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2013/2014 Mars Observations during the First Half of April 2014

♂・・・・・In April, the planet Mars was at opposition and closest to the Earth in earnest inside the Vir constellation. This report counts the eighth this season, and we will deal with the observations made during the half-month period from 1 April to 15 April. According to Jean MEEUS, the planet was at opposition on 8 April at 21 hrs GMT and was closest to the Earth on 14 April at 13 hrs. The maximal apparent diameter was δ=15.16". During the period, the Martian season proceeded from λ=110°Ls to λ=117°Ls, namely at the northern summer season. The apparent diameter increased from δ=14.7" and kept δ=15.2" even on 15 April. The phase angle decreased from ι=07° to ι=02°, and recovered to ι=06° on 15 April. The central latitude or tilt was ϕ=21°N~22°N, namely the northern hemisphere much faced to the Earth.

♂・・・・・ During the period we received with thanks a total of 206 observations from 35 observers: Domestically we received 70 observations from 7 members, and 6 observers in Australia contributed 45 observations, 13 European observers did 59 observations, 8 observers in the American continents sent us 30 observations, and one observer in Iran reported 2 observations. The following is a list of the contributed observers with the apparatus used. We would like to express our gratitude to all observers for their kind contributions.

AERTS, Leo *(LAt)* BELGIUM
2 *Colour* Images (5, 10 April 2014) 36cm SCT with a DMK21AU618

ARDITTI, David *(DAr)* Stag Lane, Edgware, Middx, the UK
3 *Colour* Images (14, 15, 15n April 2014) 36cm SCT with a Flea 3

BATES, Donald R *(DBt)* Houston, TX, the USA
1 Set of *RGB* Images (12 April 2014) 25cm Spec with an ASI 120MM

BOSMAN, Richard *(RBs)* Enschede, the NETHERLANDS
2 Sets of *RGB* Images (1, 5 April 2014) 36cm SCT with a Bsaler Ace

BUDA, Stefan *(SBd)* Melbourne, AUSTRALIA
3 Sets of *RGB* Images (6, 13, 14 April 2014) 40cm Dall-Kirkham with a DMK21AU04

CURCIC, Bratislav *(BCr)* Melbourne, AUSTRALIA
7 Sets of *RGB* Images (5, 6, 13, 14 April 2014) 28cm SCT with a QHY5L-II

DUPONT, Xavier (*XDp*) Saint-Roch, France

5 Sets of *RGB* + 2 *Colour* Images (1, 5, 9, 10, 14 April 2014) 18cm Spec with an i-NOVA PLA C+

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

3 *Colour* Images (8, 15 April 2014) 28cm SCT with a DMK21/618

GHOMIZADEH, Sadegh (*SGh*) Roudehen, IRAN

2 *Colour* Images (7, 12 April 2014) 36cm SCT with a DMK21AU04.AS

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

5 Sets of *RGB* + 5 *IR* Images (1,~3, 6, 10 April 2014) 36cm SCT with an ASI 120MM

ISHIBASHI, Tsutom *(Is)* Sagamihara, Kanagawa, JAPAN

11 *Colour* Images (1, 7, 8, 14 April 2014) 31cm Spec with a SONY HC9 VideoCam

JUSTICE, Mark *(MJs)* Melbourne, AUSTRALIA

13 Sets of *RGB* Images (13,~15 April 2014) 30cm Spec with a DMK21AU618

KARDASIS, Manos *(MKd)* Glyfada-Athens, GREECE

2 Sets of *RGB* + 3 *Colour* Images (2, 6, 8, 12, 14 April 2014) 28cm SCT with a DMK21AU618

KAZANAS, John *(JKz)* Melbourne, AUSTRALIA

1 *Colour* Image (5 April 2014) 32cm Spec with an ASI 120MM

KONNAÏ, Reiichi *(Kn)* Ishikawa, Fukushima, JAPAN

12 *Colour* Drawings (1, 7,~9, 13, 14 April 2014) 30cm SCT, 600×, 500×

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

9 *LRGB* + 9 *B* Images (1, 4, 7,~9, 11, 12, 14, 15 April 2014)
28cm SCT @ *f*/45 with an ASI 120MC & Basler Ace acA1300-30gm

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

2 *Colour* Images (9, 15 April 2014) 45cm Spec with an ASI 120MC

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

9 *Colour* Images (6, 10 April 2014) 25cm SCT with a ToUcam Pro II

MINAMI, Masatsugu (*Mn*) Sakai, Fukui, JAPAN

9 Drawings (8, 14 April 2014) 400×20cm ED refractor* Fukui City Observatory*

MORALES RIVERA, Efrain (*EMr*) Aguadilla, PUERTO RICO

5 Sets of *RGB* Images (1, 9, 12, 14, 15 April 2014) 31cm SCT with a Flea 3

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

15 Sets of *RGB* + 15 *LRGB Colour* + 15 *L* Images (1, 2, 4, 7,~10 April 2014) 36cm SCT with a Flea 3

MURAKAMI, Masami (*Mk*) Yokohama, Kanagawa, JAPAN

5 Drawings (8, 9 April 2014) 320×20cm Spec

NISHITA, Akinori (*Ns*) Awara, Fukui, JAPAN

9 Sets of *RGB* Images (8, 14 April 2014)
20cm ED refractor* with a DMK21AU618.AS Fukui City Observatory*

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

1 Set of *RGB* Images (2 April 2014) 36cm SCT @*f*/24 with an ASI 120MM

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

2 Sets of Images (14, 15 April 2014) (36cm SCT with a SKYnyx 2-0M?)

PELLIER, Christophe *(CPl)* Nantes, FRANCE

8 Sets of *RGB* + 1 *R* + 2 *IR* Images (7/8, 8/9, 13/14 April 2014) 25cm Spec with a PLA-Mx

POUPEAU, Jean-Jacques *(JPp)* Essonne, FRANCE
1 *RGBColour* + 1 *R* + 1 *B* Images (9 April 2014) 35cm Cassegrain @*f*/29 with a Basler acA640-100gm

SÁNCHEZ, Jesús R *(JSc)* Córdoba, SPAIN
2 *RGBColour* Images (6, 15 April 2014) 28cm SCT with a Basler acA1300-30gm

SMET, Kris *(KSm)* Bornem, BELGIUM
2 Drawings (9, 15 April 2014) 30cm spec, 210× 220× 290×

SUSSENBACH, John S *(JSb)* Houten, the NETHERLANDS
2 Sets of *RGB* + 1 *Colour* Images (1, 6, 12 April 2014) 28cm SCT @*f*/20, 25, 30 with a QHY5L-II and Flea 3

TRIANA, Charles *(CTr)* Bogota, COLOMBIA
3 *Colour* Images (13 April 2014) 25cm SCT @*f*/28 with an ASI 120MM

TYLER, David *(DTy)* Flackwell Heath, Buckinghamshire, the UK
16 *Colour* Images (4, 7, 8, 11, 14, 15 April 2014) 36cm SCT with a Flea 3

VALIMBERTI, Maurice *(MVl)* Melbourne, AUSTRALIA
20 Sets of *RGB* + 17 *IR* Images (5, 13,~15 April 2014) 36cm SCT @*f*/24 with an ASI 120MM

WESLEY, Anthony *(AWs)* Murrumbateman, NSW, AUSTRALIA
8 *Colour* Images (2, 4, 8, 10, 11, 14 April 2014) (37cm spec) with a Point Gray Grasshopper3

WELDRAKE, David *(DWr)* Bungendore, NSW, AUSTRALIA
1 Set of *LRGB* + *1 L* Images (2 April 2014) 13cm refractor @*f*/70 with an ASI 130MM

WILLEMS, Freddy *(FWl)* Saint Johns, FL, the USA
2 Sets of *RGB* + 2 *IR* Images (1, 3 April 2014) 36cm SCT with a DMK21AU618.AS

♂·····We shall here try to give a simple review to each observation chronologically. The observer's name will be abbreviated to the code symbol whose family name will be found however when he first appears in this column. The code name is familiar to us, but otherwise the observer's list above should be helpful.

1 April 2014 2014 (λ=110°~111°Ls):

Xavier DUPONT (*XDp*) gives a set of images at ω=165°W, where the Tharsis orographic is near the evening terminator, and a bit separated from it the cloud associated with Olympus Mons is evident. It looks to be located at the western flank of the mountain. Elysium must be inside following the morning mist. Propontis I is visible together with a blurred aspect of Phlegra. Olympia is seen to the WS of the north polar cap (npc).

Efrain MORALES (*EMr*)'s image set shows the surface seen at ω=205°W, where the cloud of Olympus Mons is very whitish, quite near the evening terminator. Elysium is located before the CM, while a white cloud is seen associated with Elysium Mons, whose summit is visible as a bright tiny spot in R and G. The morning mist is strong. Syrtis Mj is not seen yet, but N Alcyonius is visible outside the morning mist. Olympia lies to the south of the npc. On the southern hemisphere, M Cimmerium is wholly visible with two spikes downward like ant's legs.

Freddy WHILEMS (*FWl*)'s RGB image at ω=207°W looks blurred, while Elysium near the CM shows clearly the difference of bright colours inside Elysium: That is, the colour of the cloud matter is whitish, while a boundary segment which is adjacent to the Ætheria dark patch is pinkish. Note that a

mist band starts from the inside of Elysium and goes to the morning thick mist.

Peter GORCZYNSKI (*PGc*) shot at ω=230°W: Syrtis Mj is apparent with a slightly dark-bluish tint. The white cloud inside Elysium has a core which sends out a mist band to Syrtis Mj. The RGB image lacks a sharpness, but the details are well shown on the IR742 image at ω=233°W.

Teruaki KUMAMORI (*Km*)'s L+ colour image looks slightly over processed, but gives a description of every important point. The evening mist goes down obliquely to the evening Syrtis Mj (vivid in B which was shot differently), and the Huygens crater is rather evident, while M Serpentis is quite weak. At the morning side, the rhs of Aryn's nails suggests another fork. Oxia P is shown to have a good shape. The npc shows another branch under Chasma Boreale. The morning mist is thick.

Tsutomu ISHIBASHI (*Is*)'s images are made from Video images. They run at ω=335°W, 345°W, 335°W, but show little except for some main markings.

Reiichi KONNAÏ (*Kn*) gave a colour drawing at ω=340°W. Hellas is clearly shown to be whitish bright at the evening terminator, while such other dark markings as S Sabæus look to be fainter to *Kn* because of the seeing condition. The evening mist has been pressed by Syrtis Mj to the narrow area near the terminator, while it trampled over the northern Syrtis Mj to the desert region.

Yukio MORITA (*Mo*)'s set is made at ω=348°W of the images in LRGB, RGB, R, G, B, and L as usual. The R and L images bear the details. The rhs of Aryn's nails is forked. The morning Brangæna and Oxia P are described to be good looking. The relation of the evening mist and Syrtis Mj is well shown in G, and it is beautiful in RGB. Hellas shows the white colour as well in RGB and LRGB. The npc area which suggests Chasma Boreale is similar in both composites.

John SUSSENBACH (*JSb*) from the Netherlands gives a couple of sets of R, G, B and RGB images at ω=107°W and at ω=113°W. Since the phase angle read only ι=6°, it was expected for an opposition effect of Olympus Mons to occur. Really in the R image of ω=113°W, a ring structure of Olympus Mons proves to appear definitely, and hence this is the first image which shows the opposition effect this apparition. However the present season is not most appropriate to see the case and in fact the G image proves a misty matter at the western mountain side as well as at the western flank of Ascræus Mons. So the timing is a great factor in this season. Both images also report some details of Solis L, Tithonius L, the nippers of Nilokeras et al. Chasma Boreale is also caught as a rift from the south direction, and the rising Olympia with the preceding ice-shards gives a good impression at the western side of the npc (especially on the images at ω=113°W).

Richard BOSMAN (*RBs*), also from the Netherlands, gives a set at ω=121°W, where however it has been difficult to see the opposition effect on the RGB image, though the R image shows a ring structure, because the western flank cloud is already thicker. The cloud at Ascræus Mons is much brighter. The white evening cloud to the north of Tithonius L is also quite clearly described. The dark markings as a whole do not look sharper, while the dust activity at Chasma Boreale looks attractive, and several ice-shards preceding Olympia are visible.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/XDp01Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/EMr01Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/FWl01Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/PGc01Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/Km01Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/Is01Apr14.jpg

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/Kn01Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/Mo01Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/JSb01Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/RBs01Apr14.jpg

2 April 2014 2014 (λ=111°Ls):

Donald PARKER (*DPk*)'s image set was produced at ω=187°W. At the evening side, the white cloud at the Tharsis ridges is seen at the terminator, and, separated from it, the white cloud associated with Olympus Mons is thickly visible covering the western mountainside of Mons. Elysium is located considerably on the morning side: Elysium Mons is visible as a small white spot, and from Elysium there originates a broad misty band and jumps across the Ætheria dark patch to join the morning mist. The description of the dark markings is modest, and hence the ant's legs of M Cimmerium are quite blurred, while ant's eye (Herschel crater) is evident. Propontis I is near the CM, but looks mild. Olympia appears rough while Rima Borealis looks misty.

PGc's image set is given at ω=223°W: Syrtis Mj is already on the disk with a dark-bluish tint. Inside Elysium near the CM, the colour difference between the cloud and the ground-lit pinkish segment is a bit seen. Olympia is too blurred.

David WELDRAKE (*DWd*) uses Takahashi's TOA 13cm refractor. This set is taken at ω=282°W where Syrtis Mj and Hellas are near the CM. However no minute details are found. Just G and B images show the mist band from Elysium to the area of Syrtis Mj: Elysium is whitish bright at the evening terminator.

Anthony WESLEY (*AWs*) puts side by side three excellent Martian colour images at ω=334°W, 338°W, 343°W. At first sight, the images look too misty, while all the three show quite a detail. Hellas, located quite near the evening terminator, shows a detail at the inside. S Sabæus just looks made of small dots. The npc also shows a detail which may make us want to draw a top view. The way of the evening mist band to invade the northern part of Syrtis Mj is well described. Syrtis Mj is rather near the terminator, while it shows a detail of the northern end. The image at ω=338°W well show the Huygens crater as well as the Schröter crater. This observer does not describe his instrument, but if it's the same that he used when he found a Jovian scar in 2009, it's maybe a 37cm speculum.

Mo's observations were made at ω=349°W, 354°W each of which is above average. Syrtis Mj drives the evening mist to the evening terminator while it receives the broad and thick mist band over its northern part obliquely. The rhs of Aryn's nails is blurred. A branch of the npc looks interestingly to be standing upright. The dark markings on the R image at ω=354°W are described to be steady, showing the "bridge" (shown by *CPl* on the occasion of his expedition to Pic du Midi) at the light streak adjacent to the eastern border of M Acidalium.

Manos KARDASIS (*MKd*) made one colour image at ω=082°W. The area of Olympus Mons is loosely pinned down, and the bright cloud is visible at the western flank of Ascræus Mons together with a vast remnant of the Ascræus cloud. At its north there are some areas without mists, but Alba Patera with a thin cloud is identified. As dark markings, Solis L is well seen as well as Tithonius L. Some elements of Auroræ S are checked. It looks Ophir-Candor shows a misty covering, originated from Chryse which is quite misty due to the evening mist from the terminator. The npc is complex in shape and density.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140402/DPk02Apr14.jpg

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140402/PGc02Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140402/DWr02Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140402/AWs02Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140402/Mo02Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140402/MKd02Apr14.jpg

3 April 2014 (λ=111°Ls):

FWl's set of images was made at ω=182°W. The cotton-ball-like cloud at Olympus Mons and the terminator cloud at the Tharsis ridges are well shown. The morning Elysium shows a weak mist inside, which is connected with the thick morning mist. The R component looks good and the associated IR742 image shows quite a detail.

PGc's image set was made at the same ω=182°W. The northern part of the inside of Elysium shows a bit pinkish tint. An IR742 image shows some details.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140403/FWl03Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140403/PGc03Apr14.jpg

4 April 2014 (λ=111°~112°Ls):

Km took a set at ω=317°W, where the evening Hellas is bright, and looks convex in B. The evening mist is not so strong, but goes to the desert region after stepping over Syrtis Mj.

AWs shows a detailed image at ω=319°W where the perimeter of Hellas is quite clear with a fine structure (Reiichi KONNAÏ pointed out in his LtE on 6 April 2014 that this *AWs* image showed an emergence of the ice sheet on Hellas). The description of the Huygens crater (as well as the Schröter crater) is one of the best images taken this apparition. The northern end of Syrtis Mj is also shown clearly. The resolution of S Sabæus and S Meridiani is awful. The npc looks also detailed. This image is quite superb, whereas the first sight gives an impression of a misty surface without showing any stuck-up. The evening mist is also not described so excessively thick, but we can see the mist band curves down to the northern part of Syrtis Mj. We would like to see as well the B ingredient.

Mo's set of images follows which was made at ω=324°W. We suppose the seeing condition was poor, but the aspect where the evening mist band curved up and then down to the northern part of Syrtis Mj is well described. On the other hand, the perimeter of Hellas looks here quite blurred (different to the preceding *AWs* image), and hence we should be careful.

Dave TYLER (*DTy*) enters the stage. *DTy* here shows a series of colour images at ω=083°W, 087°W, 091°W: At ω=083°W, there shines extraordinarily a small bright spot from somewhere of the Tharsis ridge. Juventæ Fons is visible isolated. A cloud band exists to the north of Solis L. At ω=087°W the area of Solis L is detailed, and the area of Aurea Cherso is well described. The Ascræus cloud exists until ω=087°W. The area of Olympus Mons is roundish with a wine-colour or brownish tint. Any of the npc shows an interesting disturbance at the inlet of Chasma Boreale.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140404/Km04Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140404/AWs04Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140404/Mo04Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140404/DTy04Apr14.jpg

5 April 2014 (λ=112°Ls):

XDp made two colour images at ω=133°W, 150°W: The former may aim at the cloud associated with

Olympus Mons which is however not so bright. On the latter image, the cloud looks a bit brighter and shows its existence at the western flank. At the preceding region, Tharsis cloud and the cloud at Xanthe are visible. On the morning side, Propontis I is seen as a dark spot. The dark marking near the southern limb must be M Sirenum.

Bratislav CURCIC (*BCr*) observed at ω=290°W. The npc shows an interesting shape. Olympia is just going to sink at the eastern side of the npc. The npc is of the good shape also in G. Hellas is near the CM, and dull in R while bright in B. The inside of Hellas in RGB shows a detailed nuance. Elysium is whitish bright near the evening terminator and send upward a broad mist band which goes down to Syrtis Mj. The inside of Syrtis Mj is detailed.

Maurice VALIMBERTI (*MVl*) put forward an exertional series of 8 sets of images at ω=293°W, 296°W, 303°W, 306°W, 315°W, 319°W, 325°W and 329°W. Thus the series gives a width of 36°W. Hellas is near the CM, but the perimeter becomes clearer around from ω=315°W perhaps due to an improvement of the seeing. Hellas is rather approaching the terminator, while the description of the inner structure turns out better. There is a brownish slit near the western border of Hellas. The western perimeter must be an observation point. The npc looks also interesting, and we expect further observations of the area. Generally, Syrtis Mj (including the Huygens crater), the inside of S Sabæus, S Meridiani (including the fork of G P KUIPER) and so on are nicely shown. However, perhaps due to a weakness of the water vapour, the evening mist to Syrtis Mj is never conspicuous. The artefact arc at the morning limb should be hidden.

John KAZANAS (*JKz*)'s work was made at ω=324°W, angle included in the *MVl* series. This is a single colour image above average, composed from IR, G, and B: The western part of Hellas looks suggestive. As to the evening mist, we want to see the B image.

RBs worked at ω=091°W: The RGB image is pretty good. Details are found concerning the afternoon Solis L, Tithonius L, the area of Auroræ S, Nilokeras' nippers et al. As well, Aurea Cherso is visible. The western side of Ascræus Mons is hoarding a white cloud and there is seen a remnant of the Ascræus cloud (compared with *DTy*'s work on the preceding day, this is about 10°W later). Olympus Mons shows a light ring together with a dark summit inside a roundish area, and hence we believe this is another proof of the opposition effect of Olympus Mons. The phase angle reads ι=3°. This ring is also apparent on R, while on G and B, Olympus Mons is barely seen though on G and B the Ascræus cloud is checked. In RGB, the southern part of the evening M Acidalium is weak. Hyperboreus L is dark even in the evening and the npc shows some details including the rift area.

Leo AERTS (*LAt*) observed at ω=096°W. Two colour images which were differently processed, are put side by side: The lhs image must be processed to stress on the vast spread of the mist. Those markings as Solis L are displayed in a bit high contrast. Due to this procedure, the area of Aonius S is definitely detailed. The distribution of mists is easy to check here. It is easy also here to see that the southern part of M Acidalium will sink covered by the evening mist (also the western part of M Acidalium). The golden ring of Olympus Mons is visible on the morning side, may be a third example of the opposition effect of Olympus Mons. The Ascræus cloud weakly exists. The npc is well described. The rhs image is also excellent, just different in the contrast of dark spots than the lhs image.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140405/XDp05Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140405/BCr05Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140405/MVl05Apr14.jpg

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140405/JKz05Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140405/RBs05Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140405/LAt05Apr14.jpg

6 April 2014 (λ=112°~113°Ls, δ=15")

JSb's set of image is given at ω=097°W. The RGB image can be compared with *RBs*'s and *LAt*'s images on the preceding day. On the evening side we can similarly check Solis L, Tithonius L, Auroræ S, Nilokeras' nippers et al, but these are milder here. Note the aspect of Aurea Cherso. The procedure to treat of the terminator seems to admit an artefact ghost (originated from R). The morning Olympus Mons is seen as a golden ring, and hence this is due to the opposition effect. On R and G, a streak is visible rising from the western core of the npc to the MW direction, though obscure in R.

Frank MELILLO (*FMl*) worked for about two hrs and obtained a series of colour images at ω=156°W, 163°W, 170°W, 178°W, 187°W. The evening terminator which is now concerned with the final place the Tharsis ridges lie is very whitish, while at least on the first two images, Olympus Mons is not white any more, and looks pinkish light similar to the ground. The light and shade region to the NW direction looks interesting. The last two images bring an impression that Olympus Mons is a bit whitish. Propontis I which is related with Phlegra is dark on every image. On the last two images, Elysium is inside the disk, and the northern part of Ætheria dark patch is shown dark. Elysium is not so light, but similarly light is the outside of Phlegra, and hence the both sides of Propontis I look to be surrounded by a light belt. Cebrenia is not so light.

PGc took an image set at ω=161°W (IR742 image at ω=163°W) which is comparable with the second image of *FMl* above. Due to a difference of the aperture, Olympus Mons here is still covered by a whitish weak cloud at the western flank (the summit is here bare). Olympus Mons appears on the IR image as a golden ring. We may be allowed to consider that the Sun-light may reflected back because the IR longer wave light may penetrate the thin cloud at this season. Still, ι=3°. The cloud associated with Ascræus Mons is much whiter and thicker. This cloud is separated with the cloud of Pavonis Mons. To the north, Alba Patera is a bit whitish visible. Propontis I shows a fine detail (see also the IR image). Phlegra and the northern part of the Ætheria dark patch are seen. Elysium is completely inside the disk, but not so light. Olympia is evident. Near the southern limb, the junction of M Sirenum and M Cimmerium is apparent.

BCr obtained two sets at ω=287°W, 302°W: In RGB, both show Hellas to be bluish white. Elysium near the evening terminator also has a tint of bluish white. But the core of the npc is white. The dark markings are generally dark brownish, and the northern part of Syrtis Mj is never bluish. However we can detect a broad band of white mist rising from Elysium and going to Syrtis Mj. We additionally note that at ω=287°W, the inside of Elysium looks three dimensional even near the terminator.

Stefan BUDA (*SBd*) observed at ω=303°W and produced a stable nice image set. The inside of Hellas is well described at the place where the white-brightness decreases. The western border of Hellas is definitely shown. The areas of Syrtis Mj (including Huygens and Schröter) and S Sabæus (the northern coast of the eastern part) and so on are quite detailed. S Meridiani is already inside the disk, and Aryn's nails are visible. On B, the mist rising from Elysium is well shown, while the broad band of mist might have been weaker, not to say disappeared. The shape of the npc is attracting, and the aspect of Olympia which now sinking is interesting.

MKd issued a single colour image at ω=052°W. The markings do not necessarily show sharpness,

and the colour does not look best. However this is an excellent image in the sense that it details almost all important markings as they should. S Meridiani is very near the terminator, while the nails are apparent, and the pair of both perimeters of the northern part of Margaritifer S appears just like a beak of a bird as often seen hitherto classically. Furthermore, several minor markings are well shown from Eos (+Electra and Orestes) through Auroræ S up to the west end of Tithonius L, whose west is already the morning mist. Solis L is not perfect, but the area of Aurea Cherso is complete. The description of light and shade of the area of M Erythræum is good enough at present. The poking out of the brownish summits of Ascræus and Pavonis Montes is as usual. Olympus Mons looks to have come in. On the northern hemisphere, M Acidalium is well described with a densely dark NW corner. Nilokeras is OK, and Hyperboreus L is quite dark. The npc shows a disturbance at the inlet of Chasma Boreale. It is suggested Olympia will soon come up. To the north of Thymiamata a localised mist patch exists. Note also a white mist patch at the southern limb.

Jesús SÁNCHEZ (*JSc*)'s observation was made at ω=083°W: The file is made of two images: one uses an orange colour for the Martian ground and the other is a bit bluish featuring an expansion of the white mist. We should say the markings of smaller dots are detailed, though some small markings are blurred and some grounds are levelled (especially on the latter case). Inside the morning mist the area of Olympus Mons is identified, as on the RGB image of *DTy* on 4 April 2014 2014 (λ=112°Ls) at ω=083°W. We should keep in mind the npc that shows a nicely complex structure.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140406/JSb06Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140406/FMl06Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140406/PGc06Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140406/BCr06Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140406/SBd06Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140406/MKd06Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140406/JSc06Apr14.jpg

7 April 2014 (λ=113°Ls)

Teruaki Km made a shoot at ω=282°W where Syrtis Mj is near the CM. The evening broad mist band starts from the white Elysium which is now located at the evening terminator. However this band is not so conspicuous in the L+colour image or in B. Syrtis Mj shows up however in a dark blue. We should say Hellas' white covering looks a bit bluish.

Reiichi Kn produced two colour drawings at ω=290°W, 300°W: On the former disk, S Meridiani is outside the disk, while the latter shows S Meridiani inside the disk. So-called darkest marking of Syrtis Mj is faintly depicted, though its shape is definite. Casius is caught. We should say Hellas does not show up so brightly but rather dull. Elysium is at the evening terminator and it sends out a faint mist band to the north part of Syrtis Mj. The area of the npc is whitish, but captured with details. Olympia is at the east of the npc. Part of Observing Notes is shown in ⊔tE of #422 Web received on 13 April 2014 2014 at 00:02 JST.

Is's two images from his Video observations at ω=298°W, 307°W. As a whole, the markings are brownish. Even Hellas is not whitish. On the latter image, S Meridiani is caught near the following limb. Elysium is not explicitly seen, but its mist looks to run into Syrtis Mj. Æria is a bit light. The npc is enclosed by a dark band, and Olympia is a bit seen.

Mo gives a couple of sets of images at ω=304°W, 309°W: Both show S Meridiani inside the disk. The

seeing looks poor just admitting to allow him to barely take Huygens crater. Hellas is also not so bright. The preceding half of Syrtis Mj is receiving an effect of the evening mist from Elysium just on the terminator. The former shows a bit of M Cimmerium near the terminator, and Hesperia is partly visible. M Acidalium is coming calmly from the morning limb. The morning mist at the place may be not thick. The npc looks complex, but almost without details.

Sadegh GHOMIZADEH (*SGh*)'s single colour image is at ω=050°W. Among his images hitherto obtained, this is comparatively better one, describing characteristics of several dark markings such as the sinking S Meridiani up to Agathodæmon. The area around Tithonius L is governed by the morning mist. Main themes of M Acidalium and Nilokeras, and Hyperboreus L are shown. We do not care about the off-whiteness of the npc, but do not understand why it shows a bit a reddish tint. *SGh* also forgot to check Tharsis spots.

DTy gives a single colour image at ω=055°W (22:22 GMT). The upper dark markings are described in a blackish bold face, but several characteristics are shown. The southern part of M Acidalium looks faded including Nilokeras. Hyperboreus L is very dark, and the npc shows a brownish Chasma Boreale. Tempe has a lighter area. Inside the thick morning mist, the brownish Ascræus Mons pokes out, and Olympus Mons is coming in (just on the limb). Unfortunately however the details of Solis L and Aurea Cherso are missed.

Christophe PELLIER (*CPl*) puts forward three sets of images at ω=075°W, 083°W, 090°W. At ω=075°W, *CPl* himself noticed that there was a swelling of a white cloud from the terminator adjacent to the northern part of Margaritifer S. Different than this, the evening mist starts from the east of the southern part of M Acidalium. As the dark markings, Auroræ S, Tithonius L, Solis L and so on are shown. The area of Aurea Cherso is also described well. The southern part of M Acidalium is quite faded, partly by the invasion of the evening mist. The NW end of M Acidalium is usually dark, and Hyperboreus L is quite dark. This embraces the npc in which a rift (Chasma Boreale) is evident. The morning mist and cloud are well captured, and the brownish part of Ascræus Mons poked out is larger than expected, Pavonis Mons follows, and finally the large brownish terrace including Arsia Mons is visible. A large figure of Olympus Mons is also pinned down inside the mist. The Ascræus cloud still exists. The image at ω=083°W corresponds to *DTy*'s one made on 4 April showing a bright small white spot. *CPl*'s present image surely proves that the white spot was located nearly between Ascræus Mons and Pavonis Mons, of course at the western side of the ridge. Even at ω=083°W, the swelling at the terminator is visible. Solis L is now considerably inside the disk. Phœnicis L is visible as an isolated spot. Ascræus Mons et al are not clear, but they show a brownish colour until the southern end of Arsia's large hill. The remains of the Ascræus cloud are located to the west of Ascræus Mons, and are thick partly. The area of Olympus Mons is complex, but appears as a dark hole in B. At ω=090°W, the swelling seems to have almost moved to the rear side. Ascræus Mons is now blurred, but still a bit of cloud follows. The bright small cloud spot *à la DTy* is now very evident. Olympus Mons is still seen somewhat separated from the morning mist, but maybe it will be difficult to see the opposition effect because of the remains of the mist. Alba Patera is visible whitish on every image (stronger on the latter two images). M Acidalium is now going to be covered by the evening mist.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140407/Km07Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140407/Kn07Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140407/Is07Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140407/Mo07Apr14.jpg

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140407/SGh07Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140407/DTy07Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140407/CPl07Apr14.jpg

8 April 2014 (λ=113°~114°Ls, δ=15.1"): The planet was at opposition on this day at 21h GMT.

Kn chased the planet for 3 hrs and a half and made a total of 6 colour drawings at ω=260°W, 271°W, 281°W, 290°W, 300°W, and 310°W (15:45 GMT). *Kn* at Fukushima faced to the surfaces where Syrtis Mj moved from the morning side to the evening side. At ω=290°W, S Meridiani entered the disk. He does not draw Syrtis Mj to be so dark. This is preferable not only as an attitude but also as a method. Those who are used to the ccd techniques tend to like the procedure to express Syrtis Mj and the like to be quite dark. However to the naked eyes they just appear dark temporarily and not always. So the brain tells us to express them in an averaged and mild strength. At ω=260°W, Elysium is light with the cloud inside in good contrast with the Ætheria dark patch. A broad stream of mist stems from this cloud, and goes down to Syrtis Mj. At ω=271°W, the mist band crosses over Syrtis Mj and goes to Æria. The north side of this band is a bit reddish. This reddish colour is major from around ω=300°W. The drawing of the terminator area of Elysium and its environment at ω=290°W is exquisite. Hellas becomes rather dull at later drawings. A part of Observing Notes at ω=260°W, 271°W can be read in LtE #422 Web edition which was received on 13 April 2014 at 00:02 JST.

Masami MURAKAMI (*Mk*), one of the present writers, made the first observation last year on 11 October 2013, while because the angular diameter was small and the seeing was poor, as is characteristic in winter, the observation proved to be unsuccessful. This January he tried a few times, and also once in March, but any trials turned out to be unfruitful. So he waited for a warmer season and tried again to watch on opposition day. Namely on 8 April 2014, *Mk* observed at ω=260°W, 270°W, 279°W, and grasped nearly the following: the slightly bluish but white Hellas, the movement of Syrtis Mj from the rhs to lhs, Elysium as it gained a brighter aspect after noon, the area of Æria being light etc. The density of Utopia looked low, and the npc is apparent but smaller than expected.

AWs's file consists of two images at ω=272°W and 274°W which are differently processed. As to details, the second image is better concerning details, while the colour of the dust disturbance of the npc, the first one looks better. However the details are shot better in the second. The details outside Rima Borealis are also nicely on the second image. The impression of Hellas quite appeals on the first one. The details of the northern part of Syrtis Mj and around the Huygens crater look better in the second. However if we look from the view-point of colour or procedure, the evaluation may fall into a more complex situation. The white cloud and the pinkish ground-lit streak are distinguishable in both images. The Elysium cloud is nicer on the first image. We should not forget to note that it is remarkable for Olympia and its tail to show a complex appearance. Anyhow any Martian image of *AWs* shows several highly advanced items.

Akinori NISHITA (*Ns*) has been at the Observatory of the Fukui City Museum of Natural History a few times this season to help the other of the present writers (Masatsugu MINAMI, ***Mn***) who is suffering from the Parkinson disease. This is the first time this season when *Ns* took the ccd images by the use of the same refractor which *Mn* uses. ***Ns*** took ccd images at ω=272°W, 286°W, 291°W, 308°W, and on the other hand ***Mn*** observed visually at ω=262°W, 282°W, 296°W, 306°W. The time was chosen arbitrarily and not made every 40 minutes, because *Mn* was destined to take rest on the following days for a while, and so he cannot compare the surfaces of the different days. On this day, *Mn* first observed at ω=262°W,

while the seeing was not good. From this angle Syrtis Mj was apparent and the considerable bright Elysium was seen near the following terminator together with the Ætheria dark patch. Rima Borealis was caught outside the bright npc. The shape of the whitish bright Hellas was well figured by *Ns* at ω=272°W. The northern end of M Cimmerium is nicely caught. On the image of *Ns* at ω=291°W, the Huygens crater is evident and the northern end of Syrtis Mj was so and so. This refractor (20cm ED *F*/12) replaced the old one in 1985, and ever since, *Mn* has been fond of this refractor. He was pleased to know that *Ns* was able to easily show Huygens by stacking under this poor seeing. At ω=308°W, *Ns* showed the fork of S Meridiani though it was still near the morning limb. The broad misty band stating from Elysium to Syrtis Mj is apparent in B which was also checked by visually at ω=296°W, while *Mn* feels *Ns*'s B filter admits a bit longer wavelength light. Furthermore, *Ns*'s RGB looks to show a bit high contrast and its colour tone is not very real.

Is's images show the surfaces at ω=277°W, 287°W, 296°W. Elysium is away. Syrtis Mj and Hellas are visible. The image at ω=287°W shows the npc.

Mo shot at ω=284°W, 289°W, 294°W: When Mars is nearly at opposition, he got an image where Syrtis Mj is at the very centre. The first set is good as a whole where Huygens is visible. The second and third sets look a bit excessively processed. The R image at ω=289°W is excellent, and this must have affected the other ingredients wrongly. Note that Elysium should be better at ω=284°W, still showing the internal structure and Hellas is also better at the first set. We should judge the markings should be rather faint. The last two sets should be mildly processed to reveal the fine structure inside Hellas since R and G images look better.

Km took the L-colour image at ω=300°W and B at ω=298°W. There is little wrong with the details of colour image, but the tint of the surface as a whole looks monochromatic. Hellas gives a good impression. The B image seems to show a broad mist band from Elysium.

MKd observed at ω=021°W. The RGB image is big in scale, and hence the image looks blurred while this image is considerably detailed. The northern part of Margaritifer S is well described, and the faint part of M Acidalium is appealing. The area of Eos to M Erythræum is well fixed. Chasma Boreale of the npc is evident. The evening terminator shows a mist which has been the went-away Syrtis Mj.

DTy's file consists of three images at ω=043°W, 046°W, 060°W. Every colour image shows Ascræus Mons poked out from the morning mist. At ω=060°W the brownish summit of Pavonis Mons is apparent. The Ascræus cloud is thick.

Peter EDWARDS (*PEd*)'s image is single at ω=065°W. This was taken when S Meridiani stayed on the preceding limb. Inside of the morning mist, some Tharsis Montes are faintly shown. The markings look quite dark including Solis L.

CPl issued an important set of images at ω=070°W, 078°W, 084°W. The minor markings to the west of Margaritifer S are all shown. At the evening limb, S Meridiani is a bit seen and its north shows an evening mist. On the other side, the morning mist is thick and through the mist Tharsis Montes are visible. Every RGB image shows Olympus Mons to be large in a pinkish tint, and Olympus Mons looks as a large shadowy hole in G and B. The B image at ω=079°W is especially superb, and may also show the Arsia height as a comma-shaped shadowy area (in addition to Olympus Mons). This image may tell us something about the meteorology at this region at this season. The Ascræus cloud is thick at ω=070°W and the following B images at ω=071°W, 079°W, 085°W show the variation of the cloud in the morning (on a special day at Opposition).

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/Kn08Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/AWs08Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/Ns08Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/Is08Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/Km08Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/MKd08Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/DTy08Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/PEd08Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/CPl08Apr14.jpg

9 April 2014 (λ=114°Ls)

Jean-Jacques POUPEAU (*JPp*) sent us the RGB, R and B images at ω=083°W: Solis L is near the CM, but the dark markings look to lack a density. Solis L shows some details. From the evening limb a broad mist band comes into Chryse, but no explicit detail about the morning side. The npc suggests a complex structure, but looks blurred.

XDp shot at ω=083°W, 098°W. The former shows the same angle as *JPp* but here Olympus Mons is largely evident in a pinkish tinge. This is visible also in B as a shadowy area. In the latter, there is seen a cloud wall at the western side of Ascræus Mons. In order to check how the Ascræus cloud, which was well thick at ω=083°W, dissipates, one should chase every 20 minutes or 40 minutes. Tempe and Alba are a bit white misty.

EMr gave a set of images at ω=129°W. The evening mist is very thick, but separated from the Tharsis ridges. Olympus Mons is located near the CM, and its flank looks to be covered by a cloud. In R, Olympus Mons is like a ring. Alba Patera is roundish white. Several areas show a ground brownish colour free from the mist, well shown due to G and B.

Mk tried, in continuation of the day before, to observe at ω=262°W and 271°W. The seeing condition did not improve. So *Mk* failed to check any details though the apparent diameter is large.

Mo took the pictures at ω=274°W, 279°W, 284°W, where Syrtis Mj passes the CM. At ω=274°W, the cloud is barely distinguished from the ground-lit streak inside Elysium in RGB. In R, the two arms of the southern part of the Ætheria dark patch are grasped. It is interesting to see that the area between Hellas and Syrtis Mj shows a refrain of light and shade patches. (We hope *Mo* will look for the reason why the boundary of Hellas does show a purely blue fringe.)

Kn obtained a colour drawing at ω=280°W under a favourable seeing condition. Syrtis Mj and Hellas are near the CM, and the west side markings such as S Sabæus and the east side light cut of Hesperia are shown. Utopia is also shown that it has a bit greenish tint. Hellas suggests a fine structure inside. The npc is complex and beyond Rima Borealis, Olympia remains. The west belt adjacent to Casius is a bit whitish. Elysium cloud is now at the preceding limb.

Km shot at ω=281°W. The inside of Hellas is complex. The Huygens crater is well visible. Surely, along the border of Casius, there runs a light belt. A faint area to the NW of Rima Borealis consists of a terrace. The tail of Olympia is very long in an interesting way.

Martin LEWIS (*MLw*) is of the image at ω=046°W. There still remains in the disk S Meridiani which shows Aryn's nails. Solis L is already inside the disk. Any dark markings show details to some extent, while the general impression of the surface is rather dull. M Acidalium is well described about the faint part as well as the darker WN area. Hyperboreus L is connected with M Acidalium by two canals (one is

Iaxartes). The npc shows Chasma Boreale. The morning mist cannot be said whitish, but through the mist curtain Tharsis Montes and separatedly a big figure Olympus Mons are barely apparent.

Kris SMET (*KSm*) made a colour drawing at ω=047°W. S Meridiani is clearly caught. But *KSm* failed to unearth the shape of M Acidalium, perhaps because it is fainter than expected. We suppose *KSm* detected Hyperboreus L adjacent to the npc.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140409/JPp09Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140409/XDp09Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140409/EMr09Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140409/Mo09Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140409/Kn09Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140409/Km09Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140409/MLw09Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140409/KSm09Apr14.jpg

10 April 2014 (λ=114°~115°Ls)

LAt shows three images side by side which were all obtained at ω=062°W, but differently processed. The first one is normal, but others look embossed. The first one is of dull colours and looks like a monochrome image, but the details it shows are considerable. Such markings as Solis L, the area of Aurea Cherso and Agathodæmon are exactly quite detailed. Juventæ Fons appear as a darker spot after a time. However we wonder why it is difficult to find the Tharsis ridges and Olympus Mons inside the morning mist. The Olympus Mons area is really found inside, but it appears to be too colourless to find. As far as the terrace of Olympus Mons is concerned, we don't think the embossing of the following two images means something. We just want to know whether the morning mist reached the inside of Tithonius L. It is fantastic to see the evening Thymiamata cloud to make a large circular lighter area.

XDp's image set by the use of an 18 cm Newtonian was made at ω=072°W. The images are above average, and looks to show a bit of the brownish Arsia terrace. Olympus Mons is also visible inside the mist. It is good to see Chasma Boreale inside the npc.

FMl's colour images are successively taken at ω=116°W, 124°W, 131°W, 139°W. Its span is about one hour and a half. Olympus Mons must have been aimed at, while the cloud is slightly seen at the west side of the flank: It is no more conspicuous and the opposition effect should be said not recorded. On the first image, Solis L is a bit seen.

PGc's image set consists of RGB, R, G, B and IR742 images made mostly at ω=134°W (IR image at ω=136°W). Under a high resolution, it is clearly shown that Olympus Mons' cloud stays at the western side of the flank, while the other side is surrounded by the pinkish ground. In fact Olympus Mons appears as a ring on the R and IR images showing the opposition effect (ι=2°). Near the preceding limb, the evening mist is thick and beautiful. Tharsis ridges's cloud is visible at the west side, and the cloud associated with Ascræus Mons is thick. Arsia's terrace looks bared. Alba Patera looks as a large weak ring on RGB (misty on B). Near the evening limb, Solis L is visible, and near the southern limb, M Sirenum is dark. Eridania, to the south of M Sirenum, is reddish light. At the morning side, Propontis I is evident. Olympia is rising and the Rima between is very dark. Seemingly, a faint misty projection upward from the npc is checked.

Mo issued three image sets which are obtained at ω=264°W, 268°W, 274°W. The seeing must be comparatively poor, so that the evening Elysium is on the verge of bare division of the ground-lit streak

from the cloud streak; the cloudy part stands upright as usual. However it is not so clear for the streak to send a misty matter to the area of Syrtis Mj: Just the B image at ω=264°W may suggest it. It is not so easy to see Huygens even at ω=274°W.

AWs's is a single colour image made at ω=291°W. The procedure of the morning terminator and the evening limb is not satisfactory, while the details of Syrtis Mj and Boreosyrtis are shown at high levels. The aspect of the doubled tail of Olympia should be noticed. The npc is also described interesting.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140410/LAt10Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140410/XDp10Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140410/FMl10Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140410/PGc10Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140410/Mo10Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140410/AWs10Apr14.jpg

11 April 2014 (λ=115°Ls)

Km shot at ω=256°W. The contrast between the coming blue-whitish Hellas and the preceding Ausonia's bright sand colour is remarkable. The inside of Elysium shows the cloud of Elysium Mons independent from the ground-lit boundary curve adjacent to the Ætheria dark patch; its southern part being forked. Olympia looks very long straightforwardly.

AWs's is of the single colour image at ω=259°W. Amazingly the ant's eye (Herschel crater) is visible despite the fact that M Cimmerium is quite near the preceding limb. Syrtis Mj also shows a detail despite its position at the morning side. Inside Elysium, the eastern side of the Ætheria dark patch is quite reddish, while the cloud associated with Elysium Mons is not so strong. There are shown lots to be noticed: For instance, the following points should be remembered: the southern end of Utopia is not simply spiky (but fractal?), Olympia is complex with complexed tails, the npc shows several dusty ejections toward Rima Borealis,….. .

DTy's single colour image was obtained at ω=027°W. From the western half of S Sabæus near at the evening limb up until Agathodæmon near the morning terminator, many of the minor markings are shown well though they look slightly blurred. M Acidalium is near the CM, which is rather faint except for the NW corner. Hyperboreus L is dark blue. At the evening limb, the remainder of the mist after Syrtis Mj sank congealed thickly, while the morning mist is more vastly whiter.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140411/Km11Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140411/AWs11Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140411/DTy11Apr14.jpg

12 April 2014 (λ=115°~116°Ls)

EMr's set of images shows the surface at ω=093°W. Since the B image is as if chequered miraculously by the mists, the RGB explicitly shows some interesting distributions of white mists. This situation looks quite realistic. At the evening limb, the Thymiamata white cloud thickly stays affecting partly M Acidalium. The south of Solis L looks misty. Tithonius L and even Ophir-Candor are also misty. On the other hand, the area including the summit of Ascræus Mons and the skirts of Olympus Mons must be largely without mist and hence some brownish/roundish areas are visible. The Arsia terrace with Mons has an area of clear sky. It is interesting to check these areas in G and B as well as In R. In R, the area of Olympus Mons looks ring-like around the summit crater. Still ι=3°. Note that the Ascræus cloud must

survive longer after the phase changed. Alba Patera is whitish. The npc's perimeter is complex, and the preceding ice-shards of Olympia as well as Olympia are visible.

Don BATES (*DBt*)'s image set is at ω=108°W. This is also good in showing the vast spreads of mists. Especially the aspect of Olympus Mons is well described in RGB: Outskirts is conspicuous with a dark brownish tint. Olympia further rose.

Km shot at ω=252°W where the bright Hellas has just come in. The preceding Ausonia is of sandy colour. The description of the evening M Cimmerium is excellent. Elysium is also detailed inside, and really the position of Elysium Mons is pinned down. Its ability of sending mist upward seems to have been weakened. As on the day before (at ω=256°W), Olympia looks as a straightforward white segment. Utopia looks weak.

MKd's set of images was obtained at ω=343°W. S Sabæus is passing the CM. Hellas is very white on the evening limb. The evening mist obliquely encroaches on the northern part of Syrtis Mj, making the part to appear dark blue. Near Hellas, M Serpentis looks very faded while the Huygens crater is very apparent. On the morning side, M Acidalium is wholly under the morning mist, but near the NW corner a singular expanse of brownish colour exists (this triangular part is quite shadowy in B). Hyperboreus L, which is still stays near the terminator, is also fainter due to the mist.

SGh's colour single image was given at ω=354°W: Syrtis Mj is approaching the evening limb, and almost all of Hellas sank. Contrarily M Acidalium is more inside. The present image shows several details (for example, *CPl*'s bridge is shown), but as a whole the markings are described too dark. If this image is treated more mildly, Sadegh will gain more excellent images.

JSb obtained this image at ω=019°W where M Acidalium is near the CM. Such minor markings as Brangæna, Chasma Boreale etc are shown, but unfortunately the rhs of the disk looks full of scars as if made by scratching. Such markings as Oxia P, the npc are all in good shapes, and so regrettable.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140412/EMr12Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140412/DBt12Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140412/Km12Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140412/MKd12Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140412/SGh12Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140412/JSb12Apr14.jpg

13 April 2014 (λ=116°Ls)

Charles TRIANA (*CTr*) lines up three colour images made at ω=083°W, 096°W, 112°W. At this moment what most attracts our interest is about the variation of Olympus Mons and others as the time goes by. More concretely, the exposed skirts of Olympus Mons, the cloud associated with Ascræus Mons etc. At ω=083°W the Ascræus cloud is active, while at ω=112°W it proves to have partly vanished. Olympus Mons is already visible in an elliptic oval form under a slightly misty condition, and at ω= 096°W, the oval gains a bit pinkish tint inside, and at ω=112°W the oval's surroundings looks more clear including skirts. As to the dark markings, the ria-type coast of Chryse is well described in spite of the evening condition at ω=083°W. Furthermore Solis L and the area of Aurea Cherso and Tithonius L as well as Nilokeras are described well. Chasma Boreale is visible, and Olympia advanced following a few of ice-shards.

MVl made a big file consisting of six sets of full images at ω=207°W, 217°W, 226°W, 235°W, 238°W, 241°W. The series begins from Elysium at the CM. The pinkish streak which runs along the Ætheria dark patch is apparent from the outset, but the Elysium cloud is not strong until ω=235°W. This result is an

outcome of this 2014 season. The aspect of Syrtis Mj after the terminator went to the morning side is also interesting if well chased. M Cimmerium here is well mapped including ant's eye (Herschel crater). The description of Olympia is favourable around at ω=238°W.

Kn produced two colour drawings at ω=220°W and 230°W. He met with the early morning bluish Syrtis Mj and the CM passing of Elysium. Olympia is caught. The drawings show a delicate distribution on the surface. Note that Ausonia is reddish near the southern limb.

BCr also shot twice at ω=223°W, 243°W. On the first image, the cloud inside Elysium is shown to be separated from the pinkish streak at the western border of Elysium. The Elysium cloud, its thickest part being just at Elysium Mons, sends out a mist band upward. This band then curved down to the morning Syrtis Mj. This is more apparent on the second RGB image at ω=243°W. Is there a shadow at the following side of the Elysium cloud? The Ætheria dark patch is well described in both images together with the two branches at the southern part. M Cimmerium well shows up with the Herschel crater. The image of Olympia is also detailed.

Mark JUSTICE (*MJs*) also chased wisely about every 40 minutes and produced four sets of R, G, B images at ω=224°W, 236°W, 249°W, 257°W. Syrtis Mj was chased well after it was inside the disk, and as well Elysium was chased nicely. The cloud and the ground-lit streak inside Elysium are here beautifully distinguished: The cloud pillar shows its shadow. It is apparent that there is a broad curve of the mist from Elysium to Syrtis Mj. The image at ω=257°W is most balanced since Syrtis Mj is now fully shown up. Note that Huygens is now visible even if near at the morning terminator. Olympia is also shown to have a detailed structure. The image at ω=236°W is also important since it explicitly begins to show the reddish colour of Ausonia and shows well the shadow of the Elysium cloud as well as the clear shape of the Ætheria dark patch.

SBd obtained a set at ω=240°W: The images are large but reasonable, and the RGB image looks excellent. M Cimmerium is successful just except for the northern end. The inside of Elysium is detailed, and on B the broad mist band is well described in an arc from Elysium to Syrtis Mj. At the southern limb the south Ausonia is rather light in a sandy colour. Note the possible rift of the npc and the complex details of Olympia.

CPl's two sets of RGB images were obtained at ω=022°W, 034°W. He also add an R image at ω=006°W, and an IR685 image at ω=027°W. The RGB image at ω=022°W caught well the rhs nail of Aryn near the evening limb as well as Brangæna. The northern part of Margaritifer S is nicely expressed together with Oxia P. Further followers of minor markings including the splinters of Auroræ S and so on are successfully depicted. M Acidalium is shown typically with the faded but detailed southern part. The "bridge" at the eastside neighbour is visible. The darker NW corner of M Acidalium is connected by two canals with Hyperboreus L which is quite dark. The inlet of Chasma Boreale is evident in the npc. To the west of these a disturbance of white mist is seen in G and B (*Kn* pointed out that there might possibly exist a spiral cloud judging from the B at ω=021°W - See LtE). At the southern region M Erythræum's complex is shown. At the southern limb, a thick mist patch is suggested (near Argyre?). A little rotation brings to ω=034°W where for example a further view of Aurea Cherso is given (see also the IR image at ω=027°W) while Tithonius L is still under the morning mist. However a brown spot is poking out near the terminator. In G and B, a roundish light area is visible inside Tempe.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140413/CTr13Apr14.jpg

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140413/MVl13Apr14.jpg

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140413/Kn13Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140413/BCr13Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140413/MJs13Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140413/SBd13Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140413/CPl13Apr14.jpg

14 April 2014 (λ=116°~117°Ls): Mars was closest to the Earth at 12:54 GMT with δ=15.16".

David ARDITTI (*DAr*) gives a single colour image at ω=032°W. M Acidalium is near the CM. Several of the southern markings and something inside the morning mist are caught well, but they do not look to have been treated carefully. The colour of the npc is not realistic.

XDp gives one set of R, V, B and RVB images at ω=048°W. Meridiani S is near the evening limb, and, at the morning terminator, Solis L is coming in. The depiction of the dark markings including M Acidalium is above average. The morning mist near the terminator is beautiful, and the summits of some Montes poke out from the mist in every wavelength. Tempe is a bit light in R, V, and B. Chasma Boreale of the npc is suggested inside the dark Hyperboreus L.

Damian PEACH (*DPc*)'s satisfactory work was made at Barbados island, and the images on this day were obtained at ω=062°W, 071°W, 073°W, 083°W (colour images) and at ω=076°W, 086°W, 098°W (B images). The image at ω=083°W is the one first provided and can be thought the most detailed. Any dark markings are blackish, and at a first glance any delicate marking looked composed of black spots. Solis L was aimed at near the CM, which is slightly covered by a branch of the morning mist. The boundary of Thaumasia is surrounded by a black wall-like perimeter. The area around Aurea Cherso makes us remind of the scene we encountered visually on the occasion of the 2003 apparition. Tithonius L holds a mist in its inside, and the outline is made of small black oases. Juventæ Fons is also a black spot but has an elliptical shape. It is amazing to see a misty spot just on the canal which connects Juventæ Fons with Auroræ S. The ria structure of the southern end of Chryse is composed of several black segments. On the other hand, the summits of Ascræus et Pavonis Montes show up as a tiny dark-brownish spots. The terrace which contains Arsia Mons is also light-brownish. The summit crater of Olympus Mons also pokes out in a brownish ring investing a whitish tiny spot. The Ascræus Cloud is still largely evident (also seen on the preceding images). M Acidalium is misty at the southern part invaded by the evening thick mist (originally at Thymiamata), but the main body looks to go to the rear side without mist. The npc looks speckled on the white basis. Chasma Boreale is a black straight segment. The background Hyperboreus L is expected to show dusty polar disturbances, but here no sign of brownish dust. The ice-shards preceding Olympia are checked at least five pieces, and the detail aspect looks completed. These details so should be compared with the HST case in 1997, since on 30 March 1997 (λ=097°Ls) HST brought an important image at ω=105°W. The ω and season are slightly different, but the npc attained already the minimal state, and hence the comparison will make sense. As shown below in a Note, the case of *DPc* must be too excessive. Contrarily speaking, the excessive procedure has a possibility to give a false appearance and does not necessarily suggest the true configurations of the markings. The B image at ω=086°W shows a lot of wavy configurations made of misty slim bars which must have been not so explicit in the HST's B images in 1997. If this is a newly found meteorological phenomenon, we should expect for a scientific explanation.

EMr's angle is at ω=073°W which is appropriate to see the whole aspect of Arsia terrace poking out inside the morning mist. Before *DPc*'s images reached, *EMr*'s image implied the first this season which

showed the brownish Arsia terrace. Olympus Mons is also poked. The Ascræus Cloud is still thick. This image set is neither too much nor too little in describing the distribution of the mist over the surface. The evening mist preceding M Acidalium is thick as if it is protruding, but it should be noted some minor dark markings inside the mist. At the southern limb some mists is visible and Claritas is also misty. Alba is weaker. The npc is white, and shows Chasma Borealis which is blurred at the inlet. To the west of the npc, Olympia is turning up, and the preceding ice-shards are seen two or so. The dark markings are also shown well. The area of Aurea Cherso is caught well in R at the morning side.

MJs chased the planet for three hrs and obtained six sets of full images successively at ω=199°W, 206°W, 214°W, 223°W, 232°W, 241°W. Apparently great work. At ω=199°W the cloud at Olympus Mons is whitish bright, while the cloud inside Elysium is dull, though the broad mist from Elysium to the morning side is visible. At ω=206°W, the white small cloud at the summit of Elysium Mons is apparent, which is separated from the pinkish streak along the Ætheria dark patch. The curved broad mist band from Elysium to the morning terminator is still apparent. At ω=214°W, Syrtis Mj shows up inside the morning mist in a bluish tint. Here M Cimmerium is well described showing for example the ant's feet and ant's eye (the Herschel crater). Olympus Mons's cloud now joined the preceding Tharsis cloud. And the tail of Olympia begins to show a complex structure until ω=232°W. The npc looks quite flat. This series is also excellent in that they show the gradual brightening of Elysium cloud. Olympus Mons looks on the evening limb at ω=232°W. Since this side (*p* side) does not have the terminator, this would be one of final data. As seen from the B series, it looks that the mist from Elysium westward and the evening mist is cut around Ω=190°W.

Ns's second opportunity of shooting at the Fukui City Observatory atop Asuwa-yama was made with the other of us (Masatsugu MINAMI, (***Mn***)). *Ns* obtained five sets of images at ω=204°W, 216°W, 229°W, 244°W, 256°W. *Ns* has not been so accustomed with this refractor, and the aperture is so smaller that the resolution he got must be inferior. On the day, as on 8 April 2014, *Mn* also visually observed alternately at ω=198°W, 207°W, 220°W, 234°W, 249°W. At ω=198°W, the cloud at Olympus Mons was bright near the evening limb. We did not necessarily employed the method of every forty minutes since *Mn* cannot observe not only on the following day but also for a while because of his physical condition, and hence the assumed comparison with the surface of the other day is apparently out of question to *Mn*. On the day, the seeing was unfavourable in general. Just around at ω=234°W (14:10 GMT) it looked a bit improved. To judge the resolution rate of *Ns*'s images, we can look the situation of the Hershel crater of M Cimmerium, but this ant's eye is not well detected even on the comparatively better images at ω=216°W. Furthermore the colour difference inside Elysium is not apparent on every image. According to *Mn*, Elysium does not show a fitting brightness, and even in *MJs*'s case, the cloud at Elysium Mons is pin-point-like and so the seeing did not allow further survey. At *Ns*'s ω=216°W, Olympia suggested a complex structure of the tail. On B, the broad mist band from Elysium to Syrtis Mj is recognised. This was also checked by *Mn*'s naked eye at ω=234°W. Olympus Mons disappeared before ω=244°W (*Ns*), but the preceding *Ns*'s check was at ω=229°W and hence the margin of one hour is too long. Olympus Mons diminished around at *Mn*'s ω=234°W, which is near the *MJs*'s value ω=232°W (on the limb), and hence the value should be said fixed. Visually we can assure that the morning mist looks bluish over the coming-in Syrtis Mj.

SBd took a set of images at ω=219°W. They are mildly finished and beautiful. Syrtis Mj is visible inside the terminator (slightly bluish). At the evening limb, the very white cloud of Olympus Mons is

about to make an exit. Near the CM Elysium stays, and the cloud over Elysium Mons is localised and the pinkish ground streak is separated. The Ætheria dark patch is faintly seen with the fork upward. M Cimmerium shows Hershel. Olympia is near the CM, looking very complex. Note that the R image is nicely detailed. It is apparent in B the morning mist is related with the mist sent from Elysium.

Kn made a colour drawing at ω=220°W (to be comparable with *SBd*'s observation above). The coming Syrtis Mj is bluish. A bit bright Elysium is near the CM. Southern Ausonia is drawn in a sandy colour. It should be noted that the preceding side of Elysium is reddish. At the evening limb a remainder of Olympus Mons cloud is visible. Olympia is seen in a complex form to eh south of the npc.

BCr gives a couple of sets of images at ω=220°W and 231°W. Both RGB prove that the government of cloud inside Elysium is weak though Elysium Mons has a cloud cap (also in B). The Ætheria dark patch is quite detailed (the southern fork is definite). The pinkish ground-lit streak looks also bounded from the east because of a shadowy line. M Cimmerium is well described. Olympia shows a complex structure. Even at ω=231°W the remainder of the Olympus Mons cloud is visible on the terminator.

Is's images are from the Videoimages and composed at ω=221°W, 230°W, 241°W (every 40 minutes). The colour is not varicoloured, while shows considerable details. The cloud inside Elysium looks to develop. On the final image at ω=221°W, M Cimmerium is well described. N Alcyonius is complete. Olympia also suggests a complex structure. Hellas comes in.

MVl's image sets were obtained at ω=221°W, 240°W, 243°W, 248°W. Also here, Elysium at ω=221°W shows the tiny cloud cap at Elysium Mons and the pinkish streak. The cloud however gradually develops a bit until at ω=248°W. M Cimmerium is well described on every RGB image. The tail of Olympia is chased. The cloud associated with Olympus Mons vanishes at ω=243°W. *MVl* also shows an IR image at ω=224°W. In R and IR, Propontis I shows an inner structure. In the case of *MVl*, the time looks quite arbitrary, but the observation time is preferred to be chosen to correspond to an ω on the preceding day. Here ω=240°W just corresponds to ω=241°W on the preceding day.

AWs gave a single colour image at ω=229°W. M Cimmerium et al are considerably detailed. Inside Elysium, the pinkish streak is conspicuous, bounded from the east side. The cloud looks some developed. The stream of the broad mist band to the morning Syrtis Mj is recognised. The description of the structure of Olympia is amazing; complex but definite. As to Utopia of this apparition, we should refer to this image. The west of Casius is also well described with the fractal point at the southern end. The npc shows Chasma Boreale at the rear side.

Km shot after mid-night and got an image at ω=256°W. Elysium is now on the evening side. The colour difference inside Elysium is clear. The cloud part is now slightly expanded. Olympia complex is well mapped. Hellas comes in, in a bit bluish tint.

MKd observed at ω=327°W: The evening mist goes down to the northern part of Syrtis Mj. Huygens is visible. The morning mist as usual. The outside of Rima Borealis is a bit light.

DTy shows eight colour images at ω=330°W, 335°W, 338°W, 343°W, 350°W, 355°W, 359°W, 004°W (20:44GMT~23:01GMT). The images are stable during the time, and so it is interesting to watch how S Sabæus rotates during the time span. The eastern end of S Sabæus is faint and it is apparent that M Serpentis has been faded. It is also possible to chase the evening mist and Syrtis Mj. At the final ω=004°W, Syrtis Mj is still inside the disk and Hellas is a bit visible. M Acidalium is apparent from the outset, and is fully visible finally. The perimeter of the npc is little moved during two hours. The "bridge" inside the light belt preceding M Acidalium easily appears on any images. It is that we have missed see-

ing it for a long time.

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15 April 2014 (λ=117°Ls)

DAr gives a single colour image at ω=022°W. Several minor markings are detailed from S Meridiani westward upto Agathodæmon. The area of M Erythræum shows its own structure expressed by light and shade. However the colour nuance of the dark markings may not be realistic. Hyperboreus L has some small disturbances inside, while they would be of brownish colour. M Acidalium is near the CM and shows well recent trend of its inside. The light belt preceding M Acidalium gives a glance of the "bridge" as *DTy*'s images.

DPc obtained a colour image at ω=070°W and a B image at ω=082°W at Barbados. The former is normally processed, and is an excellent image. The description of Solis L as well as the area of Aurea Cherso is splendid, and details of the area of Juventæ F are also outstanding. This image will be the first this apparition that depicted the Arsia terrace in a three dimensional perspective. Note that the evening mist is concentrated to the north of Thymiamata. In B, the Ascræus cloud is still thick between Ascræus Mons and Olympus Mons.

EMr gave a set of images at ω=071°W (four minutes later than *DPc*'s time). The first marking that attracts our attention on the RGB image is the dark brownish colour as well as the shape of the Arsia terrace. Olympus Mons is also poked out in a dark brownish tint. The Ascræus cloud is thicker at the west side of Pavonis Mons. Note also that the morning mist enters to the north of Solis L. The evening mist is solid to the north of Thymiamata. The markings are somewhat not sharp, but the details are shown without much omission.

MVl's seven sets of RGB, R, G, B, IR images were taken at ω=184°W, 189°W, 198°W, 208°W, 216°W, 218°W, 224°W during about three hours. Compared with the work on the preceding day, there is no correspondent angle. The first two or three images from ω=184°W are important because the cloud at Elysium Mons is indistinct or weak, and the white cloud at the west flank of Olympus Mons looks variable (should be referred also to G and B). The cloud of Elysium Mons seems to be explicit as a tiny point from around ω=216°W. Of course this depends on the seeing. For example, the Hershel crater is vivid from ω=208°W, but this is because of the seeing condition. The Ætheria dark patch is visible in every

image and the broad mist band sent out from Elysium is chased up until the morning terminator from before advent of Syrtis Mj. Syrtis Mj in blue colour is definitely visible at ω=218°W and ω=224°W, and at the same time these are excellent as images. The npc and Olympia gather our attention after around ω=208°W.

MJs obtained triple sets of ingredient images at ω=204°W, 218°W, 223°W. On every image, the cloud at Elysium Mons appears tiny and does not expand largely. However the cloud a bit develops: The image at ω=223°W may show another mountain cloud (at Albor Tholus?). The pinkish bright streak along the preceding side of the Ætheria dark patch is visible in all RGB images. M Cimmerium and Hesperia are nicely depicted at ω=218°W, 223°W. The broad mist band from Elysium to the direction of Syrtis Mj is easily seen in B. The description of Olympia is also detailed. The trend of the cloud of Olympus Mons near the evening limb is also interesting. At ω=223°W, an indication of Hellas' appearance is seen following the red-wine coloured Ausonia.

Km's image is at ω=230°W where the cloud of Elysium Mons is somewhat blurred but point-like. The description of Hesperia and M Cimmerium is good.

DTy gives six sets of colour images at ω=326°W, 329°W, 334°W, 337°W, 341°W, 343°W. The first good point to note is the invasion of the evening mist into Syrtis Mj. The difference by 2°W or 3°W will never give any big variation, but *DTy*'s work is of use as reference because *DTy*'s images are stable.

PEd's file is made of two colour images put side by side. The images are obtained at ω=338°W, 342°W. There is a difference between two Hellas as should. The mist expansion on Syrtis Mj is not so different. An artefact line at the evening limb should be erased. Markings are well detailed. The topical "bridge" is faintly visible. Note that the horn-like top of Utopia is nicely captured near the evening limb.

KSm's colour drawing was given at ω=348°W. The relative positions of Hellas and S Sabæus look different. How about the size of the npc? M Acidalium may be more inside.

JSc's image is the one at ω=355°W or at ω=357°W. Several details are caught, but the images themselves look dirty. It is good the "bridge" is shown here as a dark dot.

MLw's is a single large colour image at ω=357°W. By the use of a 45 cm Dobsonian, the details are shown and we feel this is a nicely processed image. Syrtis Mj is near the evening limb and receives the evening mist obliquely at the northern part. The Huygens crater is visible despite the fact that it is located quite near the limb. The following side of Hellas is on the evening limb. The S coast and N coast of S Sabæus are miraculously depicted and every place is quite detailed eg near at Edom, together with Aryn's nails and Brangæna. S Meridiani is connected by thin canals with Margaritifer S. The northern part of Margaritifer S including Oxia P is also detailed. The light streak adjacent to the eastern side of M Acidalium shows the topical bridge inside, but here it's as a dark dot. This dot shows slightly different colour than the around dark markings. One defect of this image is that it lacks a description of the vast covering white mist: It is supposed that the morning mist covers largely Chryse and the southern part of M Acidalium, but it is not explicitly apparent here. Hyperboreus L is detailed but the density looks lower. However the dusty defects of the npc are shown.

DAr's second observation on the day at ω=007°W. The first was made at 00:17GMT (at ω=022°W) and this is at 23:51GMT. The description, if made, will not be so different from the first one. This time it is possible for an artefact line to overlap Syrtis Mj.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140415/DAr15Apr14.jpg

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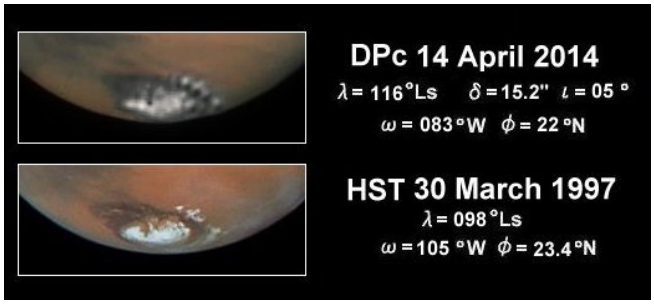
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140415/DAr15Apr14n.jpg

♂・・・・・・***Editorial Note:*** Here is shown a comparison of the area of the npc on *DPc*'s image on 14 April 2014 at ω=083°W with the HST image on 30 March 1997 (λ=097°Ls) at ω=105°W. One would regard the former as a detailed mapping, but it would be apparent the preceding part of Olympia of the former does not suggest the characteristics of the corresponding part in the latter image.



Masatsugu MINAMI & Masami MURAKAMI

Letters to the Editor

●・・・・*Subject: Martian observations*
Received: 1 April 2014 at 03:10 JST

Dear Sir, Herewith some recent Mars observations. I hope they can be of some use for CMO.

Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/index_LAt.html

○・・・・*Subject: Mars on April 5th 2014*
Received: 8 April 2014 at 22:12 JST

Hi All, Herewith a recent imaging result from Belgium. All information included on the picture.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140405/LAt05Apr14.jpg

Best regards.

○・・・・*Subject: Mars on April 10th 2014*
Received: 12 April 2014 at 03:06 JST

Dear Sir, I could image Mars under good conditions on April 10th 2014. A soft and hard imaging result is herewith included. I hope it can be of some use for CMO. Best regards.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140410/LAt10Apr14.jpg

○・・・・*Subject: Mars April 10th 2014*
Received: 14 April 2014 at 01:58 JST

Hi All, Herewith a Belgian imaging result on Mars. All information included on the picture.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140410/LAt10Apr14.jpg

Best regards.

○・・・・*Subject: RE: Jupiter images 16-Apr-2014*
Received: 18 April 2014 at 15:51 JST

It's evident you still had good seeing conditions on Jupiter. Herewith included is a recent Mars result on a low culminating planet.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140416/LAt16Apr14.jpg

Best regards and keep up the good work.

Leo AERTS (BELGIUM)

●・・・・*Subject: Mars image*
Received: 1 April 2014 at 15:53 JST

Dear Sirs, Please find the attached Mars image taken in fair seeing. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140330/MJs30Mar14.jpg

○・・・・*Subject: Mars image*
Received: 17 April 2014 at 18:30 JST

Dear Sirs, Please find the attached Mars image

set taken in good seeing. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140415/MJs15Apr14.jpg

○····***Subject: Mars image***

Received: 19 April 2014 at 22:25 JST

Dear Sirs, Please find the attached Mars image set taken in fair seeing hampered by buffeting winds. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140414/MJs14Apr14.jpg

○····***Subject: Mars image***
Received: 26 April 2014 at 08:54 JST

Dear Sirs, Please find the attached Mars image taken in poor seeing. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140424/MJs24Apr14.jpg

○····***Subject: Mars image***
Received: 26 April 2014 at 13:12 JST

Dear Sirs, Please find the attached Mars image set taken back on the 13th April in varied seeing that was occasionally good, but typically not for long enough to capture R, G and B data. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140413/MJs13Apr14.jpg

Mark JUSTICE (Melbourne, AUSTRALIA)

●·····***Subject: Mars 2014/03/31-Kumamori***
Received: 1 April 2014 at 21:04 JST

Masatsugu MINAMI-sama, It is as usual, but the seeing condition remains very poor. I met a lot of time when the markings were utterly invisible. However I know the excessive processing destroys the Martian beauty.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140331/Km31Mar14.jpg

○····***Subject: Mars 2014/04/01-Kumamori***
Received: 2 April 2014 at 22:26 JST

Masatsugu MINAMI-sama, From the last night, the seeing turned out to be better, and I could produce the Mars-like Mars. I hope it will improve a little further, but another unstable seeing seems to visit.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/Km01Apr14.jpg

○····***Subject: Mars 2014/04/04-Kumamori***
Received: 5 April 2014 at 07:25 JST

Masatsugu MINAMI-sama, It was not the spring storm, but exactly it was a cold wintry blast. The NW wind was so strong that the seeing remained very poor.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140404/Km04Apr14.jpg

○····***Subject: Mars 2014/04/04-Kumamori***
Received: 8 April 2014 at 11:27 JST

Masatsugu MINAMI-sama, as you know, the cold weather continues. The seeing does not show any sign to improve, but the opposition is at hand. I dream a dream to take images of Mars at the place where the seeing condition is constantly preferable.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140407/Km07Apr14.jpg

○····***Subject: 2014/04/08-&-09-Kumamori***
Received: 10 April 2014 at 22:53 JST

Masatsugu MINAMI-sama, The transparency is not good, but I feel the seeing is improving. However, if I get a better image, I am apt to twiddle with the image, and loose time. I should be simpler, but I tend to want to work on much more.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/Km08Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140409/Km09Apr14.jpg

○····***Subject: Mars 2014/04/11-Kumamori***
Received: 12 April 2014 at 19:54 JST

Masatsugu MINAMI-sama, even if the seeing is decent, it does not imply the seeing suddenly turns to become much better. The excellent seeing does not visit easily. I may thus be forced to finish in a half-finish way. (images on 11 April 2014)

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140411/Km11Apr14.jpg

○····***Subject: Mars 2014/04/12-Kumamori***
Received: 13 April 2014 at 08:04 JST

Masatsugu MINAMI-sama, I was thinking it was cloudy. But I was suddenly aware that Mars was shining. So I hastened to take images. Thin clouds were obstacle, but I could manage to shoot the planet. (images on 12 April 2014)

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140412/Km12Apr14.jpg

○····***Subject: Mars 2014/04/14-Kumamori***
Received: 15 April 2014 at 12:30 JST

Masatsugu MINMI-sama, At Sakai it was fine throughout the day. Due to a bit cold westerly, the seeing was poor at first, but at midnight at the time when the new day came, the seeing turned to improve. I tried to enlarge a bit the size of the image. (Images on 14 April 2014)

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140414/Km14Apr14.jpg

○····***Subject: Mars 2014/04/15-Kumamori***
Received: 16 April 2014 at 18:38 JST

Masatsugu MINAMI-sama, The 15th April was also a fine day, while the transparency became so poor that the Moon after the full looked reddish. The seeing however more improved than the day before, and I could obtain a so-and-so set of images. (Images on 15 April 2014)

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140415/Km15Apr14.jpg

○····***Subject: Mars 2014/04/18-Kumamori***
Received: 19 April 2014 at 21:35 JST

Masatsugu MINAMI-sama, The break of clouds allowed me take pictures of Mars, but both seeing and transparency were very poor. I cannot be quite energetic in shooting Mars. (images on 18 April)

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140418/Km18Apr14.jpg

○····***Subject: Mars 2014/04/23-Kumamori***
Received: 24 April 2014 at 18:28 JST

Masatsugu MINAMI-sama, It was clear from this morning, but the northerly cold wind blew. Accordingly the seeing was too poor to see any markings. (Images on 23 April)

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140423/Km23Apr14.jpg

○····***Subject: Mars 2014/04/24-Kumamori***
Received: 25 April 2014 at 07:06 JST

Masatsugu MINAMI-sama, we had a couple of fine days. Since the High-Pressure air covered the Japan islands, I expected the good seeing, while regrettably it was not so better than yesterday. It was difficult see visually other marking than the npc, but the processing showed me Olympus Mons. It's like the "navel of Mars"! (Images on 24 April)

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140424/Km24Apr14.jpg

Teruaki KUMAMORI (Osaka, JAPAN)

●·····***Subject: Mars 2014/04/01***
Received: 2 April 2014 at 01:02 JST

Mars 2014/04/01, Newton 180 F7, Powermate x5, ADC. IR-Cut, I-Nova PLAC+. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/XDp01Apr14.jpg

○····***Subject: Mars 2014/04/05***
Received: 6 April 2014 at 18:16 JST

Mars 2014/04/05, Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140405/XDp05Apr14.jpg

○····***Subject: Mars 2014/04/09***
Received : 10 April 2014 at 03:46 JST

Mars 2014/04/09, Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140409/XDp09Apr14.jpg

○····***Subject: Mars 2014/04/10***
Received: 11 April 2014 at 04:30 JST

Mars 2014/04/10, Best regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140410/XDp10Apr14.jpg

○····***Subject: Mars 2014/04/14 - 19***
Received: 20 April 2014 at 20:59 JST

Mars 2014/04/14 - 19, Very poor seeing....

Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140414/XDp14Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140419/XDp19Apr14.jpg

Xavier DUPONT (Saint-Roch, FRANCE)

●·····***Subject: Mars 2014/03/28 poor seeing***
Received: 2 April 2014 at 16:00 JST

Hello this is Mars under poor seeing. Clouds over Tharsis. Also over Olympus, Ascraeus & Pavonis Montes.Clouds over Alba patera. Ierne & Lemuria NPC remanents. Solis Lacus is coming into view.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140328/MKd28Mar14.jpg

○····***Subject: Mars 2014/03/31***
Received: 3 April 2014 at 04:39 JST

Hello all, as we approach opposition we can see the planet in greater detail. Clouds near west, south and east limb. Is this a global thin haze more distinct there?

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140331/MKd31Mar14.jpg

Clouds around the top of Olympus! Also in Ascraeus mons eae Alba patera. Clouds over Tharsis. NPC has shrunk and Ierne remanents and Chasma Boreale are visible.

http://www.astrovox.gr/forum/album_pic.php?pic_id=17618

○·····***Subject: Mars 2014/04/02***
Received: 9 April 2014 at 16:24 JST

Hello here is an obs. under average conditions. Some southern clouds and W of Solis Lacus are visible. ECB clouds. Dense clouds over Tharsis & Lunæ Planum. Chasma boreale is barely visible.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140402/MKd02Apr14.jpg

○····***Subject: Mars 2014/04/08 Opposition***
Received: 9 April 2014 at 20:19 JST

Hello, yesterday Mars was at opposition and in

Athens we had good seeing conditions. On the image we can see thin ECB and some southern clouds. Morning dense clouds over Tharsis. Afternoon clouds over Oerra Sabaea. Clouds also over Tempe Terra. Chasma Boreale is visible.

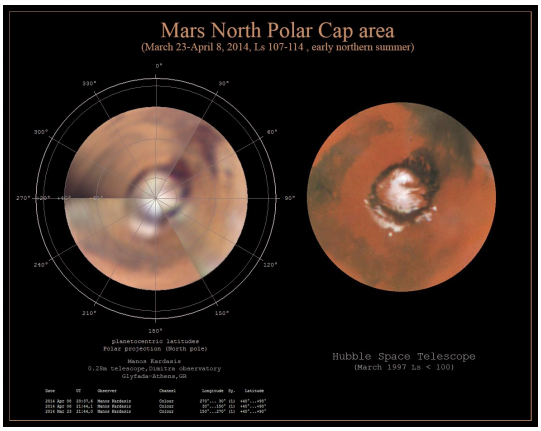
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/MKd08Apr14.jpg

○····***Subject: Mars NPC complete area map***
Received: 10 April 2014 at 21:36 JST

Here is an attempt to present the 2014 Mars NPC. The recession of the cap (main body) caused by the North hemisphere summer is great and aproximately at: L1 -- B'

000 - 78N, 090 - 79N, 180 - 81N, 270 - 83N

The remanents at Lemuria B' 74 extend between 180-235 and at Ierne B' 75 between 100-135. I made a comparison with an HST 1997 image in similar season (a little earlier)



There are some similarities. Of course we can conclude with safe results by measuring many images. These results are just an approach.

http://www.astrovox.gr/forum/album_pic.php?pic_id=17638

○····***Subject: Mars 2014/04/06***
Received: 19 April 2014 at 01:41 JST

Hello, here is an image under average conditions showing ECB, Arabia Terra, Lunae Planum, Tharsis clouds. Clouds around the 3 volcanoes and Olympus with the peaks over the clouds. Some clouds also in Alba Patera, Syria Planum. Some Southern hazes are also visible. NPC with Chasma Boreale and ice remnents.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140406/MKd06Apr14.jpg

○····***Subject: Mars 2014/04/12***
Received: 22 April 2014 at 16:45 JST

Hello here is an image under very good conditions. Thin ECB, morning-evening clouds and southern hazes. Clouds over Aeria, west of Eden and Chryse. Syrtis blue cloud. Very dark Acidalia Planitia.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140412/MKd12Apr14.jpg

Manos KARDASIS (Glyfada-Athens, GREECE)

●·····***Subject: Mars M140401 ishibashi***
Received: 2 April 2014 at 17:09 JST

This is ISHIBASHI. Somehow markings and clouds are shot. The evening Hellas is very bright. It seems the northern part of Syrtis Mj is covered by the evening white mist. The morning side is covered by a vast mist.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/Is01Apr14.jpg

○····***Subject: Mars M140407 ishibashi***
Received: 8 April 2014 at 16:03 JST

This is ISHIBASHI. We must wait for a while to get a stable seeing after opening the dome. The evening mist is near Elysium? The morning mist is visible near the equator. Hellas is white as usual.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140407/Is07Apr14.jpg

○····***Subject: Mars M140408 ishibashi***
Received: 9 April 2014 at 19:12 JST

This is ISHIBASHI. Hellas is as bright as was yesterday. The seemingly evening mist stays near Elysium. Is it a morning mist at the right hand end of the area of the equator (at 14h49m)?

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/Is08Apr14.jpg

○····***Subject: Mars, M140414 ishibashi***
Received: 15 April 2014 at 21:05 JST

This is ISHIBASHI. I met with a little better seeing at last. The dark fringe of the npc is visible and the outside of the fringe shows a white aspect. The evening mist looks going southward to the equator. Elysium's cloud gradually increased its whiteness.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140414/Is14Apr14.jpg

○····***Subject: Mars, M140423 ishibashi***
Received: 24 April 2014 at 09:38 JST

This is ISHIBASHI writing. The dark fringe to the left side of the npc is conspicuous. Nix Olympica is near the centre and looks white as well as the cloud of Tharsis Montes which precedes Nix

Olympica. Furthermore a vast evening mist is there at the terminator side. Its upper left shows Agathodaemon, and above it Solis L is visible. Soon I was clouded and so just one image I got.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140423/Is23Apr14.jpg

○····***Subject: Mars M140424 ishibashi***
Received: 25 April 2014 at 12:17 JST

This is ISHIBASHI. The seeing went worse at the latter part of the session. But Olympus Mons gradually became whiter. Here and there are several mist patches. Solis Lacus and Agathodaemon went to the rear side.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140424/Is24Apr14.jpg

○····***Subject: Mars M140426 ishibashi***
Received: 27 April 2014 at 11:45 JST

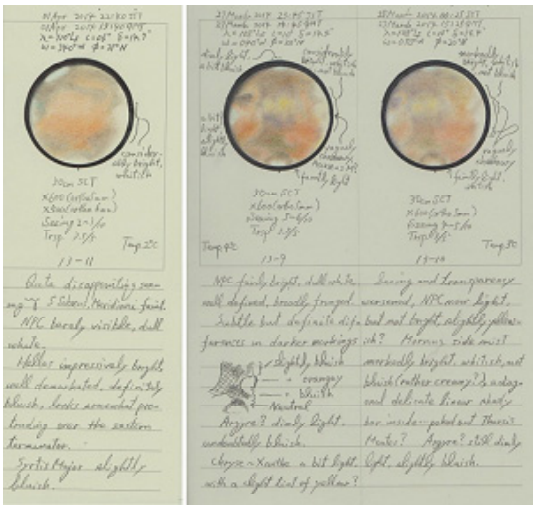
This is ISHIBASHI. At the latter part of the session, the seeing improved. Solis L and M Acidalium came into sight. The npc looks split.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140426/Is26Apr14.jpg

Tsutomu ISHIBASHI (Kanagawa, JAPAN)

●·····***Subject: Color drawings of Mars***
Received: 2 April 2014 at 23:21 JST

Dear Dr. Minami, I have attached here my latest drawings of Mars. Lately, almost every night we had unusually poor seeing for this season, very much frustrating too see Martian image deteriorating as it approaches the culmination.



Martian season is already for λ=110°Ls, and the north polar cyclones ("spiral clouds" *à la* Christophe Pellier) are expected to emerge, and the good longitudinal zone is going away from Japan to the countries overseas! GOOD Seeing!

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140327/Kn27Mar14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/Kn01Apr14.jpg

○····***Subject: Oppoaition month***
Received: 4 April 2014 at 22:16 JST

Dear Dr. Minami, and all: This apparition's opposition is close at hand, but I've been pretty frustrated with the terrible seeing in our place. And it's so relieving to "observe" Mars with CMO colleagues' splended images and drawings every day.

Now the phase angle of Sun-Mars-Earth is as small as six degrees, we are entering the season for "Nix Olympica", a superficial phenomenon obsevable only at the near-opposition period. John SUSSENBACH's excellent image set on 01 April 2014 22h45m GMT seems to show the flank of Olympus Mons as a silvery ring, brightened by the opposition effect. The local Martian hour of Olympus Mons on *JSb*'s image might have been around 11 hrs when the developement of orographic cloud over the largest/highest volcano was still weak as shown on the B component of the image set. And the R image penetrated the thin cloud to show the brightened surface of Olympus Mons as a nice tiny ring (reflected on the RGB image). Richard BOSMAN's fine image set taken some twenty minutes after *JSb*'s (*RBs*'s data of observing time 00h17m UT on 02 April is probably a mistake for 23h17m on 01 April), the local Martian hour was already around 11h30m when the Olympus Mons orography had grown a bit over the volcano's western half, but the opposition-effect-shiny-ring might be still visible at the eastern half on the RGB, R and B.

I am looking forward to seeing the Nix Olympica again a few days after this coming opposition , may be hard from Japan, as Olympus Mons would be proceeding well into the local afternoon to grow heavy orographic clouds by the time we get to observe the red planet!

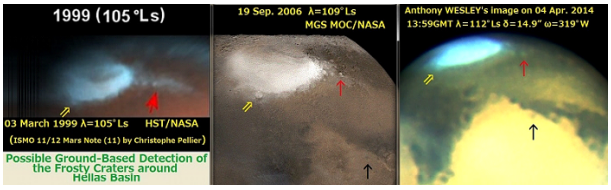
Good Seeing with Excellent Scopes!

Editor's Remark: (6 April): This email of Reiichi KONNAÏ tells an important point about the aspect of Olym-

pus Mons at the opposition time. Olympus Mons is well known as a white ball covered by the so-called orographic cloud, but it has also been long known as Nix Olympica as a reflecting spot when the planet is at opposition (when the phase angle is smaller than 8 degrees). As to a possible confusion, see "Nix Olympica Misunderstanding" in CMO/ISMO #389: at page Ser3-0185:
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmomn4/CMO389.pdf
Related with this, the article ISMO 11/12 Mars Note (4) at page Ser3-380 in CMO/ISMO #402 should be checked.
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmomn4/CMO402.pdf

○····***Subject: Detection of Martian frosty craters?***
Received: 6 April 2014 at 14:35 JST

Dear Dr. Minami, All areoholics, I believe Antho-

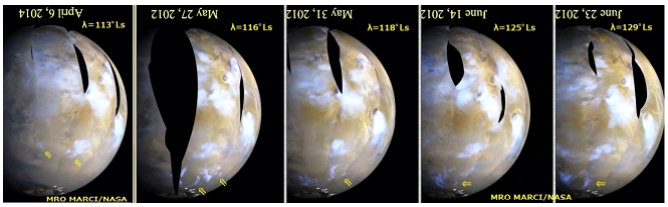


ny WESLEY's superb image on 04 April 2014 at 13:59 GMT clearly shows the frost-filled Hellas (maybe partially cloud-filled), because the basin appears fully bright with a sharp edge. And, please find attached a montage, frosted Terby crater (174km across, yellow arrows) just off the northern edge of Hellas is just discernable on the *AWs*'s image. Furthermore, medium-size frosty craters are spotted west of Hellas (ones of them are red-arrowed), probably associated with the "Escaping Cloud from Hellas". These findings strongly suggest the mature ground frost formation over the gigantic basin (read Christophe PELLIER's fine articles): "*Winter State of the Hellas Basin* (ISMO 11/12 Mars Note (13)) ", in
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmomn4/CMO410.pdf
"*White cloud escaping from Hellas at winter solstice* ", in
http://www.hida.kyoto-u.ac.jp/~cmo/cmomn4/CMO409.pdf

On the montage, indicated by a black arrow is the "*Fons near Sigeus Portus*", a dark spot about one hundred km across overlapping a small crater lying some five hundred km directly east of the 451km diameter crater Schiaparelli. Refer to 07/08 CMO Note (14) Fons near Sigeus Portus :
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmomn5/CMO360.pdf
This dark spot was visually just visible in 1971 favorable opposition with my 25 cm Newtonian when the apparent diameter of the red planet was almost 25 arc-seconds(!). It's amazing that the present-day planetary imaging/processing technology is surpassing the classical optical resolution of the telescope, explicitly showing a tiny dark patch of only 0.22" across on the 14.9" apparent diameter Martian disk! Good Seeing!

○····***Subject: Terminator protrusion?***
Received: 9 April 2014 at 17:33 JST

Dear Dr. Minami, Christophe: The protrusion findings on the p. limbs on Christophe's 7/8 April 2014 images are most interesting! I noticed on the first set of images (23:41.2RGB and the components) that the tip (most protruded point) of the protrusion is not just the eastern side of the bright cloud mass (probably over Sinus Meridiani region), but seems to be located a little bit northerly, where the area just inside of the protrusion is not so bright ....suggesting the protrusion is unlikely to be an artifact caused by the processing ("irradiation illusion" like....). Look forward to other observers' images at Europian longitudes.

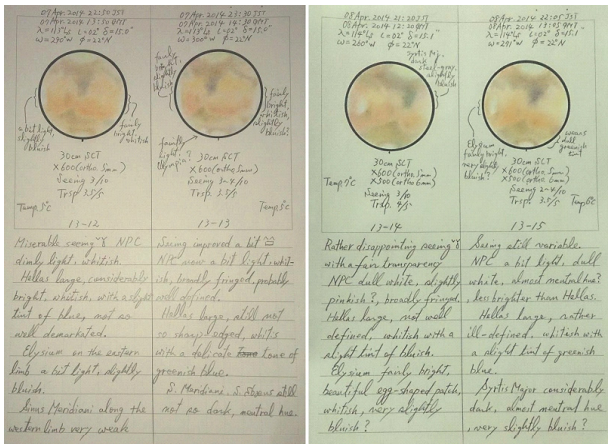


Another topic, but please find attached a montage showing "*A Grin without a Cat, or Afternoon Remnants of the North Polar Spiral Clouds (cyclones)*". The leftmost MRO MARCI image on 6 April 2014 may show the emergense of the spiral clouds (yellow arrows) in this apparition, though may be sporadic cloudy patches assosiated with the seasonal Alba cloud activity as their locations are a bit southerly. But I believe ground-based observers will soon get fantastic images of the spiral clouds with their clear eyes, and I myself hopefully want to catch them visually! Good Seeing!

○····***Subject: Drawings of Mars***
Received: 13 April 2014 at 00:02 JST

Dear Dr. Minami, I am attaching here my piled-up drawings. My scanner/printer hasn't been work

ing well at all these days, so that I had to use my digital camera to make files to submit my observation. Now I am recovering from a bad cold (not the flu, luckily) to get back to work and observation!



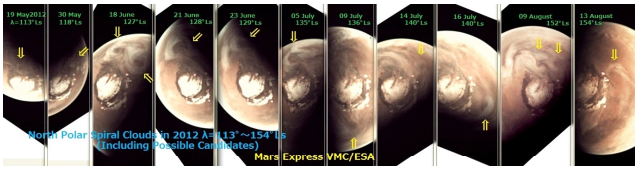
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140407/Kn07Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/Kn08Apr14.jpg

Clear Skies with Good Seeing!

○····***Subject: North Polar Spiral Clouds in 2012***
Received: 13 April 2014 at 16:24 JST

Dear Dr. Minami, Christophe, all, Please find attached a montage from Mars Express VMC/ESA images showing North Polar Spiral Clouds (though including possible/questionable candidates, even in the "out of place" longitude range). For each image, the entrance/exit of Chasma Boreale is centered on the southern edge of NPC for the better orientation for the 050°W line of longitude. Some show quite mature spiral structures often with twin shapes in the morning side, and others might have been the afternoon remnants.

My PC/scanner/printer system seems to be going

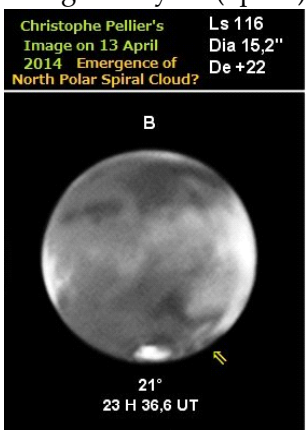


a bit mad in this important period, maybe I have to purchase a new one soon!

Clear Skies with Good Seeing!

○····***Subject: Am I being too hasty?***
Received: 16 April 2014 at 09:16 JST

Hi Christophe, Excellent image sets as always! Though it's in the "critical zone in a processed planetary image", I can't help seeing an Eyed (Spiral) White Cloud here!



Best Wishes,

○····***Subject: Drawings of Mars***
Received: 17 April 2014 at 23:57 JST

Dear Dr. Minami, I have attached my latest drawings of Mars. I have been adjusting my scanner with its "professional mode", and lost my way in the labyrinth! How can I reproduce the touch of my color drawings!?

Syrtis Major at the dawn terminator definitely looked light sky blue, which reminded me of my old question "why does the Martian blue cloud/mist look blue?" Clear Skies with Good Seeing!

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140409/Kn09Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140413/Kn13Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140414/Kn14Apr14.jpg

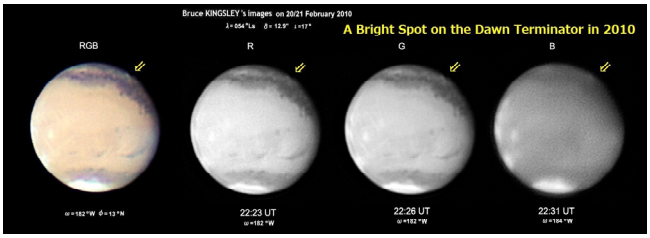
○····***Subject: Limb protrusion***
Received: 23 April 2014 at 22:31 JST

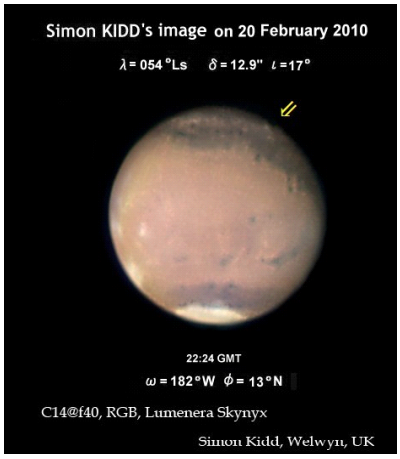
Dear Dr. Minami, Christophe, all, On the 17 April 2014 images introduced by Christophe (whose observations?), a cloudy protrusion is definitely recorded almost at the same location as shown on the first set of the image series on 7/8 April by Christophe. These protruding clouds reminded me of some high altitude cloud images over the area on the daytime limb captured by the space probes from the orbits above the polar area (maybe MEX VMC....I'll review my collection of images).

Another topic, but as we have passed the opposition in this apparition, the Martian dawn terminator is now on our side, we should also watch on the morning terminator for the particular phenomena: 045~050°S line of latitude along Phæthontis~Electris~Eridania~Ausonia area for possible oc-

currence of the terminator protrusion like the ones observed in 2003 and 2012 (Christophe, Brian Combs' images on 12 April 2014 in the SAF Gallery have already recorded a terminator protrusion over Phaethontis?).

ESA's Mars Express VMC recorded an extremely bright spot with adjoining surprisingly dark well-defined shadow at the classical Electris on 29 August 2008, the spot was estimated to be 180km across, might have been a 60km thick spheroidal, floating at an altitude of 80km, with the top reaching 110km height, and the bottom staying at 50km above the ground ! (PLS attached montage.)....the season was λ=120°Ls, almost the same as now! Though the season was different, the same type/same scale of phenomenon might have been captured on 20 February 2010 at λ=054°Ls by Simon KIDDS, Bruce KINGSLEY and Damian PEACH et. al (PLS also attached images), suggesting it would be well within our imagers' reach.





We have just entered the season of the north polar spiral cloud (cyclone). According to the past observations of the white spiral cloud, it is most prominent when it first appeared on the morning terminator, then quickly dissipates as the local Martian time goes on. To follow the interesting hourly changes of the spiral clouds, "Aside of your own observing constraints," try to make at least two series if possible!" as Christophe emphasized in his opening essay "IS*MO Best Recommendation To Observe Mars*" in the CMO/ISMO #420. It seems that a numbers of CMO observers have already recorded at least the precursory fragments of the spiral clouds in the expected area. I am going to check the next release of MRO MARCI Weekly Weather Report whether some afternoon remnants of the spiral clouds still retaining something of the way they looked as eyed spirals in the morning will be shown. Clear Skies with Good Seeing to all!

Reiichi KONNAÏ (Fukushima, JAPAN)

●·····***Subject: Mo01Apr_14***
***Received**: 3 April 2014 at 03:00 JST*

Here is a set of Mars images on 1 April. This was only obtained on a better seeing condition. The evening mist covering the northern part of Syrtis Mj attracted my attention. Hellas on the evening terminator was very bright.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/Mo01Apr14.jpg

○····***Subject: Mo02,04Apr_14***
Received: 6 April 2014 at 23:49 JST

Here are Mars image sets taken on 2 & 4 April. On 2 Apr the air was a bit stable but did not continue. On 4 Apr the seeing looked very poor, but after processing the images turned out to be not so bad. Today it rained and it was cold. At night the cloud dispersed and so I tried to take, but images were terrible. From tomorrow the weather seems to turn good, I expect.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140404/Mo04Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140402/Mo02Apr14.jpg

○····***Subject: Mo7,8,9,10Apr_14.***
Received: 21 April 2014 at 02:32 JST

MINAMI-sama, I am somewhat late, but please find attached the images from 7 April until 10 April. The area of Syrtis Mj was shot when the seeing improved. I also took on 15, 16, 17 Apr. It is difficult to find the time to process, but I will try asap, and send them to you.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140407/Mo07Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/Mo08Apr14.jpg

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140409/Mo09Apr14.jpg

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140410/Mo10Apr14.jpg

○····***Subject: Mo22,23,24,26Apr_14***
Received: 30 April 2014 at 00:25 JST

Masatsugu MINAMI-sama, I am late, but here are the images from 22 Apr to 26 Apr. I seldom met with preferable seeing, and so my procedure is a series of try and error. I just prospect the images made on 22 and 24 Apr may convey some details. There remain several shots on 15, 16, 18 Apr to be processed. If the weather continues to be poorer, I may have much time to process.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140422/Mo22Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140423/Mo23Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140424/Mo24Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140426/Mo26Apr14.jpg

Yukio MORITA (Hiroshima, JAPAN)

●·····***Subject: Mars 02-04-2014 00h17 UT RGB***
Received: 3 April 2014 at 04:11 JST

Hi, Mars Tuesday, April 2. On this night, the conditions were better than normal. I could make this clean RGB image with my C14 and Basler Ace ccd and RGB filters. Beautifully to see Volcano Olympus Mons, surrounded by orographic clouds.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/RBs01Apr14.jpg

This shot shows the RGB show. R, G and B can be seen, a slight clarification that may indicate a storm. We now have two confirmation of this spot and now wait as it stand or hold it get bigger. Appendix shows the recording of yesterday's show, Mons Olympus itself comes through the clouds. (Not previously recorded this.)

higher resolution:

http://www.astrofotografie.nl/Mars-02-04-2014-00h17-UT-Bosman.html

Met Vriendelijk Groet Richard Bosman

○····***Subject: Mars 06-04-2014 23h35 UT RGB***
Received: 7 April 2014 at 03:20 JST

Hi, Mars last night, this image was taken with the new RGB filters. Unfortunately the B image of lesser quality. Nice to see Opposition effect of Olympus Mons. Mars 06-04-2014 23h35 UT RGB. Altitude: 32°

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140405/RBs05Apr14.jpg

Regards,

○····***Subject: Mars April 2014***
Received: 25 April 2014 at 04:01 JST

Hi, Mars images from april. Here the RGB in clean shape. Not what I often see in the RGB Images which are combined in P.S. and then split up as separate RGB. Celeston C14, Basler Ace CCD.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140416/RBs16Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140423/RBs23Apr14.jpg

Regards,

Richard BOSMAN
(Enschede, The NETHERLANDS)

●·····***Subject: Mars this morning April 2***
Received: 3 April 2014 at 11:13 JST

My first Mars image from Rubyvale in fairly good and steady seeing. This has been processed on my laptop so the colours etc might be a little off but it looks pretty good on my screen :-) Regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140402/AWs02Apr14.jpg
http://www.acquerra.com.au/astro/gallery/mars/20140402-135026/m20140402-135026utc.png

○····***Subject: More Mars from April 2***
Received: 3 April 2014 at 15:39 JST

Here's the obligatory follow on image that improves a little on the last one I sent out... nice resolution esp in green and blue channels. interesting red colouration around the north pole, I thought it was an artifact in my processing but I also see it on the images that Chris sent out, and the colour alignment is good in the rest of the image, so I'm inclined to believe that it's real, although I have no idea what it means. Blue cloud/frost is visible around the rim of Hellas at lower right as well as diffuse blue equatorial haze across the centre of the planet, most visible across Syrtis Major at right. Regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140402/AWs02Apr14.jpg
http://www.acquerra.com.au/astro/gallery/mars/20140402-140801/m20140402-140801utc.png

○····***Subject: Yet more Mars from April 2***
Received: 4 April 2014 at 15:30 JST

...Continuing to process data from April 2, here is an image from close to the end of the session. This time I've processed it to preserve as much of the blue cloud/haze and also paid more attention to the fine detail, so this is once more a higher res mage than those I sent earlier, and possibly a little closer to the real view. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140402/AWs02Apr14.jpg
http://www.acquerra.com.au/astro/gallery/mars/20140402-142601/m20140402-142601utc.png

○····***Subject: Mars, April 4***
Received: 5 April 2014 at 09:18 JST

Here's an image of Mars from last night, April 4, in reasonable seeing. Syrtis Major is visible at lower right, and it will become more central over the next few days from here. The north polar cap is visible as well as a cloud-filled Hellas basin.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140404/AWs04Apr14.jpg
http://www.acquerra.com.au/astro/gallery/mars/20140404-135833/m20140404-135833utc.png

○····***Subject: Mars April 8***
Received: 9 April 2014 at 10:24 JST

Hi all, here is an image of Mars from last night, April 8, from Rubyvale. Seeing was reasonable but not as steady as previous nights. Syrtis Major is still prominent at lower left, Nodus Alcyonius close to centre, and now we can see Elysium Mons covered in cloud at right. Cloud-filled Hellas still visible at the bottom of the image.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/AWs08Apr14.jpg
http://www.acquerra.com.au/astro/gallery/mars/20140408-130848/m20140408-130848utc.png

○····***Subject: Mars this morning, April 10***
Received: 11 April 2014 at 14:55 JST

Cloud last night delayed the observing session until after midnight, this image was taken in reasonable seeing at 1.38am local time. Syrtis Major is prominent at the centre of the image, with Elysium just setting at right, clouds are visible over Elysium Mons. North polar cap at top and Hellas basin full of clouds at bottom.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140410/AWs10Apr14.jpg
http://www.acquerra.com.au/astro/gallery/mars/20140410-153825/m20140410-153825utc.png

○····***Subject: Mars April 11***
Received: 12 April 2014 at 10:16 JST

Some good seeing last night around midnight with Mars transiting at 72 degrees elevation. Nice detail in the NPC, Syrtis Major to the lower left, clouds over Elysium at right and some high blue haze across the equatorial region. Blue cloud-filled Hellas at bottom left.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140411/AWs11Apr14.jpg
http://www.acquerra.com.au/astro/gallery/mars/20140411-140339/m20140411-140339utc.png

○····***Subject: Mars on opposition night April 8***
Received: 13 April 2014 at 12:59 JST

One more Mars image from a couple of days ago, on opposition night (April 8). Syrtis Major to the left of centre, Elysium Mons and cloud to the right, the shrinking north pole at top and cloud-filled Hellas basin at bottom.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/AWs08Apr14.jpg

Colours set with reference to MRO/MARCI:

http://www.msss.com/msss_images/latest_weather.html
http://www.acquerra.com.au/astro/gallery/mars/20140408-131508/m20140408-131508utc.png

○····***Subject: Mars last night April 14***
Received: 15 April 2014 at 09:31 JST

Hi all, the skies were clear again last night and the seeing reasonable at around midnight when Mars was at maximum altitude (and closest approach). The bright region of Elysium is at centre, Syrtis Major rising at left and the clouds over Olympus Mons setting on the limb at right. Equatorial high blue haze is visible across the disk and a small patch of what might be raised dust (?) can be seen obscuring a small part of the outer bright ring of the north polar cap at top. Regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140414/AWs14Apr14.jpg
http://www.acquerra.com.au/astro/gallery/mars/20140414-134755/m20140414-134755utc.png

Anthony WESLEY (NSW, AUSTRALIA)

●····***Subject: Mars 1 April 2014***

Received: 4 April 2014 at 09:53 JST

Dear Sir, Attached I send you a recent image of Mars under better seeing conditions. The details in the polar cap and in the Tharsis region are interesting. Olympus Mons stands out impressively as well as Solis Lacus. With kind regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/JSb01Apr14.jpg

○····***Subject: Two images of Mars 1 April 2014***
Received: 4 April 2014 at 17:54 JST

Dear sirs, Attached I send you two recent images of Mars taken with two different camera's under better seeing conditions. The details in the polar cap and in the Tharsis region are interesting. Olympus Mons stands out impressively as well as Solis Lacus. With kind regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/JSb01Apr14.jpg

○····***Subject: Re: Two images of Mars 1 April 2014***
Received: 5 April 2014 at 07:37 JST

Dear sirs, Thank you very much for the inter-

esting comments on my images. I indeed noticed the ring and indeed the orographic clouds were not very disturbing yet at 22.45 UT. Also in my image of 22.19UT a hint of the ring is seen, but the seeing conditions were then a little bit less favourable. Dr. Konnaï in his mail also refers to the image of Richard Bosman and guessed that the date and time were incorrect. I contacted Richard and he agrees that he made a mistake, because of the start of the summertime in our country. As Dr Konnaï already suggested the actual time is 1 April 23.17 UT. The ring structure does raise the question what its origin is. With kind regards,

○····***Subject: The opposition effect of OM on 6 april 2014***
Received: 7 April 2014 at 03:29 JST

Dear Masatsugu, Attached find some recent Mars images showing the opposite effect of Mons Olympus. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140406/JSb06Apr14.jpg

○····***Subject: Mars 12 April 2014***
Received: 16 April 2014 at 16:08 JST

Dear Sir, Attached find my Mars image of 12 April 2014. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140412/JSb12Apr14.jpg

○····***Subject: Mars 19 April 2014***
Received: 22 April 2014 at 11:38 JST

Dear Friends, Attached find my recent Mars images. The resolution is reasonable; note the presence of Huygens and the clouds above Hellas.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140419/JSb19Apr14.jpg

With kind regards

○····***Subject: Mars 22 April 2014***
Received: 24 April 2014 at 06:38 JST

Dear Friends, Attached find my recent Mars image. The resolution is reasonable; note the presence of Huygens and the clouds above Hellas. As a matter of fact it is exactly the same CM as in my image of 19 April. With kind regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140422/JSb22Apr14.jpg

John SUSSENBACH
(Houten, the NETHERLANDS)

●·····***Subject: Mars - March 25th, 06:10ut***
Received: 6 April 2014 at 02:00 JST

Hi Mr. Minami and All!, Here is my latest processed session from march 25th under ideal conditions.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140325/EMr25Mar14.jpg

○····***Subject: Mars - April 1st, 04:27ut***
Received: 6 April 2014 at 02:04 JST

Hi Mr. Minami and All!, Here I submit my latest session under below average conditions from April 1st. Clear Skies to All!

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/EMr01Apr14.jpg

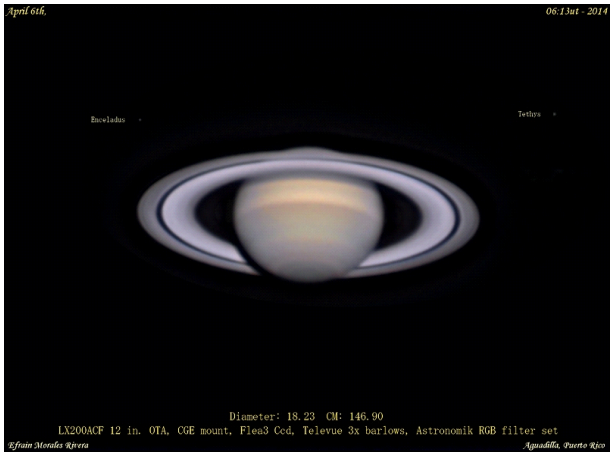
○····***Subject: Mars- April 9th, 03:58ut***
Received: 12 April 2014 at 11:19 JST

Hi Mr. Minami and All!, Here i submit my latest session from April 9th.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140409/EMr09Apr14.jpg

Also my latest session of the ring planet Saturn.

Clear Skies to All!



○····***Subject: Mars - April 12th, 03:21ut***
Received: 13 April 2014 at 12:41 JST

Hi Mr. Minami and All!, My most recent session on april 12th under average conditions.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140412/EMr12Apr14.jpg

○····***Subject: Mars - April 14th, 03:08ut***
Received: 15 April 2014 at 11:38 JST

Hi Mr. Minami and All!, Here is my session from April 14th, 03:08ut at above average conditions.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140414/EMr14Apr14.jpg

Clear Skies to All!.

○····***Subject: Mars - April 19th, 03:29ut***
Received: 20 April 2014 at 04:29 JST

Hi Mr. Minami and All, My latest session of Mars on April 19th. Clear Skies to All!.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140419/EMr19Apr14.jpg

○····***Subject: Mars - April 21st, 04:45ut***

Received: 22 April 2014 at 15:18 JST

Hi Mr. Minami and All, Here is my latest session from the 21st of april. A region of interest as the same session from the 19th (submitted) is much pronounce in the Scandia Colles region as mentioned by Christophe P. earlier. Clear Skies to All!

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140421/EMr21Apr14.jpg

○····***Subject: Mars - April 17th, 23rd***
Received: 25 April 2014 at 06:06 JST

Hi Mr. Minami and All!, Here I submit my sessions from april 17th, 23rd. Clear Skies!.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140417/EMr17Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140423/EMr23Apr14.jpg

○····***Subject: Mars - April 25th, 02:42ut***
Received: 27 April 2014 at 01:20 JST

Hi Mr. Minami and All!, My latest processed session from the 25th of april. and a belated session from the 15th and a montage of images from a region of interest (Acidalia/ Scandia regions).

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140415/EMr15Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140425/EMr25Apr14.jpg

Clear Skies !.

○····***Subject: Mars - April 29th, 03:09ut***
Received: 30 April 2014 at 15:40 JST

Hi Mr. Minami and All!, Here I submit my latest session from april 29th, 03:09ut. Possible dust in Arabia Terra region?, Hard to tell being close to the cloud mass leading edge. Clear Skies to All!.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140429/EMr29Apr14.jpg

Efrain MORALES RIVERA

(Aguadilla, PUERTO RICO)

●·····***Subject: MARS IMAGES 4-4-2014***
Received: 6 April 2014 at 03:46 JST

Hi Guys an unexpected but welcome clearing this evening , seeing was jittery but quite detailed.

Mars was a very nice sight on screen from the colour cam feed. The Martian blue clouds stood out very well..

Quite a lot of changes during the 1/2 hour of rotation , and indeed from Damian's 2005 Map.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140404/DTy04Apr14.jpg

Best wishes

○····***Subject: mars 7/8th-April-2014***
Received: 14 April 2014 at 00:12 JST

Hi Guys here are a couple of mars from 7 and 8th April. Also is a 3 frame animation from the 8th from the attached 3 image file. I sent it to myself as a test and it ran ok embedded in the mail as well as windows media player. It just show the volcanoes rising out of the mists. Best wishes

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140407/DTy07Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/DTy08Apr14.jpg

○····***Subject: Mars 11th-April-2014***
Received: 14 April 2014 at 17:09 JST

Hi Guys another clear one on the 11th seeing not too bad for the altitude. Since then we have had really bad jet stream where Mars has looked more like a candle flame! Its due to pass today and we have a clear one too. Perhaps the solar seeing will be good, often an indicator of things to come later. This view of Mars reminds me it is the God of War, and also of a Halloween pumpkin. Perhaps the humble pumpkin could be the standard Martian colour reference? Best wishes

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140411/DTy11Apr14.jpg

○····***Subject: Mars images 14/15-April-2014***
Received: 20 April 2014 at 11:15 JST

Hi Guys here are a couple of Mars batches from the decent seeing this week, considering the 34 degree altitude and continually dropping rural temperature. Best wishes

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140414/DTy14Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140415/DTy15Apr14.jpg

○····***Subject: Mars Images 16th/18th-April-2014***
Received: 22 April 2014 at 23:01 JST

Hi Guys. Ok Richard, here is another batch of Mars data for you, 3 from the 16th and one from the 18th. Best wishes

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140416/DTy16Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140418/DTy18Apr14.jpg

○····***Subject: Mars 19-Apr-2014***
Received: 25 April 2014 at 02:52 JST

Hi Guys here is a trio of images taken in average seeing. The 3000 frame 58fps avis were processed in Autostakkert, and the 9 resultant images spanning about 9 minutes, were then stacked in regi 6. (ok IDB ?) Best wishes

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140419/DTy19Apr14.jpg

○····***Subject: Mars 26-Apr-2014***

Received: 28 April 2014 at 07:12 JST

Hi Guys I just managed one and a half imaging runs on the 26th before the cloud won. I centred Mars in the eyepiece before plugging in the camera and was surprised to observe what turned out to be the Elysium Cloud . It was very obvious. I don't use eyepieces much (except in my PST) as I see more on screen, this was a nice surprise. Best wishes

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140426/DTy26Apr14.jpg

Dave TYLER (Bucks, the UK)

●·····***Subject: Mars images - April 1, 2 & 3***
Received: 6 April 2014 at 09:02 JST

Gentlemen, Here are images from April 1, 2 and 3. Seeing was poor all three nights here. Regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/PGc01Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140402/PGc02Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140403/PGc03Apr14.jpg

○····***Subject: Mars image - April 6, 2014***
Received: 7 April 2014 at 01:00 JST

Gentlemen, Seeing was no better than average for this set of images. Regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140406/PGc06Apr14.jpg

○····***Subject: Mars image - April 10***
Received: 11 April 2014 at 10:48 JST

Gentlemen, Attached is a set of Mars images from April 10. Seeing was around average, but better than in recent weeks. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140410/PGc10Apr14.jpg

○····***Subject: Mars image - April 17***
Received: 18 April 2014 at 10:39 JST

Gentlemen, Finally, some reasonably good seeing here, although it still wasn't great. A very cloudy Mars. I don't ever remember seeing so many cloud features. Regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140417/PGc17Apr14.jpg

○····***Subject: Mars - April 18***
Received: 20 April 2014 at 08:23 JST

Gentlemen, Attached are some images from April 18. Seeing was near average. I also included an animated gif composition showing Mars in IR and blue over a period of nearly three hours. Regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140418/PGc18Apr14.jpg

○····***Subject: Mars image - April 21***
Received: 24 April 2014 at 11:23 JST

Gentlemen, The seeing was very good on April 21. This is probably my best image yet for this apparition. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140421/PGc21Apr14.jpg

○····***Subject: Mars image - April 22***
Received: 25 April 2014 at 10:18 JST

Gentlemen, Attached is a set of images from April 22. Seeing was about average. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140422/PGc22Apr14.jpg

○····***Subject: Mars image - April 25***
Received: 27 April 2014 at 03:54 JST

Gentlemen, Attached is a set of images from April 25. Seeing was poor. Regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140425/PGc25Apr14.jpg

○····***Subject: Mars image - April 28***
Received: 30 April 2014 at 12:33 JST

Gentlemen, This set of images is from April 28. Seeing was less than average. Transparency was good. Regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140428/PGc28Apr14.jpg

Peter GORCZYNSKI (Oxford, CT, the USA)

●·····***Subject: Mars April 5, 2014***
Received: 6 April 2014 at 12:29 JST

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140405/JKz05Apr14.jpg

John KAZANAS (Melbourne, AUSTRALIA)

●·····***Subject: Mars 5th April UT***
Received: 6 April 2014 at 19:47 JST

Here is the last image of a number taken on the 5th April in good seeing. The other images will follow when time permits for processing. Best wishes

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140405/MVl05Apr14.jpg

○····***Subject: Collection of images 5th April UT***
Received: 11 April 2014 at 23:27 JST

Please find attached a collection of all images taken by me on the 5th April UT. The seeing varied from fair (early) to very good (late). Best wishes,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140405/MVl05Apr14.jpg

○····***Subject: Some Mars from the 13th April UT***
Received: 18 April 2014 at 10:14 JST

Poor seeing conditions on the 13th April. This is a collection of images taken on the night. Nice morning haze over Syrtis M. More to follow from

the 14th & 15th. Best wishes

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140413/MVl13Apr14.jpg

○····***Subject: Fwd: Some Mars from the 13th April UT***
Received: 18 April 2014 at 19:15 JST

Apologies, the image that I sent earlier has an error in the first line of UT shown, Attached is an ammended version. Best wishes

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140413/MVl13Apr14.jpg

○····***Subject: Mars 14th April UT***
Received: 19 April 2014 at 22:41 JST

Here are some images of Mars taken on the 14th April UT in fair seeing. Best wishes

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140414/MVl14Apr14.jpg

○····***Subject: Collection of Mars images from the 15th April***
Received: 22 April 2014 at 19:27 JST

Attached is a collection of Mars images taken on the 15th April in fair (early) to good (late) seeing.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140415/MVl15Apr14.jpg

Best wishes

Maurice VALIMBERTI
(Melbourne, AUSTRALIA)

●·····***Subject: Mars 2 April***
Received: 7 April 2014 at 08:09 JST

Hi All, I have attached RGB Mars images from 2 April. A bright Bright Orographic is seen to the lee (west) of the peak of Olympus Mons. Elysium clouds are merging with AM limb hazes. Note that the Hyblaeus Extension appears to have diminished in size and intensity from previous apparitions. Trivium-Cerberus remains very weak. Olympia is prominent. Best,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140402/DPk02Apr14.jpg

Donald PARKER (Coral Gables, FL, the USA)

●·····***Subject: Mars, 06 Apr 2014***
Received: 7 April 2014 at 19:02 JST

Hi everyone, The attached RGB set was captured in mediocre seeing. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140406/SBd06Apr14.jpg

○····***Subject: Mars, 13 Apr 2014***
Received: 14 April 2014 at 18:15 JST

Hi everyone, The attached image set was captured in poor to mediocre seeing. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140413/SBd13Apr14.jpg

○····***Subject: Mars, 14th of April***
Received: 15 April 2014 at 18:58 JST

Hi everyone, Here's another set captured in poor to mediocre seeing. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140414/SBd14Apr14.jpg

Stefan BUDA (Melbourne, AUSTRALIA)

●·····***Subject: MARS - APRIL 1, 2014 - Poor seeing***
Received: 8 April 2014 at 11:17 JST

Hi Sir, These are my Mars images from April 1, 2014 in poor seeing conditions.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140401/FWl01Apr14.jpg

○····***Subject: MARS - April 03, 2014 Average seeing***
Received: 20 April 2014 at 21:47 JST

Hi, These are my Mars observations from April 03, 2014.. Average seeing.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140403/FWl03Apr14.jpg

○····***Subject: MARS - April 22, 2014 Turbulent seeing***
Received: 30 April 2014 at 10:56 JST

My Mars images from April 22, 2014 in very turbulent conditions.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140422/FWl22Apr14.jpg

Freddy WILLEMS (Saint Johns, FL, the USA)

●·····***Subject: Mars images 7-8 March 2014***
Received: 9 April 2014 at 07:06 JST

Hi all, Fair seeing and difficult processing. There is a protruding cloud on the p.limb, it may be a regular cloud but it remembers me the aspect of the high altitude cloud of 2012 some days before its effective discovery.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140407/CPl07Apr14.jpg

Note also how fast the Tharsis morning clouds evolve! Best wishes,

○····***Subject: Re: Terminator protrusion?***
Received: 9 April 2014 at 18:55 JST

Dear Reiichi, I have been able to observe the same longitudes last night under better seeing, so let's see if it is there again or not... Many thanks for the set of images ! It seems that spiral clouds form earlier than I thought. The season λ=116°Ls will be reached next week-end and the longitudes will be visible from France, so I'm going to watch for it :-)) However I don't think that the 2014 strip show the same things. Spiral clouds do not shift south, but east...

○····***Subject: Mars images 8/9 April good seeing***
Received: 11 April 2014 at 04:03 JST

Hi all, Seeing went from poor to very good during the night.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/CPl08Apr14.jpg
http://www.astrosurf.com/pellier/M2014_04_08-09-CPE

Note the good B image of 00H35: the aphelion cloud belt has a mottled aspect. I have read that from spring to summer, the ACB changes its clouds from cirrus to cumulus. Who knows this is what we see here ! Best wishes

○····***Subject: Re: North Polar Spiral Clouds in 2012***
Received: 13 April 2014 at 23:52 JST

Dear Reiichi, Very interesting compilation ! Some pattern are impressive... To think again farther, I think that the activity could be linked as well to the formation of the fall polar hood at λ=180°Ls. The hood forms from spiral storm and so the cyclonic area must be active quite earlier, producing first the whitish spiral clouds...

○····***Subject: Mars images 13/14 April good seeing***
Received: 16 April 2014 at 03:33 JST

Hi all, Seeing was highly variable that night but a very good moment happened at meridian.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140413/CPl13Apr14.jpg
http://www.astrosurf.com/pellier/M2014_04_13-14-CPE

Some white streaks are visible next to the NPC where the so-called polar "cyclones" must appeared soon now but nothing is caught.

Damian, it will be up to you at Barbados on the following week! Best wishes,

○····***Subject: Re:Am I beeing too hasty?***
Received: 16 April 2014 at 16:41 JST

Dear Reiichi, This was also my reaction when I saw those streaks. However the image is not self-speaking... I'm still waiting for a big white blob ^^. The last two night seeing was very poor yet nothing was seen here. But the coming two nights should be better and they will by my last chance to chase it until the longitudes turn to the americas.Best Wishes

○····***Subject: Mars images, 16-17 April 2014***
Received: 19 April 2014 at 01:55 JST

Hi all, Fair seeing here, showing the Blue Syrtis cloud. This was my last attempt in my hunt for northern polar spiral cloud. Now it will be for observers from the America's! Good luck :) Best

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140416/CPl16Apr14.jpg
http://www.astrosurf.com/pellier/M2014_04_16-17-CPE

○····***Subject: Another martian limb projection***
Received: 23 April 2014 at 02:34 JST

Hi friends, Check this:

http://www.pbase.com/skybox/image/155326376/original

This is the same protrusion I have observed 10 days before. Now I believe more that it's a particular phenomenon... Best wishes,

○····***Subject: Re: Limb protrusion***
Received: 25 April 2014 at 18:10 JST

Dear Reiichi, Excellent work! I believe the 2010 images do show the same cloud. In 2012, it has exactly the same aspect as observed in France on the week before its discovery by Wayne Jaeschke. It confirms the tendency of this area to produce frequently protrusions. Brian Comb's images on April 12th look different to me. The bright feature is clearly inside the disk and is clearly bright in red light. This would be a dust cloud ?

Reiichi I wait for your MRO montages, we will use it for the future ISMO notes on spiral clouds. On Facebook some bresilian observers send me fantastic B images showing a clear movement of a polar front there. It looks like the activity began just when the area went out of my view so my own observations remained unclear, but at least the alerts I sent did motivate some people to observe closely the area ! Best wishes,

Christophe PELLIER (Nantes, FRANCE)

●·····***Subject: Mars 2014/04/09***
Received: 9 April 2014 at 19:26 JST

Hello, Here is Mars on 2014/04/09. The seeing was average rapidly becoming bad and the transparency was average. T = +4°C. Regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140409/JPp09Apr14.jpg

Jean-Jacques POUPEAU (Essonne, FRANCE)

●·····***Subject: Mars 2014/04/08 Opposition***
Received: 10 April 2014 at 02:54 JST

Hi all, Poor seeing & the sky was partially cloudy I took this image. PLS see it. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140407/SGh07Apr14.jpg

○····***Subject: mars.12.april***
Received: 16 April 2014 at 04:26 JST

Hi all, Poor seeing & average condition I took this image of Red-planet. PLS see it. Regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140412/SGh12Apr14.jpg

○····***Subject: mars 17. april***
Received: 20 April 2014 at 13:29 JST

Hi Guys, Finally gave us a reasonable opportunity of seeing, so I took one image. A lot of details visible. PLS see them. Regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140417/SGh17Apr14.jpg

○····***Subject: mars.25.april***
Received: 30 April 2014 at 09:52 JST

Hi all, Poor seeing & unstable atmosphere. PLS see it. Regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140425/SGh25Apr14.jpg

Sadegh GHOMIZADEH (Roudehen, IRAN)

●·····***Subject:*** B***CC Mars images 2014 Apr 05 12:37UT***
Received: 10 April 2014 at 13:04 JST

Hi, here is a set of RGB images I have collected on April 5th, 12:37 UT (23:37 PM Australian Eastern Standard time). As usual, I used an 11 inch SCT (C11) and a QHY 5L II monochrome camera with Edmund dichroic RGB set. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140405/BCr05Apr14.jpg

○····***Subject: BCC Mars images 2014 Apr 06***
Received: 10 April 2014 at 15:58 JST

Hi, here is a set of RGB images I have collected on the evening of April 6th. Two captures approximately an hour apart, 12:59UT and 14:03UT. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140406/BCr06Apr14.jpg

○····***Subject: BCC Mars images 2014 Apr 13***
Received: 19 April 2014 at 14:32 JST

Hi, here is a set of RGB images I have collected on the evening of April 13th. Two captures, 12:47UT and 14:10UT. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140413/BCr13Apr14.jpg

○····***Subject: BCC Mars images 2014 Apr 14***
Received: 19 April 2014 at 15:53 JST

Hello, here is a set of RGB images I have collected on the evening of April 14th. Two captures, 13:11 and 13:56UT. I have recorderd more but seeing deteriorated quite badly after midnight.

Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140414/BCr14Apr14.jpg

○····***Subject: BCC Mars images 2014 Apr 27***
Received: 29 April 2014 at 14:47 JST

Hello, here is a set of RGB images I have collected on the evening of April 27th. Two relatively close captures in poor to occasionally very poor seeing, 11:51UT and 12:30UT. There could be some traces of polar cloud activity, if the seeing had been a bit better it would have certainly helped. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140427/BCr27Apr14.jpg

Bratislav CURCIC (Melbourne, AUSTRALIA)

●·····***Subject: Mars 8th April***
Received: 10 April 2014 at 21:38 JST

An image of Mars from 8th April. Seeing was jittery but good detail visible at times. regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140408/PEd08Apr14.jpg

○····***Subject: Mars 15th April***
Received: 19 April 2014 at 05:35 JST

Some good seeing at last. Here are a couple of images from 15th April. Sinus Meridiani prominent.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140415/PEd15Apr14.jpg

regards

Peter EDWARDS (West Sussex, the UK)

●·····***Subject: Mars Images 2014/03/30***
Received, 11 April 2014 at 09:54 JST

Dears, I send you two images.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140330/CTr30Mar14.jpg

Comments: With a seeing that was improving throughout the night I have acquired two good pictures of Mars, to few days of the opposition. The largest apparent size and the good seeing allow to observe surface details of the planet. In the first image Elysium region is observed with abundant cloudiness in Hyblaeus Extension, near the central meridian. At North the Utopia region is observed. In the NCP Lemuria is observed quite bright near the central meridian. In the second image the region of Syrtis Major is observed and to the south the Hellas region is observed with quite bright cloudiness. Cecropia is not so bright. The images have a

time interval of 3 hours and the image quality is better in the first. Best regards,

Charles TRIANA (Bogota, COLOMBIA)
AstroExplor Observatory
www.astroexplor.org

●·····***Subject: mars sketch 09/04/2014***
Received: 11 April 2014 at 17:00 JST

Hello, here is my sketch from april 9. Greetings

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140409/KSm09Apr14.jpg

○····***Subject: mars sketch 15/04/2014***
Received; 18 April 2014 at 01:28 JST

Hello, here is my sketch from april 15. Greetings,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140415/KSm15Apr14.jpg

○····***Subject: mars sketch 22/04/2014***
Received: 24 April 2014 at 16:34 JST

Hello, here is my sketch from april 22. Greetings,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140422/KSm22Apr14.jpg

Kris SMET (Bornem, BELGIUM)

●·····***Subject: Mars: April 6, 2014***
Received: 12 April 2014 at 11:27 JST

Hi - I have attached my Mars images of April 6, 2014 to be posted. Thanks,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140406/FMl06Apr14.jpg

○····***Subject: Mars: April 10, 2014***
Received: 12 April 2014 at 11:28 JST

Hi - I have attached my Mars images of April 10, 2014 to be posted. Thanks,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140410/FMl10Apr14.jpg

○····***Subject: Mars: April 17, 2014***
Received: 18 April 2014 at 13:51 JST

Hi - I have attached my latest images of Mars April 17, 2014. Thanks

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140417/FMl17Apr14.jpg

○····***Subject: Mars: April 20, 2014***
Received: 24 April 2014 at 02:30 JST

Hi -I have attached my images of Mars April 20, 2014 to be posted. Thanks

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140420/FMl20Apr14.jpg

○····***Subject: Mars: April 22, 2014***
Received: 24 April 2014 at 02:32 JST

Hi -I have attached my latest images of Mars April 22, 2014 to be posted. Thanks

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140422/FMl22Apr14.jpg

Frank J MELILLO (Holtsville, NY, the USA)

●·····***Subject: Bates Mars 04212014***
Received: 12 April 2014 at 14:43 JST

Mars is round with many white clouds at 450×.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140412/DBt12Apr14.jpg

○····***Subject: Bates Mars Image 04/16/2014***
Received: 17 April 2014 at 11:09 JST

See enclosed from 04/16/2014. Thanks!

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140416/DBt16Apr14.jpg

Notes: Image processed minimally to look like eyepiece image at 450×.

○····***Subject: Bates Mars 04192014 03_34UT***
Received: 19 April 2014 at 14:49 JST

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140419/DBt19Apr14.jpg

See enclosed: Seeing: (IV.) Poor seeing, constant troublesome undulations of the image.

○····***Subject: Bates mars 04202014***
Received: 20 April 2014 at 14:39 JST

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140420/DBt20Apr14.jpg

See enclosed: Seeing: 2.(II.) Slight quivering of the image with moments of calm lasting several seconds. Notes: Hazy, yet still conditions. At 450× albedo features clear, as well as polar cap.

○····***Subject: Bates Mars 04/25/2014***
Received: 26 April 2014 at 13:10 JST

My friends: Mars under good seeing from south Texas USA.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140425/DBt25Apr14.jpg

Notes: Albedo markings of Syrtus Major clearly visible. Haze in Hellas Basin. Polar cap appears split in tow pieces at 450×. All the best,

Don R BATES (Houston, TX, the USA)

●·····***Subject: Mars 9th April 2014***
Received: 12 April 2014 at 22:09 JST

Hi, My first Mars image of this apparition taken in fair seeing between small gaps in the cloud..... wouldn't have been possible with mono imaging but the colour camera made the most of the opportunities. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140409/MLw09Apr14.jpg

○····***Subject: Mars 15th April 2014***
Received: 17 April 2014 at 07:24 JST

Hi, Another Mars image taken in reasonable seeing last night with Sinus Meridiani right on the meridian. Details on image. Best regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140415/MLw15Apr14.jpg

○····*Subject: Mars 28th April 2014*
Received: 30 April 2014 at 08:01 JST

Hi, Mars in moderately poor seeing last night with Elysium cloud near the meridian. Details are on the image. Best regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140428/MLw28Apr14.jpg

Martin LEWIS (St.Albans, the UK)

●····*Subject: Mars April 6 and 15*
Received: 16 April 2014 at 22:06 JST

Hello Mr. Murakami: Images of last days 6 and 15

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140415/JSc15Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140406/JSc06Apr14.jpg

My best wishes

Jesús R SÁNCHEZ (SPAIN)

●····*Subject: Mars images 2014 Feb 21 to April 18*
Received: 20 April 2014 at 09:39 JST

Dear Mars observers, In order to save "postage" I am sending all my Mars images taken so far this apparition in one go. They were taken with various filter combinations, as detailed, but all with a C14 (modified with Es Reid spherochromaticism corrector), 3× Televue Barlow, Pierro Astro dispersion corrector, and Flea 3 camera.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/index_DAr.html

David ARDITTI (Edgware, Middlesex, the UK)

●····*Subject: Mars, 2014-04-22 21:49 UTC CM 276.4*
Received: 24 April 2014 at 05:06 JST

Hi all, An unexpected clearish evening on the 22nd, with a moderate seeing giving a great view of Mars with SM nicely positioned at present.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140422/PLw22Apr14.jpg
http://www.digitalsky.org.uk/Mars/2014-04-22-2149_Mars_1000.jpg

Best regards,

Pete LAWRENCE (Selsey, WS, the UK)

●····*Subject: Mars observing report*
Received: 25 April 2014 at 06:45 JST

Hi Don, Well, I'm later than ever, but here's my first Mars observing report of this apparition. I had wanted to get started in February, but between lots of travel, company at home and bad weather when I was able to observe, that just didn't happen. This is the first observation this month where I actually saw enough to draw. .....

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140424/JAl24Apr14.jpg

Hope all is well with you. Regards,

Jay ALBERT (Lack Worth, FL, the USA)

●····*Subject: hi*
Received: 3 May 2014 21:26:59 -0400

Dear Masatsugu, I was very glad to see that you were able to observe Mars in March. Your Parkinson's problems with the pencils "hit me close to home." ..... Best wishes

Samuel WHITBY (VA, the USA)

☆ ☆ ☆

International Society of the Mars Observers (ISMO)

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CMO #422/ ISMO #48 (25 May 2014)

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

☆ *Any e-mail to CMO/ISMO including the image files is acknowledged if addressed to*

cmo@mars.dti.ne.jp (Masami MURAKAMI in Yokohama)

vzv03210@nifty.com (Masatsugu MINAMI at Mikuni-Sakai, Fukui)

☆ *Usual mails to the CMO are acknowledged if addressed to*

Dr Masatsugu MINAMI, 3-6-74 Midori-ga-Oka, Mikuni, Sakai City, Fukui, 913-0048 JAPAN