 00:08 JST

Hi all, The first of many nights of images so far this month. Very good seeing for this session.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120311/DPc11Mar12.jpg

Brilliant orographics over Tharsis and OM. Only one side of OM is flanked by clouds which trail off to the west. Delicate ECB straddles the equator. into dense haze over Elysium.

 $RGB: \ http://www.damianpeach.com/mars1112/2012\_03\_11-12rgb.jpg$ 

 $Blue\ Light:\ {\it http://www.damianpeach.com/mars1112/2012\_03\_11blue.jpg}$ 

Best Wishes

○ ·····Subject: A very cloudy Mars Received: Thu 29 Mar 2012 03:52 JST Hi all,

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120314/DPc14Mar12.jpg

Some preliminary images from March 14th (currently wading through a huge backlog of imagery.)

Some excellent seeing occurred here on this night (a full set of images will follow in the days ahead) but i wanted to send these first as there is much of note, especially in the high quality B filter image i was able to obtain. Interesting to note the orographic clouds flanking the volcanoes notably become weaker and fainter the further south in latitude you look with Arsia Mons having only a very small and weak cloud flanking it. Also interesting to note all the orographics flank the western sides of the volcanoes with the Ascraeus cloud being far and away the brightest and largest. Chasma Borealis is nicely seen in the NPC with fragmented outliers.

http://www.damianpeach.com/mars1112/2012\_03\_14rgb01.jpg

Best Wishes

Damian PEACH (Selsey, WS, the UK)

### • ····· Subject: Mars 14th March - good seeing Received: Fri 16 Mar 2012 07:47 JST

At last we had some good seeing when the mist held off long enough to get more than one set of RGBs.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120314/PEd14Mar12.jpg

Olympus Mons poking through the cloud on the CM, A lot of cloud above Tharsis region and on the opposite limb near Elysium. Regards

Peter EDWARDS (Horsham, WS, the UK)

#### • ····· Subject: Mars 2012/03/15-Kumamori Received: Fri 16 Mar 2012 08:33 JST

Masatsugu MINAMI-sama: The sky continued fine four nights. The seeing improved and I was able to describe the perimeter of the npc.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120315/Km15Mar12.jpg

#### O·····Subject: Mars 2012/03/21-Kumamori Received: Thu 22 Mar 2012 20:46 JST

Masatsugu MINAMI sama

I will write down the phase angle ι henceforth. However no calculation software showing ι is found (except for the CMO):

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120321/Km21Mar12.jpg

I tried to use Blue image on L to compose L(Blue)RGB image. I did so because the colour camera gave a different-type colour balance. With best wishes,

#### O ····· Subject: Mars 2012/03/24-Kumamori Received: Sun 25 Mar 2012 09:51 JST

M MINAMI-sama, Yesterday the weather remained unstable with strong wind. Delayed to be aware the sky showed a lull, I got just one set.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120324/Km24Mar12.jpg

Best wishes

#### O·····Subject: Mars 2012/03/27-Kumamori Received: Wed 28 Mar 2012 21:18 JST

M MINAMI-sama; I expected the seeing became better because the high pressure approached us, but unfortunately a bit only better compared with the time the winter-type configuration prevailed. I suppose still the unstable atmosphere continues here.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120327/Km27Mar12.jpg
Best regards,

Teruaki KUMAMORI (Sakai-Osaka, JAPAN)

#### • ····· Subject: Mars Sketch 15 March 2012 Received: Fri 16 Mar 2012 11:33 JST

Hello, Please find attached my Mars observation and sketch. http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120315/MRs15Mar12.jpg I was very excited because I was able to see the Syrtis Blue Cloud visually. Notes are with the sketch and in the body of this email. Thank you,

Michael ROSOLINA (Friars Hill, WV)

Twin Sugars Observatory

#### • ····· Subject: Mars 14 March Received: Fri 16 Mar 2012 12:16 JST

Hi All, I have attached some RGB and UV Mars images from 14 March.

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120314/DPk14Mar12.jpg$ 

The sets were shot 71 minutes apart, and over this time the Elysium cloud brightened significantly as the region passed local noon. The ECB across Isidis was again conspicuous. There was moderate to strong blue clearing, and the Syrtis Blue cloud was conspicuous.

Best,

#### ○·····Subject: Mars 17 March Received: Sun 18 Mar 2012 14:45 JST

Hi All, I have attached some RGB Mars images from

CMO No. 397

17 March.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120317/DPk17Mar12.jpg

The Tharsis orographics were brilliant on the PM limb. There appears to be a trace of dust over the AM side of the NPC. Best,

○ ·····Subject: Mars 21 March with unusual cloud Received: Thu 22 Mar 2012 07:58 JST

Hi All

When I first started processing these images, I was ready to smash my telescope because of the terminator "defect!". But thanks to Wayne's great work my scope was spared.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120321/DPk21Mar12.jpg

This "cloud" on the morning limb is truly extraordinary. Evening limb orographics are never this high. This feature reminds me of the SL-9 impact plumes that were carried over the limb of Jupiter in July of 1994. Moreover, it is prominent on the red as well as the blue channel. At the risk of sounding daft, perhaps it is of impact and not meteorological origin. I agree with Roger Venable that one must take the terminator into account when determining the height of this cloud. However Mars is 98.4% illuminated now, so the terminator effect is minimal — the cloud still has dramatic altitude. Furthermore I have never seen a cloud like this even when the Tharsis orographics are on the evening terminator during perihelic apparitions.

Who said that Mars is boring this year?? Best,

○·····Subject: Re: Mars 2012-03-22 Received: Fri 23 Mar 2012 03:25 JST

Hi Sylvia, Nice images. It's amazing what you have done with an 8-inch scope. It does indeed look like dust. We will have to see if it moves and obscures any features. I doubt that this will happen, since stationary dust clouds are frequent in this region. You have also captured nice NPC details. Best,

○·····Subject: Mars 24 March Received: Mon 26 Mar 2012 11:52 JST

Hi All

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120324/DPk24Mar12.jpg$ 

I have attached some RGB and UV Mars images from 24 March, Numerous bright clouds seen over Tharsis and Candor. The Ascraeus cloud was very bright, and the peaks of Ascraeus and Olympus Montes were seen flanked by clouds. Best,

O·····Subject: Mars 27 March Received: Wed 28 Mar 2012 12:19 JST

Hi All,

I have attached some RGB Mars images from 27 March. The peaks of the four Tharsis volcanoes appear reddish above the cloud deck. Again, the Ascraeus cloud is brilliant.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120327/DPk27Mar12.jpg

The seeing was fair to poor, since a cold front had just passed. Humidity was down to 21%, giving me a nosebleed. Best,

O·····Subject: Mars 30 March Received: 31 Mar 2012 12:57 JST

Hi All, I have attached some RGB and UV Mars images from 30 March.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120330/DPk30Mar12.jpg

There is a streak across the NPC, partially obscuring the western half of the cap. This streak joins a small dust cloud located over the NPC collar. Bright discreet clouds and cloud bands are prominent over much of the disk. Best,

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

#### • ····· Subject: Mars images, 15 march 2012 Received: Fri 16 Mar 2012 22:19 JST

Hi all, Seeing was excellent last night - I had a pair of hour to observe before the fog accumulated on the Atlantic Ocean invade the sky...

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120315/CPl15Mar12.jpg \\ http://www.astrosurf.com/pellier/M2012_03_15-CPE$ 

The amount and the variety of clouds found on the Tharsis hemisphere is just amazing! This set is taking at the time when the orographic cloud over Olympus is just beginning to form. They are already formed over Arsia/Pavonis/Ascraeus. The bottom B, W47 and UV are all the sum of two frames under WinJupos.

Best wishes

(Note by the Ed: CPl emailed again at 00:07 that he had changed the processing of the RGB image. The image on Gallery is the new one)

O ···· Subject: Proposals of notes for ISMO Received: Mon 19 Mar 2012 04:20 JST

Dear Masatsugu, I have two notes to propose to ISMO in a short delay:

1) One about the trend of the Tharsis orographic

25 April 2012 Ser3-0279

clouds. Adding SAF and CMO images, I have a full set of detailed images showing how Olympus and the other grow from local noon to the evening. The particularity being that the clouds show a strong westward trailing effect (that you must have seen on some images). Interestingly enough, this trailing effect looks to be a feature of northern spring to midsummer only: to my surprise, looking at MGS images, I found that the effect disappear from around Ls 140° where the orographic clouds looks roundish (did you know it?)

2) The other about the very weak amount of white clouds in the higher northern latitudes. This one would be a basic note talking about the water vapor cycle and the general circulation on Mars (Hadley cell during northern spring/summer).

I hope that this will be fine to you. Best wishes

O·····Subject: Re: Re: FW: A very odd feature caught on Mars by an amatuer Received: Thu 22 Mar 2012 08:55 JST

Hi all, I have another reference to add to this X-file;) Last summer Reiichi Konnai pointed to me and Masatsugu Minami that an old HST image was showing a very strange protrusion before evening terminator

http://www.astrosurf.com/pellier/HSTmai1997protrusion.jpg

(personal processing; 17 may 1997, Ls = 120°)

>Le 21/03/2012 23:55, Damian Peach a ecrit?:

>Apologies the link should be:

http://www.hida.kyoto-u.ac.jp/~cmo/cmomk/2003/031108/My08Nov03.jpg

>Damian PEACH

From: Damian Peach

Subject: [marsobservers] Re: FW: A very odd feature caught on Mars by an amatuer

I would still go with this feature being a high altitude cloud of some kind. See this series of images i mentioned earlier by Miyazaki in 2003 showing a very similar feature that we are seeing now:

http://www.hida.kyoto-u.ac.jp/~cmo/cmomk/2003/f\_image.html Damian PEACH

# O·····Subject: Trend of morning Tharsis hazes 19 march 2012 Received: Thu 22 Mar 2012 09:02 JST

Hi all,

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120319/CPI19Mar12.jpg

No strange cloud here but a long following of the Tharsis clouds from last monday evening with 5 RGB sets:

http://www.astrosurf.com/pellier/M2012\_03\_19-20a-CPE (RGB) http://www.astrosurf.com/pellier/M2012\_03\_19-20b-CPE (IR/violet)

#### I made these animations with WinJupos:

http://www.astrosurf.com/pellier/animtharsisRGB\_20120312 (color)

http://www.astrosurf.com/pellier/animtharsisB\_20120312 (blue light)

This data shows the dissipation of morning hazes in a pair of hour. Of note is a very bright cloud just between Olympus and the Arsia/Pavonis/Ascraeus chain. Never call this hemisphere "boring" anymore. Call like that the Syrtis Major one: Best wishes

#### O·····Subject: Mars images 24 march 2012 Received: Sun 25 Mar 2012 22:13 JST

Hi all; Average seeing at best last night. The easterly is installed for the whole week so I must expect very poor seeing all long.

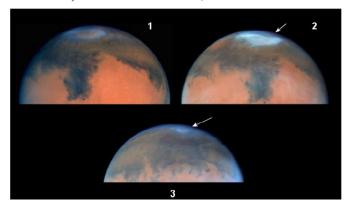
 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120324/CPl24Mar12.jpg$ 

http://www.astrosurf.com/pellier/M2012 03 24-CPE

#### Regards

# O·····Subject: Re: Hellas in the Martian last year Received: Tue 27 Mar 2012 17:10 JST

Dear Reiichi, Nice document! It looks like the frostening of Hellas does happen just on the winter solstice every Martian year, although we would have to look for differences if they exist. Attached is a montage I made for planetes-SAF with HST images from 1997, with two images taken apart in 20 days only (Ls 89 and Ls 98). The phenomenon must be quite rapid (the montage contains as well an image of the frosten Argyre, that might happen earlier, but is quite more difficult to watch from the Earth: again a future subject for an ISMO note)



O·····Subject: Re: Re: Proposals of notes for ISMO Received: 29 Mar 2012 17:29 JST

Dear Masatsugu, My ideas of notes would suit better the post-apparition notes, I think, from what you say - they're not generalist, even if I like to call data from other periods for comparison purposes.

I'm going to propose a different thing for a more rapid publication: recently I have been experimentating the LRGB method for imaging Mars along with RGB, and I will write something on my experience. I think it would be a good idea to have technical articles about Mars observations as well. Best wishes, PS: So here is a list of future ISMO notes on the 2012 apparitions I'm thinking about, but I don't know what kind of topics you have already considered -

- Trend of the Tharsis clouds during the sol (from morning hazes to evening orographics)
- The cloudless northern hemisphere during 2012 apparition (2010 as well here)
- A note to watch if we have detected the frostening of Argyre (when and how)
- Brightening of some Martian relief because of the opposition effect (Tharsis/Elysium)
- of course a note on the frostening of Hellas, this one should have a strong comparative dimension (with 2010, 1997, 1999)

#### O·····Subject: Mars images 28 march 2012 Received: 31 Mars 2012 22:19 JST

Hi all, Some images from last Wednesday.

 $http://www.hida.kyoto-u.ac.jp/\!\!\sim\!\!cmo/cmons/2011/120328/CPl28Mar12.jpg$ 

Seeing turned better at the end of the session.

http://www.astrosurf.com/pellier/M2012\_03\_28-CPE

Recently I have been experimentalising with LRGB imaging (true LRGB) using of course an atmospheric dispersion corrector (ADC). It seems to deliver increased sharpness, although the processing is quite complicated. Best wishes,

**Christophe PELLIER** (Nantes, FRANCE)

#### • · · · · · Subject: Mars 20120315 21:46 GMT Received: Sat 17 Mar 2012 00:38 JST

Hello, I send to you a new picture that I obtained on the night of 15th march 2012 at 21:46 GMT

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120315/FFn15Mar12.jpg

Clouds in the equatorial belt

Telescope Meade LX 90 D=203 mm F.25 DSI III Pro Camera. Red-Blue Filters

Yours sincerely

#### O ..... Subject: Mars 20120319 20:45 GMT Received: Wed 21 Mar 2012 04:21 JST

Hello, I send to you a new picture that I obtain the night, 19th march of 2012. 20:45 GMT

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120319/FFn19Mar12.jpg

Telescope Meade LX 90 D=203 mm F.25 DSI III Pro Camera. Red-Blue Filters

Yours sincerely

O·····Subject: Mars 20120322 20:36 GMT Received: Fri 23 Mar 2012 19:23 JST

Hello, I send to you a new picture that I obtained on the night of 22nd March 2012 at 20:36 GMT

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120322/FFn22Mar12.jpg

Telescope Meade LX 90 D=203 mm F.25 DSI III Pro Camera. Red-Blue Filters

Yours sincerely

#### Francisco Jose FERNANDEZ GOMEZ

(Ourense, SPAIN) http://www.aristarco.org

#### • ····· Subject: Mars 2012-03-15 Received: Sat 17 Mar 2012 04:05 JST

Hi. With bad transparency, allowed me a regular picture.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120315/CFm15Mar12.jpg

Best regards

O ····· Subject: Mars 2012-03-27 Received: Wed 28 Mar 2012 19:08 JST

Hi. My Mars on 2012-03-27 with a regular seeing.

I can only send my images to this address, the other address is rejected by my server. Please excuse

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120327/CFm27Mar12.jpg

Best regards.

O ····· Subject: Mars 2012-03-29 Received: 31 Mar 2012 00:27 JST

Hi. Poor transparency because of a possible fire distant.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120329/CFm29Mar12.jpg

Best regards.

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

www.mipaginapersonal.movistar.es/web3/c1f2u3 www.ourenseastronomico.org

#### • ····· Subject: Mars - 2012 March 2 Received: Sat 17 Mar 2012 06:18 JST

Hi Masami and Masatsugu, I send you an image of

Mars taken last 2nd of March.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120302/SBl02Mar12.jpg

Greetings,

Simone BOLZONI (Santhiá, ITALY)

#### • ····· Subject: Mars: March 15, 2012 (2nd posting) Received: Sat 17 Mar 2012 15:21 JST

Hi - I have attached my Mars image March 15, 2012 at 3:24 UT. It is a slight improvement over the first one I sent to you. You can delete the March 15, 2012 at 3:18 UT image from the CMO website and replace this one as a revised.

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120315/FMl15Mar12.jpg$ 

Thanks,

#### O·····Subject: Mars: March 18, 2012 Received: Mon 19 Mar 2012 14:33 JST

Hi - I have attached my latest images of Mars March 18, 2012 to be posted.

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120318/FMl18Mar12.jpg$ 

Thanks,

#### ○ ·····Subject: Mars: March 19, 2012 Received: Tue 20 Mar 2012 14:34 JST

Hi - I have attached my latest images of Mars March 19, 2012 to be posted.

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120319/FMl19Mar12.jpg$ 

Thanks,

#### O·····Subject: Mars: March 23, 2012 Received: Sat 24 Mar 2012 14:35 JST

Hi - I have attached my latest images of Mars March 23, 2012 to be posted.

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120323/FMI23Mar12.jpg$ 

Thanks,

#### O·····Subject: Mars: March 24, 2012 Received: Sun 25 Mar 2012 14:18 JST

Hi - I have attached my latest image of Mars March 24, 2012 at 3:35 UT to be posted.

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120324/FMl24Mar12.jpg$ 

Thanks,

#### O·····Subject: Mars: March 28, 2012 Received: 29 Mar 2012 15:24 JST

I have posted my latest images March 28, 2012 to be posted.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120328/FMI28Mar12.jpg

Also, I have included a short animation.

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120328/s20120328a\_fjm.gif$ 

O ····· Subject: Mars: March 29, 2012

#### Received: 30 Mar 2012 13:50 JST

All - I have attached my latest image of Mars March 29, 2012 at 3:46 UT to be posted.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120329/FMl29Mar12.jpg

The Equatorial Cloud Band (ECB) is quite impressive in spite of the below average seeing condition. Thanks, **Frank J MELILLO** (Holtsville, NY)

#### • ····· Subject: Mars 2012/03/14 Received: Sat 17 Mar 2012 20:58 JST

Hello, Here is Mars on 2012/03/14.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120314/JPp14Mar12.jpg

Regards

#### O ····· Subject: Mars 2012/03/19 Received: Tue 20 Mar 2012 18:22 JST

Hello, Here is Mars on 2012/03/19.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120319/JPp19Mar12.jpg

The transparency was poor. T=0.0 $^{\circ}$ C . Regards

Jean-Jacques POUPEAU (Essonne, FRANCE)

### • ·····Subject: Mars Drawings 16 Mar 12 Received: Sat 17 Mar 2012 22:18 JST

Dear Masatsugu and Masami, here are two drawings of Mars made on 16 March. Just before the breaking of the sky, the surface looked in a low contrast. They say tomorrow the weather will be no good; perhaps next occasion will be on Monday

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120316/Kz16Mar12.jpg

Best regards

Ichiro KOHZAKI (Higashi-kurumé, Tokyo, JAPAN)

#### • ····· Subject: Mars observations of last week and... Received: Sat 17 March 2012 11:59 JST

Good afternoon, I am transmitting you my observations about Venus and Mars from the 11th until the 16th performed with the 203mm cassegrain.

I did some quotations about the mars white clouds that on sometimes was also clear to bright in red light on 11th (the 11th sketch are L-R inverted).

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120311/SMk11Mar12.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120312/SMk12Mar12.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120313/SMk13Mar12.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120314/SMk14Mar12.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120315/SMk15Mar12.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120316/SMk16Mar12.jpg

About Venus something is strange to me regarding

the caps extension. They appear larger bright in

On the 14th with fixed images a bright fillet near the cap was seen separated by a dark thin band.

Few spots captured in dark red light, but with excellent images. For your perusal.

When the venus phase will become crescent, I will use a 12mm eyepice equipped with a band of B/W camera film in order to occult the bright crescent. The use of colored filter serie will be apply so that the brightness in each will be quoted.

It is easy to do each end of afternoon, dawn light and night. I loosed my old eyepiece with the occulting band, a challenge to install one into an eyepiece.

We will see the results exhaustively.

Have good receipt of the present mail. Faithfully O ····· Subject: Venus Mars observations last 19th Received: Wed 21 March 2012 3:07 JST

Dear sir, Here are some observations performed last 19th with only the 127mm cassegrain. Still the equatorial haze on mars. For your perusal.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120319/SMk19Mar12.jpg

○·····Subject: Mars last 21st Received: Friday, 23 March 2012 02:17 JST

Dear sir, My contribution about Mars 21st.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120321/SMk21Mar12.jpg

For your perusal. Faithfully

#### ○·····Subject: mars this night 22nd Received: Friday 23 March 2012 07:11 JST

Dear sir, I think there is something strange north of sinus meridiani and pandorae fr and northern area.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120322/SMk22Mar12.jpg

I captured something away the limb of the planet corresponding to bright patch in yellow light surrounded on the disk to a yellow cloud occulting the features. This is probably a dust cloud storm that I didn't collect last time the 21st. However on 21st there was not the pattern accessible as this night. This night with a similar CM the patch is difficult to see at the first look. Nevertheless, some drawings here in different colors of this yellow cloud. I will try to-morrow to see if the limb will provide this strange anomaly again as shown this night. For your perusal.

This needs a narrow follow-up. That recall me the events of the 1981 opposition, this is similar.

We will see. Faithfully

#### O·····Subject: Venus and Mars last 23rd Received: Sat 24 March 2012 23:00 JST

Dear sir, I tried again last night at times in order to cover the same conditions of mars looking than the night before. What I can say.

- I did not see some altitude cloud,
- it remains this yellow patch rather on the pole limb the brightest color being yellow, yesterday night on Noachis,
- something seems to cover the Noachis area and Pandorae Fretum area.
- Hellas exhibited hazy whitish.

The area on controversy is indeed with low contrasted features before this (Deucalionis) but the yellowish aspect is here.

Globally the images were not at the same quality level than before yesterday and the event presented less conspicuousness.

I covered from 18H50UT with the 200mm until 20h00 -20H55UT with the 300mm.

Less conspicuous. On the patch a brighter dot on the limb visible in green yellow red colors, that may involve the vision of a high altitude cloud at the limb by glaring effect. With the 305mm this was not seen but the brighter dot yes.

Deucalionis was seen by transparency. For your perusal. Have good receipt of the present mail.

O·····Subject: Mars observations from 25th until 28th Received: Friday, 30 March 2012 02:41 JST

Dear sir, Here are some observations about Venus and Mars for the period 25-28th.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120325/SMk25Mar12.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120326/SMk26Mar12.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120327/SMk27Mar12.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120328/SMk28Mar12.jpg

The seeing was not negligible and it was a fight to capture on Mars. For your perusal.

#### O·····Subject: Re: mars this night 22nd Received: Friday, 30 March 2012 15:55 JST

Dear sir, Just to remind you the below mail regarding this feature away the limb captured last 22nd on Mars. The report of 22nd is OK and surprised me at the date. This was not obvious on 23rd. There was notes on the sketches that does not appear on the

CMO report, the event disappeared at 20H35UT that may imply this is rotating with the planet.

Regarding the phenomena reported also by the US observers more accurately,

I think if the aurorae hypothesis is expectable, this is not a localised event but covering a large surface area. The phenomena from my expectations stood in yellow and above colors, not in the blue and green portions.

The images were very good, not perfect quoted 8/10 at best moments. Faithfully

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2012/3/22 stanislas maksymowicz <stsma78@gmail.com> Dear sir

I think there is something strange north of sinus meridiani and pandorae fretum and northern area. I captured something away the limb of the planet corresponding to bright patch in yellow light surrounded on the disk to a yellow cloud occulting the features.

This is probably a dust cloud storm that I didn't collect last time the 21st. However on 21st there was not the pattern accessible as this night. This night with a similar CM the patch is difficult to see at the first look. Nevertheless, some drawings here in different colors of this yellow cloud I will try to-morrow to see if the limb will provide this strange anomaly again as shown this night. For your perusal.

This needs a narrow follow-up. That recall me the events of 1981 opposition, this is similar.

We will see. Faithfully

Stanislas

O·····Subject: Subject: Re: mars this night 22nd Received: 31 March 2012 23:14 JST

Dear Masami san, I was just speaking about the event occurred last 21st at the north mars area. I am sorry for the disturbance. I feel something was reported obviously on 22nd and aleatory last 23rd from me. This could bring something for the understanding of the phenomena revealed by the US observers for a side limb of Mars reported. Personally this was at the opposite limb of Mars the night after. To be frank I attributed this to a storm activity (a yellow cloud because brighter under this color) and not to an aurorae activity. However, the 22nd night report remains obvious. Now I understand that this way of report undertaken visually becomes so obsolete, and more and more, that this cannot be considered. I think the notes mentioned on the sketch add something more than the sketch itself. Sorry for the disturbance. Feels that you will not bother of me now with my dozen of color filters. Regards.

#### **Stanislas MAKSYMOWICZ** (Ecquevilly, FRANCE)

• ····· Subject: Mars from last night Received: Sun 18 Mar 2012 10:38 JST

Hello everyone, I captured the attached image through a large break in the cloud cover. The seeing was poor to mediocre.

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120317/SBd17Mar12.jpg$ 

Regards,

O·····Subject: Mars last night Received: 29 Mar 15:24JST

Hi everyone, The seeing last night was very different than what I've been getting lately. There was no flowing water effect when defocusing the planet but rather just non-directional turbulence. The end result, however, was the same mediocre seeing.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120328/SBd28Mar12.jpg

Regards,

**Stefan BUDA** (Melbourne, AUSTRALIA)

• ····· Subject: Mars 12 March Received: Sun 18 Mar 2012 15:49 JST

My best for the apparition so far.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120312/RHI12Mar12.jpg

On Monday I tore my rotator cuff (again!) on my left shoulder so I don't know how much more I will get done this apparition.

O ····· Subject: Mars 22 March Received: Fri 23 Mar 2012 03:29 JST

I got some pretty good seeing last night (8/10)....finally.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120322/RHI22Mar12.jpg

O·····Subject: Cloudy Mars 28 March Received: Thu 29 Mar 2012 02:19 JST

My latest effort in pretty good seeing for my place.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120328/RHI28Mar12.jpg

O ····· Subject: Re: Mars 27 March Received: Thu 29 Mar 2012 02:28 JST

That's the way retirement otta be! Nice going.

O·····Subject: Re: Cloudy Mars 28 March Received: Thu 29 Mar 2012 04:06 JST

No, our seeing is better because we've gone from a winter weather set up into a summer one. Our temps are around 90f in the daytime and stay around 70 until 10pm or midnight then they drop suddenly to 50. That's when the seeing falls apart. Love the drawings you're doing. Tip your eye Dr.!

Rik HILL (Tucson, AZ)

#### • ·····Subject: Mo15Mar\_12

#### Received: Sun 18 Mar 2012 23:32 JST

M MINAMI sama: These are from 15 March. Clouds flowed, but seeing was better and the images improved. Hellas was very bright looking roused.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120315/Mo15Mar12.jpg

#### Best wishes

#### ○·····Subject: Mars Mo19Mar\_12 Received: Sun 25 Mar 2012 00:31 JST

M MINAMI-sama; Just finished in processing two sets of Mars images from 19 March. I continue to do about those on 20 Mar and 21 Mar.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120319/Mo19Mar12.jpg

#### Best wishes

#### ○·····Subject: Mo21Mar\_12 Received: Mon 26 Mar 2012 02:27 JST

M MINAMI-sama; Here is one set from 21 March. Seeing was rather stable, and the area of Syrtis Mj was well seen. The brightness of Hellas is not uniform.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120321/Mo21Mar12.jpg

Today it is sometimes bright but it sleets sometimes, and so next opportunity will come after tomorrow.

Yukio MORITA (Hatsuka-ichi, Hiroshima, JAPAN)

#### • ····· Subject: Mars images Ak16Mar Received: Mon 19 Mar 2012 18:08 JST

Dear Mr. Minami, I attach here two sets of Mars images from 16 March 2012. The seeing and transparency were poor.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120316/Ak16Mar12.jpg

By the way I did clean up my C14 (CP and mirror) yesterday. I changed the color of tube to be silver.



#### O·····Subject: Mars images Ak21Mar12 Received: Fri 23 Mar 2012 13:39 JST

Dear Mr. Minami, I attach two sets of Mars images from 21 March 2012. Transparency was poor.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120321/Ak21Mar12.jpg

#### Best Wishes

### O·····Subject: Ak22Mar12 Ak23Mar Ak24 Mar12 Received: Mon 26 Mar 2012 13:35 JST

Dear Mr. Minami, I attach new Mars images on 22, 23, 24 March 2012.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120322/Ak22Mar12.jpg

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120323/Ak23Mar12.jpg

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120324/Ak24Mar12.jpg

#### Best Wishes

#### O ····· Subject: Mars images Ak25Mar12 Received: Tue 27 Mar 2012 18:35 JST

Dear Mr. Minami, I attach Mars images on 25 March 2012. Seeing was good.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120325/Ak25Mar12.jpg

#### Best Wishes

#### O·····Subject: Mars image Ak28Mar12 Received: Thu 29 Mar 2012 02:23 JST

Dear Mr. Minami, I attach some Mars images on 28 March 2012. Seeing was good, but there was a wind.

 $http://www.hida.kyoto-u.ac.jp/\sim\!cmo/cmons/2011/120328/Ak28Mar12.jpg$ 

In blue image, there is some of vertical pattern from SPC to center and much of mist along the equatorial zone. Best wishes,

#### O·····Subject: Mars images 30 March 2012 Received: 31 Mar 2012 18:27 JST

Dear Mr. Minami, I attach a series of Mars images from 30 March 2012. The seeing and transparency were both good.

 $http://www.hida.kyoto-u.ac.jp/\sim\!cmo/cmons/2011/120330/Ak30Mar12.jpg$ 

#### Best Wishes

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

#### • ····· Subject: Mars Image 18-Mar-2012 Received: Mon 19 Mar 2012 20:36 JST

Hi all, Finally got off my bottom to produce my first Mars image from the UK this year! Not bad seeing here last night.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120318/ISp18Mar12.jpg

http://tinyurl.com/79rh2qq

# O·····Subject: Mars Image 23-Mar-2012 - great seeing Received: Sat 24 Mar 2012 19:36 JST

Hi all, Great seeing last night. Here's an RGB Mars image.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120323/ISp23Mar12.jpg http://tinyurl.com/6upekml

Is that Olympus Mons poking through the clouds on

the limb? Best Regards

○ ···· Subject: Mars Image 27-Mar-2012

Received: Wed 28 Mar 2012 19:02 JST

Hi all, An image from last night with rather jittery seeing. Mars now under 13" again!

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120327/ISp27Mar12.jpg

http://tinyurl.com/d3kne4t

#### Best Regards

### O·····Subject: Mars 28-Mar-2012 Good Seeing Received: 29 Mar 2012 17:17 JST

Hi all, Much better seeing last night.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120328/ISp28Mar12.jpg

http://tinyurl.com/bvevo7k

#### Best Regards

○·····Subject: Mars 29-Mar-2012 Received: 30 Mar 2012 17:18 JST

Hi all, http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120329/ISp29Mar12.jpg Seeing only fair last night. Syrtis Major creeping further on. http://tinyurl.com/ccbv4bp

Regards

lan SHARP (Ham, WS, the UK)

#### • ····· Subject: Mars from Thursday 10th March 2012 Received: Tue 20 Mar 2012 07:17 JST

Hi, Here is Mars from just past midnight on the 10th March in more jittery seeing.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120310/MLw10Mar12.jpg

#### Cheers,

#### O ····· Subject: Investigations into the Mars edge artefact Received: Tue 20 Mar 2012 07:43 JST

Hi, As planetary imagers and observers and Mars close to opposition you might be interested in the write up of my investigations into the 'edge rind' effect on Mars.

My conclusion seems to be it is an optical diffraction effect - but see what you think. See

http://www.skyinspector.co.uk/Mars-Edge-Artefact(2449277).htm

Comments most welcome.

All the best

#### O·····Subject: Mars from 11th March and 14th March 2012 Received: Thu 22 Mar 2012 08:31 JST

Hi, Here are two Mars images from last week showing some nice cloud details.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120311/MLw11Mar12.jpg

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120314/MLw14Mar12.jpg

#### Cheers,

#### O ..... Subject: 19th March (and 11th March rework) Received: Fri 23 Mar 2012 09:17:24 JST

Hi, Mars from 19th March in moderate seeing showing the location of the three Tharsis volcanoes and Olympus Mons as holes in the morning mists.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120319/MLw19Mar12.jpg

(Also Mars from 11th reworked since last sent out).

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120311/MLw11Mar12.jpg

#### Cheers,

#### O ····· Subject: Mars from 18th March 2012 Received: Wed 28 Mar 2012 08:19 JST

Hi, Mars from 18th March in moderate seeing, again showing interesting morning mists over Tharsis region and a curious darker 'tadpole' feature seeming to connect the three Tharsis volcanoes.

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120318/MLw18Mar12.jpg$ 

Best wishes,

**Martin LEWIS** (St. Albans, the UK) www.skyinspector.co.uk

#### • ····· Subject: Mars, March 19 Received: Tue 20 March 2012 11:31 JST

All, here is an image of Mars from last night in poor seeing, even using

IR for red in this case only gives a marginal result.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120319/AWs19Mar12.jpg regards,

# O·····Subject: Mars in RGB and IRGB, March 20 Received: Wed 21 March 2012 9:18 JST

Here are two Mars images from last night - one in the natural RGB and the other in IR-G-B. The seeing was still not very good but better than for the last few days.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120320/AWs20Mar12.jpg

#### Links:

#### RGB image:

http://www.acquerra.com.au/astro/gallery/mars/20120320-124902/large.jpg

#### IR-G-B image:

 $\label{lem:http://www.acquerra.com.au/astro/gallery/mars/20120320-123559/large.jpg \\ \textbf{regards,}$ 

#### Anthony WESLEY (NSW, AUSTRALIA)

#### • ····· Subject: Mars 14-March-2012 Received: Tue 20 Mar 2012 21:00 JST

Hi Guys yet another evening of useful seeing. Although Mars only appears to have rotated the wrong way by 9 degrees, its good to get the processing practice, try new timings, softwares, filters, magnifications and to observe the latest clouds. We only have this short "Mars experience window" every two years. I must write it down for this one!

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120314/DTy14Mar12.jpg

Best wishes

#### O·····Subject: Mars 18-March-2012 Received: Sun 25 Mar 2012 04:55 JST

Hi Guys Seeing was not bad for the hot channels. Plenty of cloud and mist, with the volcano's showing through.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120318/DTy18Mar12.jpg

Best wishes

#### O·····Subject: Mars 24-March-2012 Received: Tue 27 Mar 2012 16:28 JST

Hi Guys Here are a trio of images from the decent seeing of the 24th, showing Mare Acidalium etc climbing out of the morning mists.

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120324/DTy24Mar12.jpg$ 

Best wishes

#### O·····Subject: Mars 26-March-2012 Received: 31 Mar 2012 17:39 JST

Hi Guys There are many excellent images of Mars in my inbox. It's good to see them.

Here's a couple of images from me from the 26th, seeing fair.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120326/DTy26Mar12.jpg

Best wishes

**Dave TYLER** (Bucks, the UK) www.david-tyler.com

#### • .....Subject: Re: We have a freedom to reject Received: Tue 20 Mar 2012 21:12 JST

Dear Masatsugu,

I quite understand all of the above; I didn't know about these things. I have recently had to deal with a rather unpleasant matter involving the real ALPO here, so I understand what you are saying about courtesy, ethics, etc.

I am pretty busy at the moment but hope soon to begin writing up the Nice and Juvisy experiences --Francis Oger and his wife were wonderful hosts, and we did get a chance at Mars with the grand old refractor of Flammarion.

Paolo Tanga was wonderful to us, and I am now eager to begin serious preparations for the transit --Paolo may join me at Mt. Wilson, and in any case is busy working on special coronagraphs which will be used to image the aureole and allow profiling of Venus's atmosphere.

Hoping that you and Nakajima are getting excellent observations.

Warm regards,

Bill SHEEHAN (Willmar, MN)

#### • ····· Subject: mars 19 march Received: Wed 21 Mar 2012 04:46 JST

Hi: On 19th seeing was average & atmosphere was good. So I took some images PLS; see one of them.

 $http://www.hida.kyoto-u.ac.jp/\sim\!cmo/cmons/2011/120319/SGh19Mar12.jpg$ 

**Best Wishes** 

#### O ····· Subject: mars 21 march Received: Fri 23 Mar 2012 00:48 JST

Hi, Average seeing & good atmosphere on 21 march: I took some images. PLS see them.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120321/SGh21Mar12.jpg

Best Wishes

#### O·····Subject: Mars 23 March Received: Sat 24 Mar 2012 10:44 JST

Hi: Unstable atmosphere & average seeing while I could take one picture of Mars. PLS see it.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120323/SGh23Mar12.jpg

Best Wishes

#### O·····Subject: Mars 25 March Received: Wed 28 Mar 2012 05:10 JST

Hi My Guys, On 25th March in Tehran was especial night when the seeing was good & atmosphere was Very good. You can see more details: Syrtis Major Planum & of Brazos Valles & another.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120325/SGh25Mar12.jpg

Best Wishes,

○ ····Subject: Mars 26 march

#### Received: 30 Mar 2012 04:51 JST

Hi. At this night 26th weather was partly cloudy and skies & atmosphere were unstable .

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120326/SGh26Mar12.jpg

Best Wishes,

O ···· Subject: Mars 29 March

Received: 31 Mar 2012 09:51 JST

Hi: Seeing was blurred over last night on 29th: It was totally not good.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120329/SGh29Mar12.jpg

Cheers

#### Sadegh GHOMIZADEH (Tehran, IRAN)

• · · · · · Subject: Mars - 2012

Received: Wed 21 March 2012 Sent: 12 March 2012 (Air-Mail)

Dear Masatsugu,

Enclosed my MARS observations to date. Seeing has left a lot to be desired plus new lighting at a local garage has not helped either.

Time is somewhat limited due to my wife's poor health. Her mobility is limited and my domestic duties are more or less total but we are coping with.

I have been refilling my astronomical records recently and found I had completed 60 years of records and had just over 15, 000 observations. Of these trough, 11, 000 or so were of the Sun. So much for being a planetary observer.

Hoping all is well with you and there should be more observations in due course. The MARS BULLETIN is, as always, a joy to read and for which my grateful thanks.

All Best Wishes

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

### • ····· Subject: Mars in February and March Received: Thu 22 Mar 2012 00:33 JST

Dear all, Here's a batch of Mars images from the last month. The most recent image (March 19) is the first with my new DBK618 camera - with some more practise on the settings I'm sure the images will get brighter, sharper and more detailed. Wow, what a difference to the ToUCam!

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120225/JWr25Feb12.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120227/JWr27Feb12.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120301/JWr01Mar12.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120303/JWr03Mar12.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120304/JWr04Mar12.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120308/JWr08Mar12.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120313/JWr13Mar12.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120313/JWr13Mar12.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120314/JWr14Mar12.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120316/JWr16Mar12.jpg http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120316/JWr16Mar12.jpg

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120319/JWr19Mar12.jpg

All the best,

O ····· Subject: Mars, 23 and 25 March Received: Tue 27 Mar 2012 14:10 JST

Dear all, A couple of new Mars images from the 23rd and 25th with the new TIS camera. Ascraeus Mons peaks through the cloud deck nicely on the first date.

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120325/JWr25Mar12.jpg$ 

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120323/JWr23Mar12.jpg

All the best,

Johan WARELL (Skivarp, SWEDEN)

### • ····· Subject: Mars March 20th Received: Thu 22 Mar 2012 03:11 JST

Dear All, One from last night...moderate seeing but still quite 'flickery'. The 4 big volcanoes well seen.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120320/SKd20Mar12.jpg

#### Regards

O·····Subject: Mars March 23rd Received: Sun 25 Mar 2012 03:54 JST

Hi All, Last night was a little better for seeing.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120323/SKd23Mar12.jpg

#### Cheers

O·····Subject: Mars March 24th Received: Wed 28 Mar 2012 04:16 JST

Hi All, Good conditions. Interesting radial patterns on the mist and terrain around Ascraeus Mons.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120324/SKd24Mar12.jpg

Regards

Simon KIDD (Welwyn, Herts, the UK)

#### • ·····Subject: Unusual Feature on Mars Received: Thu 22 Mar 2012 05:21 JST

After seeing an image that showed what appeared to be a large cloud (?) feature on Mars I started processing my images from last night and sure enough I have it on several images. Here is the best so far. I have highlighted the area so it can be seen easily. It is best seen in the blue channel.

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120321/JPh21Mar12.jpg$ 

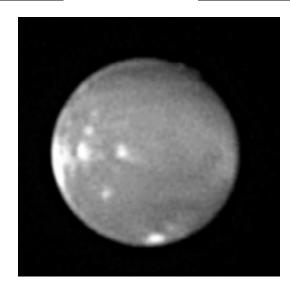
best,

O·····Subject: Blue Channel Unusual Feature on Mars Received: Thu 22 Mar 2012 06:02 JST

This is the image plus just the blue channel.

○ ·····Subject: (no subject)
Received: Fri 23 Mar 2012 01:48 JST

Ser3-0288 \_\_\_\_\_ CMO No. 397



Here is a mosaic showing the "plumes" on Mars in the blue channel FYI.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120321/JPh21Mar12\_b.jpg

Jim PHILLIPS (Charleston, SC)

### • ····· Subject: Impact plume on Mars? Received: Thu 22 Mar 2012 07:33 JST

Dear Masatsugu: A number of American amateurs have imaged a remarkable feature on Mars during the past two nights (including our esteemed Don Parker) in the form of a remarkable cloud projecting from the morning limb at a high (60 degree?) southern latitude. Remarkably, it has grown in size over the last 24 hours.

As Don Parker and I communicated by telephone less than an hour ago, even orographic clouds on the evening terminator are not this high. Moreover, the feature reflects appreciably in long wavelengths as well as short wavelengths and appears to have a dusty component that is very difficult to reconcile with the location and season.

When I first saw the images thought of the famous 1892 observation by Andrew Ellicott Douglass of a prominent cloud projecting from and deforming the morning limb, as well as the Antoniadi observations of the peculiar greyish clouds that he attributed to volcanic ash. But soon the images of the 1994 SL-9 impact plumes rotating over themorning limb of Jupiter also came to mind. Given the altitude, location, and spectral character of these features, I suspect that they may not have a meteorological origin.

Images by Wayne Jaeschke on the first night can be found at:

http://exosky.net/exosky/?p=1606

Parker's preliminary image from last night is attached. I am struck by the extraordinary altitude of this feature, as well as its apparent detachment from the morning limb.

More news to follow soon.

Warmest regards,

Tom DOBBINS (OH or FL, the USA)

# • ····· Subject: RE: Mars 21 March with unusual cloud Received: Thu 22 Mar 2012 13:27 JST

Hi Don, It might be the real thing. I imaged two side by side brilliant white clouds on 2 Sept 1973 and they weren't near either limb. It looked like a perfect filled-in 'figure eight'. They were as bright as the SPC!! A PHD graduate student at the Washington U Earth and Planetary Sciences department remarked on seeing the images, that it looked like clouds that would be produced from an icy comet impact. I'll put something together for JALPO. Best regards,

**Jim MELKA** (the real ALPO)

#### • ·····Subject: Re: Mars on 22 March Received: Thu 22 Mar 2012 13:30 JST

Hi Don, thanks for your comment. Here the complete images with the separate colour channels...

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120322/SKw22Mar12.png

This night I could use 1/91 sec. Exposure time with the DMK 31AF03.AS. for red and green. The blue one I took with 1/60 sec. This is the first time that I tried so short Exposure times. 2 more sequences are waiting for processing ...

#### Cheers

O ····· Subject: Mars 2012-03-20-01-29-45-ut Received: Thu 22 Mar 2012 22:48 JST

Hi all, here my Mars image from March 20th.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120320/SKw20Mar12.png

#### Cheers

### O ····· Subject: Mars 2012-03-26-00-14-15 UT Received: Tue 27 Mar 2012 02:40 JST

Hi; here my Mars from this morning. Seeing was tricky, very short moments with 6/10, but long times

only 3-4/10. A lot of colour sequences went wrong, but at least I could capture a whole sequence under stable conditions at 4-5/10...

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120326/SKw26Mar12.png

#### Cheers

#### O ..... Subject: Mars 2012-03-26-23-47-38 UT Received: Wed 28 Mar 2012 13:39 JST

Hi all,

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120326/SKw26Mar12.png

here my Mars from Monday evening. Conditions have been average, seeing was stable at 4-5/10. Focussing was a bit easier than the morning before, where I had to wait very long for a stable phase.

3 more sequences after midnight UT wait to be processed... Cheers

**Silvia KOWOLLIK** (Ludwigsburg, GERMANY)

### • ····· Subject: RE: Mars "Wayne's" cloud previous observation on 2012.03.12 Received: Thu 22 Mar 2012 21:06 JST

I suspect this is a rare trick of lighting, not a cloud. I measured the position of the feature in WinJUPOS, and (if I did the measurements correctly) it appears to correspond to the highlands that surround the large Martian craters Newton and Copernicus. Thus the area in question gets sunlight before the surrounding region at only this time of year. Additionally, its appearance is exaggerated due to sharpening; the area of our planetary images most distorted by sharpening is the limb. The trick of lighting also explains its appearance in all wavelengths from near-IR to Blue.

I could be wrong, so feel free to poke holes in my hypothesis.

**Sean WALKER** (Imaging Editor, Sky & Telescope)

# • · · · · · Subject: Re: RE: Mars "Wayne's" cloud previous observation on 2012.03.12 Received: Thu 22 Mar 2012 21:21 JST

I would have a very difficult time accepting lightning as a cause, simply because of the prolonged time of "the event". The atmosphere of Mars simply lacks the density for prolonged activity of this nature;

furthermore, lightning near the polar areas would be far less sustainable over long durations than near the poles in sparse atmospheric conditions. What appears to be expansion of this "plume" also is evident in images over a two-three day period also indicative of scattering of a possible dust debris cloud; separation of the RGB components of some of the fine images thus obtained by other observers who have posted also reveal a reflectivity consistent with the Martian dust, and not that of atmospheric phenomena, which is currently quite active on the planet.

**Dr Clay** (Arkansas Sky Observatories, AZ)

### • · · · · · Subject: Re: Greg Mort and Jon Mort AHCMC Exhibition Invitation Received: Fri 23 Mar 2012 07:43 JST

Hi Masatsugu, It's been a long time! I hope very much to get out and acquire some images of Mars this apparition. I recently moved and had to leave my observatory behind until I find a place to set it up again. Fortunately, business has been very good. Staying up late at night is a real challenge after long hours at work! But with all the exciting Mars images I've seen this year, it will be hard to sleep no matter how exhausted I am. Best,

Ethan ALLEN (Sebastopol, CA)

### • ····· Subject: Mars - March 19, 2012 - average seeing Received: Sat 24 Mar 2012 18:53 JST

Not so great captures, didn't realize that the gamma setting was offset while capturing...

Only took one set, didn't include RGB, Red channel looks to bad.

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120319/FWl19Mar12.jpg$ 

# O ····· Subject: Mars March 21, 2012 Average seeing. Received: Sun 25 Mar 2012 13:00 JST

Weather is parked over this island I guess, rain, clouds and heavy winds. Still trying to get a decent Mars before it's gone. It's nice to see how the IR cuts though the seeing.

 $http://www.hida.kyoto-u.ac.jp/\!\!\sim\!\!cmo/cmons/2011/120321/FWl21Mar12.jpg$ 

#### O·····Subject: 20 Mar 2012- Better seeing conditions Received: Mon 26 Mar 2012 09:57 JST

Got some better then average seeing conditions on March 20, 2012.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120320/FWl20Mar12.jpg

I guess capturing Wayne's Icy Cloud is not for here, no special features, just clouds and haze. The bright cloud (spot) looks like a reflection of the Sun on a Martian Cloud. On the RGB image you can see a layer

of thin haze covering the East side. Also include a Red and IR742 images to compare.

#### O·····Subject: Mars - March 20, 2012 - Animation... Received: Tue 27 Mar 2012 09:14 JST

Had some time on hand and made some Mars animations. Nothing special, Just an animation in RED - IR and Color.

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120320/Mars\_COLOR-Animation.gif
http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120320/Mars\_RED-Animation.gif
http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120320/Mars\_IR-animation.gif
(See also:

http://www.hhida.kyoto-u.ac.jp/~cmo/cmons/2011/120320/FW120Mar12.jpg Ed)

#### Freddy WILLEMS (Waipahu, HI)

#### • ····· Subject: RE: Don Bates Mars Image 03/24/2012 Received: Sat 24 Mar 2012 23:45 JST

Haikei M Minami, M Murakami:

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120324/DBt24Mar12.jpg

Negative observation of the anomaly reported in Sky and Telescope at location 190.5 W; 43.7 S. This image seems to be taken just prior to rotation of anomaly into view, or negative observation. Anomaly not seen on terminator.

250 L, f/27, Toucam pro (no IR)

#### Keigu,

## O·····Subject: Don Bates Mars Image 03/25/2012 - Received: Mon 26 Mar 2012 02:07:09 JST

Hello all,

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

# • ····· Subject: Mars, 2012-03-24 22:52 UT CM 45.4 Received: Sun 25 Mar 2012 21:58 JST

Hi everyone, Having just got back from a long and rather exhausting couple of weeks chasing the Aurora Borealis, it was good to sit down and take in some planetary views once again. The seeing last night was a bit jittery but Registax has, once again, come to the rescue...

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120324/PLw24Mar12.jpg$ 

Best regards,

Pete LAWRENCE (Selsey, WS, the UK)

# • ····· Subject: RE: Re: About the Auroral Protrusion Received: Mon 26 Mar 2012 02:35 JST

Dear Minami-san, I think there is a great deal of consistency between this theory and the observations from the time period.

Attached is a map I created showing the estimated location of the observed cloud, based on my own and Don Parker's images. Please note the location of the observation is only approximate, due to the difficulties of measuring phenomena so close to the limb of the planet, due to sharpening and other factors that can alter the limb during image processing. However, we think this is close and the measurement was provided by Damian Peach of 190.5 degrees by 43.5 degrees south. I note that the location of the observation corresponds to one of the strongest areas of crustal magnetism on Mars!

Further, here is a link to the projected CME path of an M7-class flare emitted by giant sunspot AR1429 on about March 13, possibly suggesting that the "peak" observations noted by Don Parker and myself were the result of the recent, or concurrent passage of a large CME and high solar wind activity that Mars would have been experiencing.

http://iswa.gsfc.nasa.gov/downloads/20120313\_185500\_anim.tim-den.gif If we are lucky enough to have another CME that

will affect Mars in the near-future, perhaps we can provide an observation alert to amateurs and professionals to obtain data and see if we notice a increase in visibility of the phenomena at a time consistent with the passage of a CME or increase in solar wind at the location.

I am very interested to learn more of your theory as well as your analysis of the information I have provided. With best regards,

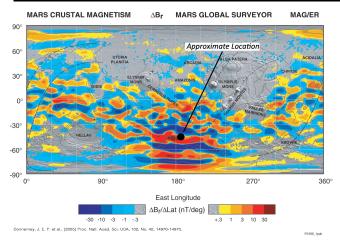
### O·····Subject: RE: Re: About the Auroral Protrusion Received: Wed 28 Mar 2012 07:37 JST

I wanted to bring this to your attention:

 $http://www.esa.int/esaCP/SEMLQ71DU8E\_index\_0.html$ 

This article from the ESA mentions the observation of auroral activity at approximately the same location of my observations of the Mars phenomena -190E and 43S.

25 April 2012



"SPICAM detected light emissions in the southern hemisphere on Mars, during night-time observations in the region corresponding to  $177^{\circ}$  East and  $52^{\circ}$  South. The total size of the emission region is about 30 km across, possibly about 8 km high."

Further, I have mentioned this possibility to a researcher at the Space Science Institute and am hopeful that we can obtain resources from NASA (preferably the Hubble, but that will depend on the availability of other resources) to image Mars at a time when a large CME is going to impact the planet.

I hope you find it helpful. Regards,

# O·····Subject: Re: Another projection in due course? Received: 30 Mar 2012 0115 JST

Mr. Minami, Thank you for forwarding this information. I will certainly follow-up with my colleagues to obtain observations to the extent possible during the passage of the energetic solar particles and let you know our results. I will identify the locations on Earth where observation of the CM where prior images were obtained will be most favorable.

Best regards,

**Wayne JAESCHKE** (West Chester, PA) http://exosky.net/exosky

# • ····· Subject: Mars March 25th 2012 at 05:12 UT Received: Mon 26 Mar 2012 04:23 JST

Hi Masami and Masatsugu

A March 25th image of Mars taken at 05:12 UT from Houston Texas, can be seen at:

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120325/EGf25Mar12.jpg http://www.egrafton.com/03-25-12.jpg

Ed GRAFTON (Houston, TX)

• ..... Subject: Mars Visual Observing Report

#### Received: Mon 26 Mar 2012 10:42 JST

Greetings, I've had a few attempts to observe Mars recently where I had to abort the session because the seeing wasn't good enough for me to clearly see sufficient detail on that little disk. I returned home from a two night star party our astronomy club held in Venus, Florida this weekend. Friday night was a great night for deep sky observing. I sketched Comet Garradd and M95 with its supernova and enjoyed great low power views of galaxies, nebulae and star clusters, including the fabulous Omega Centauri globular. The seeing, however, was so poor that the only feature I could sometimes clearly see on Mars

was the north polar cap. The sky wasn't so transparent on Saturday night, but the seeing was better, despite the windy conditions.

The sky was hazy, with lots of clouds off to the east, west and north, but I was able to observe Mars in a large sucker

OBSERVING NOTES (below and over) Astronomical Society of the Palm Beaches 2 night star party in Venus, FL. Firstnight great for deep sky observing with 6 may transparency but seeing so rough I couldn't visualy observe Mars- serond night hagy and windy, but seeing fair when wind not blowing. Viewed Mars in sucker hole near genith- Couldn't use youx. Acidalia plaine Ansorae/Erythraead areas most prominent dark features. Nilokerasseen. Chryse + Tharsis regions very bright. I could not make out detail in Solis Lacusvery bright Flimb cloud extending into Tharsis region. I could not see enough fine detail to break this large cloud into individual components. Bright limb cloud on NP limb. K= . 979 25 Mar 2012 Size = 13.1"

hole around the zenith. I was able to see coarse detail only during moments when the wind died down and I alternated views at 224x and 311x. I was unable to use my 400x eyepiece and that kept the image scale smaller than I would have liked. To improve the image for scanning into my computer, I made the drawing darker with more contrast than it actually looked in the eyepiece. I think I overdid it in this case and will back off a bit the next time. The separate tonal drawing has been uploaded to the New Images file. This is the most difficult Mars apparition I have experienced. Regards,

 $http://www.hida.kyoto-u.ac.jp/\sim cmo/cmons/2011/120325/JAl25Mar12.jpg$ 

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

• ····· Subject: Mars 25-March-2012 Received: Tue 27 Mar 2012 07:21 JST

Dear Masatsugu,

http://www.hida.kyoto-u.ac.jp/~cmo/cmons/2011/120325/WFl25Mar12.jpg

Attached is a set of images of Mars on March 25th at 04:52 UT. Lots of clouds are showing over Tharsis and Olympus Montes. Chryse is also very bright and appears to be covered with clouds on the terminator.

The clouds and ECB were easily visible when I made some visual observations that night.

I hope we get some more clear skies here. I'm still struggling with the seeing on most nights and I'm anxiously waiting for that one excellent night here before Mars gets too much smaller.

Best wishes,

**Bill FLANAGAN** (Houston, TX)

#### • ····· Subject: Mars March 26th Received: Wed 28 Mar 2012 08:04 JST

Colleagues, Good seeing in the UK last night for

 $http://www.hida.kyoto-u.ac.jp/\sim\!cmo/cmons/2011/120326/MMr26Mar12.jpg$ 

Regards

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

#### • ..... Subject: Protrusion Alert!! Received: Wed 28 Mar 2012 15:01 JST

Dear Masatsugu and all, AR #1429 which now at the rear side of the Sun seems to have emitted a CME on 26 March. See the following animation:

http://iswa.gsfc.nasa.gov/downloads/20120327\_012900\_anim.tim-den.gif

It is possible that the Solar Wind reaches again the planet Mars and for us to encounter with another auroral-like protrusion around 9 ~10 days after (compare with the animation given by Wayne below on 26 March).

With best wishes,

#### O ···· Subject: Expectation Times of the protrusion Received: 29 Mar 2012 22:17 JST

Dear Masatsugu and all, According to the following predicted animated activity of CME on the Sun:

http://iswa.gsfc.nasa.gov/downloads/20120327 012900 anim.tim-den.gif we can derive the following as a Time Table of the expectation when we may catch the projection phenomenon. The CME itself is considered to reach the Mars orbit on around 4 Apr or 5 Apr. Note so that we should be on the watch for the magnetic area of

Electris - Eridania - Ausonia - Hellas region at dawn.

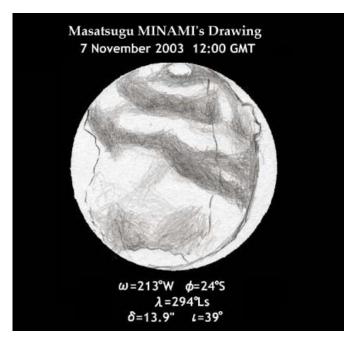
GMT	2 Apr					
10:00	$ω = 136.9^{\circ}$	W	3 Apr			
10:20	$\omega = 141.8^{\circ}$	W				
10:40	$\omega = 146.6^{\circ}$	W	$\omega = 137.7^{\circ}$ W	4 Apr		
11:00	$\omega = 151.5^{\circ}$	W	$\omega = 142.6^{\circ}$ W			
11:20	$\omega = 156.4^{\circ}$	W	$\omega = 147.4^{\circ}$ W	$\omega = 138.5^{\circ}$ W	5 Apr	
11:40	$\omega = 161.3^{\circ}$	W	$\omega = 152.3^{\circ}$ W	$\omega = 143.3^{\circ}$ W		6 Apr
12:00	$\omega$ =166.1°	W	$\omega = 157.2^{\circ}$ W	$\omega = 148.2^{\circ}$ W	$\omega = 139.2^{\circ}$ W	
12:20	$\omega=\!171.0^\circ$	W	$\omega = 162.1^{\circ}$ W	$\omega = 153.1^{\circ} \text{ W}$	$\omega = 144.1^{\circ}$ W	$\omega = 135.1^{\circ} \text{ W}$
12:40	$\omega = 175.9^{\circ}$	W	$\omega = 166.9^{\circ}$ W	$\omega = 158.0^{\circ}$ W	$\omega = 149.0^{\circ}$ W	$\omega = 140.0^{\circ}$ W
13:00	$\omega = 180.8^{\circ}$	W	$\omega = 171.8^{\circ}$ W	$\omega = 162.8^{\circ}$ W	$\omega = 153.8^{\circ}$ W	$\omega = 144.8^{\circ}$ W
13:20	$\omega = 185.6^{\circ}$	W	$\omega = 176.7^{\circ}$ W	$\omega = 167.7^{\circ}$ W	$\omega = 158.7^{\circ}$ W	$\omega = 150.0^{\circ}$ W
13:40	$\omega$ =190.5°	W	$\omega = 181.6^{\circ}$ W	$\omega = 172.6^{\circ}$ W	$\omega = 163.6^{\circ}$ W	$\omega = 154.6^{\circ}$ W
14:00	$\omega = 195.4^{\circ}$	W	$\omega = 186.4^{\circ}$ W	$\omega = 177.5^{\circ}$ W	$\omega = 168.5^{\circ}$ W	$\omega = 159.5^{\circ}$ W
14:20	$\omega$ =200.3 $^{\circ}$	W	$\omega = 191.3^{\circ}$ W	$\omega = 182.3^{\circ}$ W	$\omega = 173.3^{\circ}$ W	$\omega = 164.3^{\circ}$ W
14:40	$\omega$ =205.1°	W	$\omega = 196.2^{\circ}$ W	$\omega = 187.2^{\circ}$ W	$\omega = 178.2^{\circ}$ W	$\omega = 169.2^{\circ}$ W
15:00	$\omega$ =210.0 $^{\circ}$	W	$\omega = 201.1^{\circ}$ W	$\omega = 192.1^{\circ}$ W	$\omega = 183.1^{\circ}$ W	$\omega = 174.1^{\circ} \text{ W}$
15:20	$\omega$ =214.9 $^{\circ}$	W	$\omega = 205.9^{\circ}$ W	$\omega = 197.0^{\circ}$ W	$\omega = 188.0^{\circ}$ W	$\omega = 179.0^{\circ} \text{ W}$
15:40	$\omega$ =219.8 $^{\circ}$	W	$\omega = 210.8^{\circ}$ W	$\omega = 201.8^{\circ}$ W	$\omega = 192.8^{\circ}$ W	$\omega = 183.8^{\circ}$ W
16:00	$\omega$ =224.6 $^{\circ}$	W	$\omega = 215.7^{\circ}$ W	$\omega = 206.7^{\circ}$ W	$\omega = 197.7^{\circ}$ W	$\omega = 188.7^{\circ}$ W
16:20			$\omega = 220.6^{\circ}$ W	$\omega = 211.6^{\circ}$ W	$\omega = 202.6^{\circ}$ W	$\omega = 193.6^{\circ}$ W
16:40			$\omega = 225.4^{\circ}$ W	$\omega = 216.5^{\circ}$ W	$\omega = 207.5^{\circ}$ W	$\omega = 198.5^{\circ}$ W
17:00				$\omega = 221.3^{\circ}$ W	$\omega = 212.3^{\circ}$ W	$\omega = 203.3^{\circ}$ W
17:20				$\omega = 226.2^{\circ}$ W	$\omega = 217.2^{\circ}$ W	$\omega = 208.2^{\circ}$ W
17:40					$\omega = 222.1^{\circ}$ W	$\omega = 213.1^{\circ}$ W
18:00					$\omega = 227.0^{\circ}$ W	$\omega = 218.0^{\circ}$ W
18:20						$\omega = 222.8^{\circ}$ W
18:40						

NB. The observations including those in 2003 were carried out as follows:

Wayne J	20 Mar 2012	ω=147°W
wayne J	20 Mai 2012	W−147 VV
Don P	21 Mar 2012	ω=146°W
Jim Ph	21 Mar 2012	ω=153°W
Masatsugu Mn	. 04 Nov 2003	ω=203°W
Masatsugu Mn	. 07 Nov 2003	ω=203°W
Yukio Mo	. 07 Nov 2003	ω=211°W
Isao My	. 08 Nov 2003	ω=168°W~209°W

The following are some of the recent associated pictures and old picture and drawing:







Refer also to

"37thCOSPAR Scientific Assembly B02-0038-08 A protrusion from the terminator of the Mars observed on November 4, 2003"

Best Regards

Masami MURAKAMI (Fujisawa, JAPAN)

#### • ····· Subject: Re: Mars 27 March Received: Wed 28 Mar 2012 23:36 JST

Except for a few floaters and retina blemishes my eyes are operating great, or as deigned. The right eye is still a little fuzzy but it seems to be clearing up as time flies by. Last night while observing Mars I put in a 10-mm EP in my focuser (with a 3× built in Barlow) and 1" extension giving 940×. Seeing was okay with that, so I used an 8-mm for 1180× and the extra globs on my retina got in the way creating some artifacts, often seen on CCD/webcam images, so I

backed off. So, my maximum magnification will be 940×; however, 780× is just right for seeing from 6 to 10. I only used the 8-mm so to se mere detail in the NPC but the wind started interfering so I forgot that idea.

After observing Mars using setting circles I pointed the 16" over at comet "Garradd" and by a stroke of luck it was in the field of a 26-mm EP that rendering it at 311×. Wow, am I good or what? Anyway, after putting in an old Lumicon Deep Sky filter in the 35-mm EP the comet came in with a little more field. Using color filters I determined where the dust and

Using color filters I determined where the dust and gas tails were. Neat comet looks like a fluffy ball cut by a wide 'V" tail(s). Bugs went to sleep so a light breeze made observing grandeur oculus pro oculo.

Glad old Parker talked me into going back to observing in real telescopes instead of virtual ones.

#### O ····· Subject: Re: Cloudy Mars 28 March Received: Thu 29 Mar 2012 03:33 JST

I knew there was a cloud in Chryse and your image confirms it. A stiff breeze blew up and spoiled my view, so I just called a dull cloud or something. I thought a small cloud was west of the NPC also, and your image has that as well. You must have observed on top of the mountain instead in the valley with improved seeing, huh?

#### O·····Subject: Re: Cloudy Mars 28 March Received: Thu 29 Mar 2012 04:23 JST

Let's see; cold air drops onto warm air -- is that what you're saying? :)

That's why I selected a place very close to a huge lake and in Florida were the air is clear, clean and steady. Of course, hitting the Latoo helps 8-)

**Jeff BEISH** (We The People)

#### • ···· Subject: Re: Mars 26-March-2012 Received: 31 Mars 2012 23:09 JST

Hi Dave and Guys, Thanks for your Mars image.

Here a Mars image from 27/3

 $http://www.hida.kyoto-u.ac.jp/\sim\!cmo/cmons/2011/120326/RBs26Mar12.jpg$ 

Regards

#### Richard BOSMAN (Enschede, the NETHERLANDS)

Met vriendelijke groet http://www.astrofotografie.n



# TEN YEARS AGO (204)

---- CMO #259 (25 April 2002) pp3299~3326 ----

http://www.hida.kyoto-u.ac.jp/~cmo/cmomn1/cmo259/index.htm

Report this month is  $22^{nd}$  this season and treated from the latter half of March to the first half of April 2002. The  $\delta$  was from 4.6" down to 4.2" The season  $\lambda$  was from 343°Ls to 358°Ls. The tilt  $\phi$  was from 18°S to 11°S and the phase angle  $\iota$  was 28° to 22°. Observations were 66 domestically, and 6 from abroad. CMO Note (5) was entitled "Elysium Planitia Dust Clouded at the Beginning of July 2001"

LtE were sent from Jeffery BEISH (FL), Damian PEACH (the UK), Clay SHERROD (AR), Ed GRAFTON (TX), Tom DOBBINS (OH), Sam WHITBY (VA), Don PARKER (FL), Bill SHEEHAN (MN) and others. Domestically we received from T KUMAMORI, T AKUTSU, H ISHADOH, Y MORITA and others.

As a column entitled "Jeff BEISH in Yokohama", MINAMI described a detail when we met J BEISH in Yokohama on 24 March 2002. BEISH's family (his wife, their son's family) and from our side Morimasa NAKAJIMA, Tsutomu ISHIBASHI, Hitomi TSUNEMACHI, Noriaki NISHITA and Mn and Mk joined. BEISH gave a lecture on the singularity of the coming Mars apparition in 2003 (nearest after 57537 years!).

TSUNEMACHI's 18<sup>th</sup> Antares corner is concerned with the Yuzuri-ha (Daphniphyllum macropodum) whose Japanese meaning is to change the leaves themselves from the dead ones to new leaves or the old gives a way to the new. The evergreen trees do this change in the early summer. TSUNEMACH considered this change and the death of individuals. Plants in general take a longer time to die than the animals. It is difficult to judge which is superior in the end as a final form of the evolution.

TYA#080 was written by Mn because the subject treated is concerned with Mk's note in CMO#116 (25 April 1992) where a photo of Mars in 1988 was used as the 1988 CMO Observation Note (18): Each of this photo was real. Mk printed this more than 100 taking several nights, and they were pasted at in the hospital where Mn's mother was confined.

The column Click CMO  $\longleftrightarrow$  CMO Clicks (18) treated a large sand storm aroused at the Eastern North district of the China continent. Its effect also reached Japan, and also arrived at the NW district of the US after one week. See the following interesting sites:

http://www.hida.kyoto-u.ac.jp/~cmo/cmo/click/cl18/cl18.html (Mk & Mn)

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Bulletin: เพื่ออา๋+โรบิธาทัก เดิเนื่อ (http://www.mars.dti.ne.jp/~cmo/ISMO.html)

CMO #397/ ISMO #23 (25 April 2012)

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



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