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CMO/ISMO 2013/14 Mars Report #10

2013/2014 Mars Observations During the First Half of May 2014

The planet Mars, already finished its closest approach to the Earth on 14 April 2014 with a maximal angular diameter δ =15.2", was moving backward in the Vir constellation during the first half of May 2014 when the angular diameter went down from δ =14.5" to 13.3". The apparent declination was around 3°S. The phase angle ι increased from ι =18° to ι =27° implying the augmentation of the defect of illumination. The Martian season proceeded from λ =124°Ls to λ =131°Ls, and tilt φ was from φ =24°N to 25°N: That is, the northern hemisphere continued to be observed. The season implied the brisk activity at the arctic region to the north of M Acidalium, and as expected on 1 May an arctic spiral cloud was detected by David WELDRAKE (*DWr*) in Australia and Yukio MORITA (*Mo*) in Japan. Then the activity of an arctic cloud was seen throughout this period. Note that such a cloud appears on the early morning of the day and vanishes when it goes to the rear side. It however revives on the next day if the meteorological situation does not change.

The present report deals with the period from 1 May until 15 May 2014. During the period, a total of 32 observers reported 180 observations: namely 8 domestic observers reported 72 observations, 7 American observers sent us 18 observations, from Europe 10 observers contributed 51 observations, 6 Australian observers communicated 35 observations, and one Iranian observer sent us 4 observations. We further received from Damian PEACH (*DPc*) 7 images made by the end of April.

AERTS, Leo (LAt) BELGIUM

2 Colour Images (3, 5 May 2014) 36cm SCT with a DMK21AU618

AKUTSU, Tomio (Ak) Karasuyama, Tochigi, JAPAN

12 Sets of *RGB* + 12 *IR* Images (2, 4, 6, 7* 11 May 2014)

32cm Spec, 40cm Cassegrain* with a DMK21AU618AS

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

1 Drawing (6 May 2014) 400×28cm SCT

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

2 Sets of RGB Images (2, 4 May 2014) 25cm Spec with an ASI 120MM

BOSMAN, **Richard** (**RBs**) Enschede, The Netherlands

1 Set of RGB Images (3 May 2014) 36cm SCT with a Bsaler Ace

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

5 Sets of RGB Images (10, ~12 May 2014) 40cm Dall-Kirkham with a DMK21AU04

CURCIC, Bratislav (*BCr*) Melbourne, AUSTRALIA

5 Sets of *RGB* Images (7, 8, 10, 11 May 2014) 28cm SCT with a QHY5L-II

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

3 Sets of RGB Images (2, 14 May 2014) 18cm Spec with an i-NOVA PLA C+

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

4 Sets of LRGB Images (5, 6 May 2014) 36cm SCT @f/27 with a Flea 3 ICX618

GHOMIZADEH, Sadegh (*SGh***)** Roudehen, IRAN

4 Colour + 1 B Images (3, 8, 11, 12 May 2014) 36cm SCT with a DMK21AU04.AS

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

3 Sets of RGB + 3 IR Images (6, 12, 14 May 2014) 36cm SCT with an ASI 120MM

HERNANDEZ, Carlos E (*CHr*) Miami, FL, the USA

1 Colour Drawing (5 May 2014) 190, 258×23cm Maksutov-Cassegrain

ISHIBASHI, Tsutomu (Is) Sagamihara, Kanagawa, JAPAN

8 Colour Images (4, 7, 11 May 2014) 31cm Spec with a SONY HC9 VideoCam

JUSTICE, Mark (MJs) Melbourne, AUSTRALIA

16 Sets of RGB Images (7, 11,~13 May 2014) 30cm Spec with a DMK21AU618

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

5 Sets of RGB + 2 Colour Images (2, 4, 8, ~ 10, 12, 13 May 2014) 28cm SCT with a DMK21AU618

KAZANAS, John (*JKz*) Melbourne, AUSTRALIA

2 Sets of RGB Images (11, 12 May 2014) 32cm Spec with an ASI 120MM

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

4 Colour Drawings (6, 10 May 2014) 30cm SCT, 600×

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

7 LRGB + 7 B Images (2, 6, 7, 10, 11, 13 May 2014)

28cm SCT @ f/45 with an ASI 120MC & Basler Ace acA1300-30gm

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

3 Colour Images (4, 14, 15 May 2014) 45cm Spec with an ASI 120MC

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

2 Colour Images (3, 6 May 2014) 25cm SCT with a ToUcam Pro II

MINAMI, Masatsugu (Mn) Sakai, Fukui, JAPAN

9 Drawings (2, 10 May 2014) 480×20cm ED refractor* Fukui City Observatory*

MORALES RIVERA, Efrain (EMr) Aguadilla, PUERTO RICO

5 Sets of *RGB* Images (1, 4, ~ 6, 15 May 2014) 31cm SCT with a Flea 3

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

9 Sets of RGB+LRGB Colour + 9L + 5 Colour Images (1, 2, 6,~8, 13 May 2014) 36cm SCT with a Flea 3

MURAKAMI, Masami (Mk) Yokohama, JAPAN

13 Drawings (2,~ 4, 7 May 2014) 320×20cm Spec

NISHITA, Akinori (Ns) Awara, Fukui, JAPAN

5 Sets of RGB Images (2*, 10** May 2014) 65cm refractor*, 20cm ED refractor**

with a DMK21AU618.AS Hida Observatory* and Fukui City Observatory**

PELLIER, Christophe (CPl) Nantes, FRANCE

16 Sets of RGB + 3 IR Images (3, 14, 15 May 2014) 25cm Spec with a PLA-Mx

SOLDEVILLA, Josep (*JSv*) Barcelona, SPAIN

3 Colour Images (4, 14, 15 May 2014) 36cm SCT with a QHY5L-II

SUSSENBACH, John S (*JSb*) Houten, the NETHERLANDS

1 Colour Image (3 May 2014) 28cm SCT @f/25 with a QHY5L-II

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

8 Colour Images (2, 4, 14, 15 May 2014) 36cm SCT with a Flea 3

VALIMBERTI, Maurice (MVl) Melbourne, AUSTRALIA

4 Sets of RGB + 3 IR Images (10, 13 May 2014) 36cm SCT @f/24 with an ASI 120MM

WARELL, Johan (*JWr***)** Lindby, Skivarp, SWEDEN

3 Sets of RGB Images (1, 7, 15 May 2014) 20cm Spec @f/27 with a DBK21AU618

WELDRAKE, David (DWr) Bungendore, NSW, AUSTRALIA

3 Sets of *LRGB* + 3 *L* Images (1, 7, 13 May 2014) 13cm refractor @f/70 with an ASI 130MM

As has been reported, an interesting arctic cloud was found to the NW of M Acidalium on the first day of May (see below), and hence we shall concentrate the following report on the phenomenon and the like.

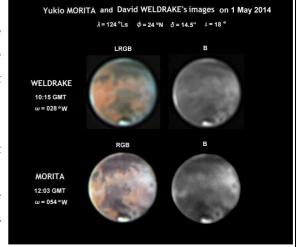
1 May 2014 (λ =124°~125°Ls, δ =14.6"~14.5")

Efrain MORALES (*EMr*) made a set of images at ω =288°W: However as is shown below *EMr* produced a nicer set of images at ω =285°W on 4 May, and there is found no essential change between them we will pass on a review to the 4 May case.

David WELDRAKE (*DWr*) took a set of images at ω =028°W: This set is important because the set conveys a particular morning arctic cloud to the NW of M Acidalium near the morning terminator. Unfortunately *DWr* was only one observer on the day in Australia among many first class observers over there. It is not very easy to judge on the LRGB image whether the cloud is of the type of horseshoe or of

the cyclonic type, while we consider our conclusion based on the B image that it is cyclonic is well convincing. The complex aspect of the morning mist to the west of Tempe should be controversial as well. We note that *DWr's* present images show several characteristics of the surface this season even though his apparatus is of a 13cm telescope (refractor). As a new phenomenon, this set shows a white mist lying along M Erythræum.

Yukio MORITA (*Mo*) in Japan was able to catch the arctic spiral cloud at ω =054°W. This is quite evident. It is further inside of the disk, namely the rhs spiral is complex-



ly inside and suggests that it will survive on the day. Since ι =18°, the cyclone must have been built at the terminator. This may be evident on the G image; as well the cyclone must have a tail to the north. In the case of Mo, the summit of Ascræus Mons pokes out from the morning mist (Pavonis Mons is on the terminator), its aspect being similar to the cyclone image in R and G. The colour of the summit in the RGB

image resembles that of the central eye of the cyclone. *Mo* is an excellent observer and usually bear in mind to shoot every 40 minutes, but on the day there must have been a trouble or the seeing has broken afterward.

Johan WARELL (*JWr*)'s image set was taken at ω =179°W. On the morning side, the Elysium cloud is visible, and at the evening side a cloud patch is seen where the cloud of Olympus Mons is detached.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140501/EMr01May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140501/DWr01May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140501/Mo01May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140501/JWr01May14.jpg

2 May 2014 (λ=125°Ls)

Don BATES (*DBt*) gave a set at ω =272°W. A mist zone is seen along the equator. Syrtis Mj is quite the inside of the disk but may be covered still by a morning mist. The bluish tint shown by Syrtis Mj is because of the morning mist.

Masami MURAKAMI (Mk) visually observed to try to chase the arctic cloud from ω=015°W (still twilight) and then at 025°W, 035°W, 045°W, 054°W, 064°W. At ω=015°W, the north polar cap (npc) was whitish evident, while the morning arctic cloud was just a bit visible, though it became to show a tincture of blue. Arabia looked reddish. At ω=025°W, the arctic haze-like cloud has been a bit expanded, decreasing the brightness but quite whitish. Slightly windy, but the seeing is moderate. 18°C. At ω=035°W, the arctic cloud was whitish, but less bright. At ω=045°W the cloud was more inside, maybe to the south of Tanais. Argyre was passing at the southern limb. At ω=054°W (now windless), the arctic cloud was near Tanais but its details were obscure. At ω=064°W the cloud looked to have expanded to the terminator, while the terminator side was lighter. The seeing condition was then broken. Mk had an impression that this arctic cloud is much weaker than the famous cyclonic cloud in 1999 which he witnessed visually.

Masatsugu MINAMI (Mn) visually watched at the Fukui City Observatory at ω=035°W, 054°W, 064°W, 076°W. However the seeing continued to be very unfavourable, and he had nothing to report. Just he felt that M Acidalium appeared less faint than expected.

Mo showed that the arctic cloud on the day was of the shape of a tuning fork and displayed five RGB images side by side at ω =050°W, 055°W, 059°W, 065°W, 074°W. The image at ω =055°W is comparable with his image on the preceding day (1 May): The position of the cloud looks slightly different than the position on the preceding day, but unfortunately the seeing is poorer, and the condition remained poor until ω =059°W. At ω =059°W his images proved that the shape of the arctic cloud is not cyclonic but rather of the tuning-fork shaped, opened to the south, and the following area of Tempe looks interesting. The southern area adjacent to the cloud is free from the cloud-like matter and shows the brownish ground long from the northern part of Tempe westwards to the terminator. At ω =074°W, the rhs of the tuning fork is quite separated from the terminator. From this angle, Olympus Mons is already inside the disk.

Tomio AKUTSU (Ak) produced two sets of images at ω =055°W and at ω =066°W. The former is comparable with one of Mo's images but the seeing looks poorer. The latter also is comparable with Mo's images at ω =065°W, but the seeing is well associated, though the U-letter shape is suggested. The description of Tharsis is also obscure.

Teruaki KUMAMORI (*Km*) took a colour image at ω =067°W. Both colour and B images show several minor markings nicely. The arctic cloud in question is a bit blurred but clearly shows the U letter-like shape. The morning side branch is richer. Olympia is not yet visible, but its preceding ice-flake part is

connected with the bottom of the arctic cloud. On the B image, the shape of the cloud is no so much U but as I I, namely the bottom looks rather to come out.

Akinori NISHITA (*Ns*) stayed for several nights at the Hida Observatory of Kyoto University, at the mountainous area of Gifu Prefecture, but he was only successful to shoot Mars just on 2 May: He produced two sets at ω =074°W and at ω =093°W. The former angle is found among *Mo*'s images, and here also the U shape-cloud is caught. The enhanced B image shows that the bottom of the U looks to fall out. The angle ω =093°W is the deepest angle on the day: The arctic cloud is now quite inside, maintaining the shape. The morning mist is thick around at Olympus Mons, while the area around the southern terrace of Arsia Mons is now more free from the mist than before, and the large comma-shaped area of Arsia Mons is clearer than before and quite dark brownish.

Xavier DUPONT (*XDp*) produced two sets of images at ω =166°W and at ω =173°W. The preceding limb of the RGB is badly processed, while the B images of both angles are good and they show how the evening cloud patches govern the afternoon area at the Tharsis ridges, Olympus Mons, and at Alba. The morning misty cloud at Elysium is not so solid as those appearing at the evening side. Phlegra is brownish and conspicuously different from the darker markings as Propontis I. At the southern region, the western part of M Sirenum is visible, and the eastern part of M Cimmerium is quite inside. Olympia is separated from the npc, and at the eastern neighbour of the npc, it looks the U shaped arctic cloud still remains, but not so sure because of the presence of the ghosts.

David TYLER (*DTy*) puts three colour images at ω =175°W, 179°W, 186°W. The clouds which are associated with the Tharsis ridges and Olympus Mons are outstanding, and there is visible a dark brownish chasm or gorge perhaps related with the eastern flank of Olympus Mons: The chasm separates the Tharsis cloud from the Olympus Mons cloud. This (rather wide) dark brownish chasm streak is conspicuous on the last image at ω =186°W. Rima Borealis, which separates Olympia from the npc, is very dark. At an evening side far preceding Olympia, there is certainly caught a final remnant of the U or I I shaped arctic cloud.

Manos KARDASIS (MKd) gave a set of images at ω =178°W. The RGB composite is easier to see because the image is nicely magnified. Near the npc, the preceding part of Olympia (maybe Ierna originally) is related with the npc on one hand, and complicatedly with the sinking remnant of the U shaped arctic cloud on the other hand. The rhs branch streak of the arctic cloud is thicker. The following tail of Olympia twines the npc, but the R and G images are excellent. There are standing two bright streaks inside Elysium. Though the B image looks a bit blurred, but the morning mist from Elysium to the terminator is shown not solid in B. The gorge preceding Olympus Mons is also nicely described. As an appendix a projection map around the half-clouded Olympus Mons is attached.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140502/DBt02May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140502/Mo02May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140502/Ak02May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140502/Km02May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140502/Ns02May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140502/XDp02May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140502/DTy02May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140502/DTy02May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140502/MKd02May14.jpg

Frank MELILLO (FMI) gives a set of modest images at ω =269°W. Syrtis Mj looks just passed the phase influenced by the morning mist. A troublesome problem of this image set is that the B component is not real. If a true B filter is directly used, the clouds and mists are shot to be whitish, but the ground could appear to be more shadowy. This looks to have received a longer wavelength light (just like IR light).

Mk visually observed twice at ω =016°W and at ω =026°W, but next it became cloudy. At ω =016°W, there was seen a cloud to the west of Iaxartes, but it turned to be obscure on the next occasion because of the poor seeing condition.

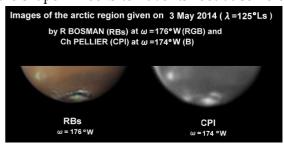
Sadegh GHOMIZADEH (*SGh*) obtained a colour single image at ω =151°W. It shows an artificial limb line. The area around Olympus Mons should be more informative. The area around the arctic cloud is too lax.

Christophe PELLIER (CPI) chased successively at ω =163°W, 172°W, 181°W, 191°W, 201°W: The arctic cloud at ω =163°W looks a bit weaker though it is what was on the preceding day. At ω =172°W, the bottom of the U shaped (or hypsiloid) cloud is thick, while the upper parts look misty and fainter, and the following two images give a similar impression. Judging from the image of Olympia, the arctic cloud on the images at ω =181°W is suggestive concerning the final stage of the cloud: On the G images, the images at ω=163°W, 172°W, 181°W are of the high quality as documents. On the other hand, the aspect of the region of Olympus Mons is well described by the images at ω =172°W and the dark brownish aspect of the chasm preceding Olympus Mons is interesting at ω =181°W. The description on the R image (ω =162°W) and the G image (ω =163°W) is also attractive. As to Elysium, the two light streaks inside should be inquired. We note the every set contains the image by IR685 which shows the details inside Elysium although any does not show the arctic cloud and the morning mist. Propontis I exhibits a particular shape on IR.

Leo AERTS (*LAt*) gives a single colour image at ω =175°W: The npc is not bright, and oddly enough there is no image of the arctic cloud to the east of the npc. The description of the area around of Olympus Mons including the associated cloud is excellent, while the colour of the chasm preceding Olympus Mons and furthermore the colour nuance of Phlegra look weird.

Richard BOSMAN (RBs)'s RGB image is made at ω =176°W, where several ice shards preceding Olympia are well described. These imply that the arctic cloud of the shape I I looks to have its root at some of

the ice shards. RBs also issues a projection map around the Images of the arctic region given on 3 May 2014 (λ =125°Ls) north pole where a vestige of the arctic cloud is nicely shown. The RGB image is excellent to the extent that the area around of Olympus Mons is well shown in a convincing way. The west flank is covered by a distinguished streak-like white matter which is also visible in R. From the



remnant of the Ascræus cloud there runs a light streak to the WN direction. The area of Elysium shows how mistily the morning side is. The descriptions of Propontis I and Phlegra are interesting. The conjunction aspect of M Sirenum and M Cimmerium is also well depicted. The file is also associated with the collection of the B images (ω =152°W~178°W).

John SUSSENBACH (*JSb*) obtained a colour single image at ω =177°W. The remnant of the arctic cloud looks visible, rather thickly. At the area of Olympus Mons, the distinguished white segment at the west flank is evident. The morning mist at the Elysium site is blurred as on RBs's image.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140503/FMI03May14.jpg

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140503/CPl03May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140503/LAt03May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140503/RBs03May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140503/JSb03May14.jpg

4 May 2014 (λ=125°Ls~126°Ls)

DBt took a set at ω =256°W. However the balance between R and G is broken so that the greenish colour prevails on RGB, that is, the colour in general looks unnatural. On B, the mist starting from Elysium is shown to have reached Syrtis Mj.

EMr obtained a nice image set at ω =285°W, which is similar but superior to his on 1 May. Olympia is at the evening side of the npc, and the arctic cloud is concealed (if still exists). Utopia is rather faint but no sign of cloud disturbances. Elysium is very white near the evening limb, and sends a broad mist to the SW direction. Syrtis Mj is majestically located near the CM. Hellas is whitish bright; with a blurred boundary while showing a less bright part inside.

Mk had a chance to visually observe at ω =358°W, 007°W: On the former M Acidalium must have been totally inside the disk, but the morning arctic side was not distinguished from the brightness of the terminator side. On the latter, there was seen a slightly whitish area to the west of Iaxartes. Soon after, the cloud invaded, and the seeing deteriorated.

Ak chased the whitish arctic cloud to the NW of Acidalium at ω =010°W, 035°W, 046°W. On every image, a mass of arctic morning cloud is explicitly visible, but no fine structure is witnessed; just only the images at ω =046°W may convey an eye inside the cloud mass.

Tsutomu ISHIBASHI (*Is*) obtained some images from a SONY Video at ω =019°W, 028°W, (030°W). On every image the patch of the morning arctic cloud is apparently shot, but any without inner structure.

MKd got a set of images at ω =151°W. A remnant of the arctic cloud is apparent at the evening side to the east of the npc. It suggests that the cloud has been of a U shaped. The preceding part of Olympia (the ice shards look combined as the so-called Ierne) is connected with the npc. The images well settles the area of Olympus Mons, though the white segment is not so thick (seen also in R). From the Ascræus cloud near Ascræus Mons a light streak runs toward the NW direction (as before).

DTy put a couple of colour images at ω =167°W, 173°W: The former shows a remnant of the U shaped arctic cloud, while on the latter the rhs branch looks weaker.

Martin LEWIS (MLw) gives a single colour image at ω =169°W. The ice shards preceding Olympia are visible each separated (45cm Dobson), and the final phase of the arctic cloud is shown related with the shards. The summit of Olympus Mons is visible shadowy adjacent to the white segment. The image is detailed around the area of Propontis I. M Sirenum is clearly depicted: It is possible to pin down Caralis Fons (Newton crater).

Josep SOLDEVILLA (JSv) gives a single colour image at ω =182°W. The white colour is not vivid on the image. This is quite detailed: some minor markings at the northern coast of M Cimmerium (including the ant's feet) are shown, the light streaks inside Elysium are well caught, the area of Olympus Mons is as expectedly described and so on. However the description looks unsatisfactory as a whole perhaps because of an excessive processing.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140504/EMr04May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140504/DBt04May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140504/Ak04May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140504/Is04May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140504/MKd04May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140504/DTy04May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140504/MLw04May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140504/JSv04May14.jpg

5 May 2014 (λ=126°Ls)

EMr obtained a nice set at ω =226°W, where the expansion of white mist at the evening side and the rising broad mist from Elysium towards Syrtis Mj are well described. The mist from Elysium near noon looks to have arisen southwards from around Elysium Mons. Olympus Mons is very white at the evening limb. The region of Utopia is well mapped, but no cloud disturbance is visible. Olympia is near the CM: the tail looks to be connected with the npc.

Carlos HERNANDEZ (*CHr*) gave an elaborated colour drawing at ω =254°W. Syrtis Mj was appearing from the terminator, much covered by the morning mist. It was however not bluish, but the nuance of the mist covering was exquisitely drawn in his own way. N Alcyonius was clearly pinned down. Elysium on the afternoon side looks classical, and the graduation of the brightness at the inside is skilful. The white streak seen to the south of the npc must have been Olympia.

Bill FLANAGAN (*WFI*) gave a couple of excellent image sets at ω=254°W, 261°W. The following part of Olympia is revealed here first to be composed of complicated elements. This composition is visible on both of the RGB images, and so they are never any ghosts. Elysium is at the evening side: The small white point at the summit of Elysium Mons is very clear on the images especially at ω=254°W. At ω=261°W, the white point looks a bit larger. The definition of the new shape of the Ætheria dark patch is superb and the preceding pinkish streak adjacent to it is quite evident. M Cimmerium is half concealed, but the western part remains and quite detailed: The ant's eye or the Hershel crater is definite, and the so-called ant's two feet which are composed of the Gale crater on the one hand and of the Knobel crater on the other are clearly visible. Furthermore several canals crossing Hesperia are nicely depicted. Utopia is calm and fainter: Just a faint white winding streaks are visible at the following area of Olympia (in Utopia) at ω=261°W. The southern top of Utopia is shown rather fractal. The morning mist at Æria is mildly thick on B.

LAt gives a single colour image at ω =134°W. The image looks a bit contrasty. A remnant of the arctic cloud is visible near the evening limb at the arctic area, though the shape is not clear. The preceding part of Olympia is also obscure. On the other hand the area of Olympus Mons is quite clear. The light streak from the Ascræus cloud is also evident, and the area of Alba is well mapped.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140505/EMr05May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140505/CHr05May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140505/WF105May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140505/LAt05May14.jpg

6 May 2014 (λ=126°Ls~127°Ls)

Peter GORCZYNSKI (*PGc*) obtained a set of images at ω =230°W. The colour of the RGB image is dull, but they all are good. The morning Syrtis Mj is still faint near the terminator. M Cimmerium is described above average. The afternoon Elysium is slightly misty inside and the two streaks are evident: the one on

the rhs is the pinkish streak adjacent to the Ætheria dark patch, and their structures are easily resolved on the IR742 image at ω =240°W. Olympia look to have passed the CM, and the aspect of the connection of the tail with the npc is similar to that of EMr's image at ω =226°W on the preceding day. We may say the area of tail does not necessarily suggest the clear complex on WFl 's images.

FM1 gives a single colour image at ω =236°W. Syrtis Mj is bluish near the morning terminator beneath the morning mist. The inside of Elysium is bright without details. The southern limb looks light.

EMr gives a set of images at ω =240°W. The RGB image is softer than that of EMr's image and the distribution of the whitish mist is well depicted. The area of Olympia looks a bit blurred. The southern limb is rather reddish because of the ground-lit of Ausonia.

Jay ALBERT (*JAI*) gave a sketch at ω=245°W. Syrtis Mj is visible at the morning side. The npc is completely inside the disk.

WFI again gave two sets of excellent images at ω =245°W, 252°W. The RGB images reveal the complex aspect of the area of Olympia, reminding us of the *WFI* images on 5 May. This aspect is well shown on the G images. The southern limb area looks slightly whitish related with the coming Hellas due to the B images. A detailed cloud distribution inside Elysium is apparent. The description of M Cimmerium at ω =245°W is quite detailed but looks slightly excessively processed. The delicate NW end of M Cimmerium is nicely depicted on the image at ω =252°W. The description of Cerberus shows a detail (we first record here), which is also visible on the preceding day.

Ak took the images at ω =348°W (at 19:33JST), 017°W, 022°W, 036°W, 044°W. The seeing was not preferable, but the arctic cloud was checked at ω =017°W to exist around at Baltia to the west of Iaxartes, and looked thick. At ω =036°W, 044°W, the cloud looked to have expanded to the terminator side having a denser patch at the west end. The southern neighbourhood appeared somewhat free from the mist. The arctic cloud thus was suggested to have revived in a different way than the preceding cases.

Mo obtained three sets of images at ω =356°W, 009°W, 054°W: There is a long gap from the second shot to the third one. The seeing was not favourable. The images at ω =054°W correspond to the images of the images on 1 May where the cyclone was caught, and so they may be valuable. At ω =009°W, in addition to the arctic cloud to the west of Iaxartes, the morning mist to the west of Tempe is also thick. The latter looks however to remain near the terminator judged from the data at ω =054°W.

Reiichi KONNAÏ (*Kn*) produced a couple of colour drawings at ω =010°W, 020°W. He checked visually the arctic cloud to the west of Iaxartes. Tempe's terminator mist was also caught. At ω =010°W, Eden is reddish. At ω =020°W the arctic cloud looks to have reduced to a narrower cloud band.

Km shot at ω =038°W and grasped nicely the shape of the arctic cloud. It looks to be doubled; the main narrower cloud is located at Baltia to the west of Iaxartes, and the lower one is to the west of Hyperboreus L. As a following image, we want to know how the arctic cloud develops as a rotation brings Olympia to be apparent.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140506/PGc06May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140506/FMl06May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140506/EMr06May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140506/JAl06May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140506/WFl06May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140506/Ak06May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140506/Mo06May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140506/Mo06May14.jpg

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140506/Kn06May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140506/Km06May14.jpg

7 May 2014 (λ=127°Ls)

DWr obtained a set of images at ω =329°W. The arctic cloud is thickly visible at Baltia to the west of Iaxartes, and still touching the terminator. The images also well show the invasion of the morning mist above the southern part of M Acidalium.

Mark JUSTICE (*MJs*) produced five sets of images at ω =337°W, 355°W, 006°W, 017°W, and at ω =031°W. At ω =337°W, the arctic cloud is dull. At ω =355°W it shows a new feature and it looks to be invading the NW part of M Acidalium rather than at Baltia. At ω =006°W, 017°W, the cloud looks to curve like a broad bow, the lhs concealing the NW part of M Acidalium. The final image set at ω =031°W is excellent (the depiction of the npc is good) shows the lhs of the cloud is above the NW corner of M Acidalium and also conceals a part of Iaxartes; this being followed by another branch of the cloud patch near the terminator. We miss the following images. The morning mist to the west Tempe is apt to disappear.

Is kept time as at ω =353°W, 002°W, 012°W. At ω =002°W the arctic cloud looks doubles and the lhs invades the NW part of M Acidalium. The image at ω =012°W shows the preceding cloud is accompanied by another branch of the morning cloud.

Mk visually observed at ω =358°W, 007°W, 017°W. At ω =358°W, the NW of M Acidalium seemed to imply brighter than that at the same angle on 4 May. But it did not show any concentration. At ω =007°W, the NW corner of M Acidalium showed a bit bluish tint, and came further inside. At ω =017°W the cloud at the NW corner of M Acidalium looks lighter at the northern side. The image inside the eye-field of the telescope the planet turned sideways, and hence Mk stopped observing.

Ak took three sets of images at ω =006°W, 017°W, 032°W by the use of a 40cm Cass belonging to the Utsu-no-miya University, Tochigi Prefecture. At around ω =017°W, the seeing seemed to be better. On these occasions (when something extraordinary is happening every day) it is preferable to gain a series of images at the same angles, and here Ak nicely caught an image set at the same angle ω =017°W as that on the preceding day. Of course we should say he missed other opportunities, especially at ω =044°W. The comparison of the images at ω =017°W shows us a delicate difference on the clouds. Some of Ak's angles on 7 May are however comparable with those of MJs and hence this fact is beneficial to Ak.

Km gives a colour image at ω =007°W. On the day before, Km exposed at 14h GMT while on this day he shot at 12.5h GMT. Was there any reason? Since the images on the preceding day at ω =038°W was excellent in revealing the shape of the arctic cloud, and so we miss the image at the same angle on the present day (7 May).

Mo also gave just one set at ω =014°W. The sky must have been unfavourable or he must have been very busy (as said in LtE in the preceding issue).

Bratislav CURCIC (*BCr*) took a nice set of images at ω =028°W. Since the npc is well mapped, and the B image is excellent, the aspect of the arctic cloud should be said best described by this image set at ω =028°W, if supplemented by *MJs*'s image set at ω =031°W. Note that the angle ω =028°W is exactly the same angle as the one showing a cyclone employed by *DWr* on 1 May. Note that the curved shape of the cloud here looks like a *wing* in use of a *paraglider* (not the *hang glider*, though they are cousins).

*JWr'*s set of images was taken at ω =135°W. Olympus Mons must be near the CM, but is not very iden-

tified. It is also not certain we can find the corresponding cloud at the arctic area.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140507/DWr07May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140507/MJs07May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140507/Is07May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140507/Ak07May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140507/Km07May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140507/Mo07May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140507/BCr07May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140507/BCr07May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140507/JWr07May14.jpg

8 May 2014 (λ=127°Ls~128°Ls)

BCr gave a set of Mars images at ω =001°W. There is seen a curved arctic cloud a bit invading the NW corner of M Acidalium, but we need some following images to grasp diurnal changes of the cloud over time.

Mo gave a set of images at ω =024°W. Compared with *BCr*'s images at ω =028°W on the preceding day, the thick cloud patch on M Acidalium is now apparent, so that it is possible for the cloud patch must have turned to a mere morning mist or much weaker one. However since a faint cloud zone still stays on M Acidalium, a weaker type of the arctic element might be working.

MKd gives a single colour image at ω =082°W, four hrs after Mo's time. There is no strong cloud distribution over M Acidalium, while a slight patch of a white cloud is present near Tanais.

SGh gave a colour image and a B image at ω =085°W. Similar to the work by *MKd*, *SGh*'s shows a whitish small patch cloud is found near Tanais. On this day we may conclude that the arctic cloud was not so active. *SGh*'s colour image looks to have a good distribution of colours, but the image itself should be more sharp.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140508/BCr08May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140508/Mo08May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140508/MKd08May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140508/SGh08May14.jpg

9 May 2014 (λ=128°Ls)

MKd gave a set of images at ω =116°W. To the west of a canal between M Acidalium and Hyperboreus L, there is a cloud patch which may be of the shape of Landolt C, though not so explicit. The position resembles the case on 30 April. The R image implies that the preceding ice shards of Olympia (still hidden) are possibly related with the C shaped arctic cloud.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140509/MKd09May14.jpg

10 May 2014 (λ=128°Ls~129°Ls)

Maurice VALIMBERTI (*MVI*) joined and produced successively four sets of images at ω =313°W, 317°W, 326°W, 337°W. The first image shows the sinking Olympia at the evening side. The images are all above average, and the tail part of Olympia suggests an interesting complex as observed by *WFl* on 5 May and 6 May. Syrtis M also shows the craters inside. The general faintness of Utopia is recorded. At ω =326°W, M Acidalium appears on the northern part of which a morning cloud patch is visible. At ω =

337°W, the cloud is more inside, and to its NW a terminator thick cloud is bright. See G and B.

Stefan BUDA (*SBd*) also observed at ω =318°W, 324°W, 341°W (three sets of R, G, B and RGB images). The image set at ω =341°W is made after *MVl*, but not enough to judge whether it is an arctic cloud or not since its western edge is not separated from the terminator. The ground of M Acidalium along the eastern side of this cloud looks darker. Each of *SBd*'s images is excellent: The images at ω =318°W very detail S Sabæus, Syrtis Mj and so on and mildly detail the npc, Olympia and so on. The RGB image at ω =341°W clearly shows the minor "Oxus dark segment" discussed previously at the review column of 19 April. The depiction of Hellas is also excellent, and the aspect of the area of the boundary should be noticed.

BCr gave one set of images at ω =321°W: Excellent images, while just M Acidalium has popped in and shows a cloudy matter (not a morning mist) at the NW corner. See G and B.

Km shot at ω =331°W and at ω =011°W, though the seeing is poorer. The image at ω =011°W may suggest an "eye" on the coming cloud.

Ns and *Mn* alternatively observed together at the Fukui City Observatory: *Mn* visually observed at ω =338°W, 348°W, 358°W, 007°W, 017°W and *Ns* ccd observed at ω =349°W, 002°W, 012°W. At ω =338°W (*Mn*) the arctic cloud at the NW corner of M Acidalium is visible upto the terminator, though the relation with the dark Hyperboreus L is not known. At ω =348°W, it was more inside and stable on M Acidalium. Arabia looked reddish. At ω =358°W, the western following cloud is brighter on the terminator. Syrtis Mj is now near the evening limb. At ω =007°W, the seeing was moderate, and the following cloud is conspicuous around at Baltia. At ω =017°W (*Mn*) the arctic cloud looked doubled and the following part was brighter. *Ns*'s images at ω =349°W show that the cloudy matter at the NW corner of M Acidalium is more inside compared with *BCr*'s and *Km*'s cases, while the following terminator cloud is very thick. At ω =002°W, the terminator cloud is broader and extended to Tempe. At ω =012°W the cloudy matter on M Acidalium is fainter, and the following patch crossing Tanais suggests that this is the arctic cloud. It looks to have an eye inside and opened to the north.

MKd gave a set of images at ω =106°W. The images are bit blurred, but good to such an extent that it is possible to decompose the preceding ice of Olympia to ice shards. And at the evening side, there seems to detect the remnant of the arctic cloud noted by Ns's last images with a reversed U letter type (\cap) cloud (see B). MKd's present images, though not well sharpened, show several nice points: The morning aspect of Olympus Mons is definitely mapped in R and G (also in B), the Arsia terrace is apparent in a large comma-like shape of a dark brownish tint, a cloudy band from the north of Solis L to the south of Arsia Mons is detected, and so on.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140510/MV110May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140510/SBd10May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140510/BCr10May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140510/Km10May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140510/Ns10May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140510/MKd10May14.jpg

11 May 2014 (λ=129°Ls)

Kn made a couple of colour drawings at ω=300°W and at 330°W. At ω=300°W, the morning mist is shown, but no explicit sign of M Acidalium is there. The boundary of Hellas is depicted realistically. Olympia is sinking at the east side of the npc. At ω=330°W, A fine structure of the outline of the npc is

suggested, and Olympia is still visible. M Acidalium is beneath some clouds which look doubled along the terminator. Entrance of some arctic cloud on the stage may be a sequel.

John KAZANAS (*JKz*) gave a set of images at ω =310°W. Near the coming M Acidalium, there are seen a couple of cloudy belts and suggest a complex phenomenon to appear. This set is comparatively made of good images: The Huygens crater, the following part of Olympia and so on are nicely shown (the G image is better).

SBd gives then a set of images at ω =312°W which suggests us that we should notice the dark brownish streaks on M Acidalium rather than the cloudy or misty streaks on it. This image nicely shows the internal structure of Hellas as well as the tail part of Olympia.

Is observed at ω =317°W, 327°W, 336°W. These belong to the first class images of *Is*'s work in 2014. The image at ω =317°W is the nicest: Olympia is well shown and the contrast between the misty streaks and the ground dark streak is good. The last image shows the white terminator cloud.

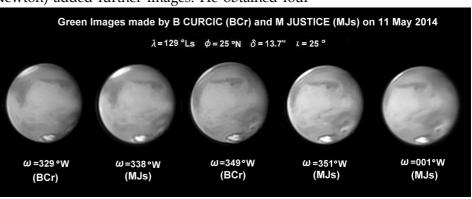
BCr (by the use of a 28cm SCT) made a splendid chase together with the following *MJs*'s superb work. *BCr* started from ω =329°W, and then observed at 332°W, 337°W, 346°W, 349°W, and constructed five sets of R, G, B, RGB images. The misty streak first grasped on M Acidalium was shown to gradually fade away, but the following cloud streak developed around from ω =332°W, and embroiled the ground to

make a rough "eye", and then the cloud which appeared along the arctic terminator made *another* distinct "eye" from around ω =337°W. At ω =346°W, 349°W, the eyes are considerably clear (the first one may be said to become weaker) and made an 8 shaped or an inverted S shaped arctic cloud. This spiral phenomenon with eyes is interestingly shown in R, G and B images with different aspects. The position of the second more definite eye must be at the NW end of M Acidalium.



MJs (by the use of a 30cm Newton) added further images. He obtained four

sets of images at ω =329°W, 338°W, 351°W, 001°W. The start was made at the same angle as *BCr*, but added newly the images at ω =351°W, 001°W. At ω =338°W, the first eye appear dull, while the second



eye is quite definite; this corresponding to BCr's ω =337°W, but the processing being a bit different. At ω =351°W, 001°W, the arctic cloud is further inside and the second shows an aspect of cyclone. One tail of spiral extends toward the south, but note that another spiral goes down to the west of Hyperboreus L at ω =001°W. Every G image here is quite impressive. We may be allowed to say these long series sets of images including BCr's would belong to the biggest fruits in this apparition.

Km took a set of colour and B at ω =330°W. M Acidalium is almost apparent, but the images do scarcely suggest the afterward situation of the two cloud streaks.

Ak observed at ω =336°W, 346°W. The former show the first eye obscurely, and the latter suggests a second eye, but the seeing looks to begin to break.

SGh issued a colour single image at ω =069°W. *SGh* is located at a longitude where the present critical

phase is to be chased. However even the whiteness of the npc is not well produced, and it's impossible to unearth any bit of the arctic cloud.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140511/Kn11May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140511/JKz11May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140511/SBd11May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140511/BCr11May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140511/BCr11May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140511/MJs11May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140511/Km11May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140511/Ak11May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140511/SGh11May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140511/SGh11May14.jpg

12 May 2014 (λ=129°Ls~130°Ls)

PGc gives a set of images at ω =185°W (as well as an IR742 image at ω =189°W. The colour is dull and the markings just appear normal. Elysium is full of the morning mist. A detail may be checked on IR image: Minor Cerberus markings are visible.

MJs produced again a series of 6 image sets at ω =288°W, 298°W, 308°W, 319°W, 328°W, 337°W (every 40 minutes). At ω =328°W, the eye which is similar to the one seen on the preceding day is visible again. Inside M Acidalium visible are two dark streaks where the covering mists are absent. At the final ω =337°W, the eye is more inside and looks accompanied by another minor eye. A nice view is provided by the G image. As the images, the first image at ω =288°W is considerably good though where M Acidalium is still at the rear side. At the arctic area, the tail of Olympia is especially interesting (next to *WFl*'s on 5 May). Soon after the seeing deteriorate for a while, *MJs* continued to work to record the arctic cloud. Another of *MJs*'s beauty is his choice of the angles: Here he shot at the similar angles to those used on the preceding 11 May. For example the angles here of ω =328°W and 337°W correspond to ω =329°W and 338°W employed on the day before. Note also *BCr* took also at ω =337°W on 11 May.

SBd observed only at ω =297°W. Decent work.

JKz took a set of images at ω =312°W, the same angle used on the preceding day. The area in question is appearing, but no chase is made.

MKd gives a single colour image at ω =043°W which is an important angle. However the image is duller due to the seeing condition. A cloud patch is visible to the NW of M Acidalium but no detail is given.

SGh gives a colour image at ω=052°W which is also an important angle. However the image sharpening lacks so that the area of the arctic cloud is very obscure. Should be accompanied by the G and B images.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140512/PGc12May14.jpg

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140512/MJs12May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140512/SBd12May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140512/JKz12May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140512/JKz12May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140512/MKd12May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140512/SGh12May14.jpg

DWr gives a set of images at ω =285°W. M Acidalium is a bit visible, suggesting an arctic cloud near the terminator. However DWr did not pursue.

MJs also gives no more than a set of images at ω =302°W with a good image of Olympia. Apparently the arctic cloud is about to come, with an eye on the terminator (see G and B images).

MVI also gives one set of images at ω =302°W. Same as above.

Km obtained a set at ω =303°W. Same as above, but a bit inferior to above concerning the depiction of Olympia.

Mo obtained three sets of images every 40 minutes at ω =314°W, 324°W, 334°W. Already the first images at ω =314°W show an arctic cloud with an "eye". May be similar to the image of *MJs* at ω =319°W on 12 May. *Mo*'s image here at ω =324°W shows more inside. We should determine the position of the eye together with the implications of the preceding day images. Is it near Iaxartes? At ω =334°W, the seeing turned to be very poor, but the G image is better.

MKd obtained one set of images at ω =049°W. This may imply that the cloud around Iaxartes has dissipated. A remnant is seen to the west of the NW corner of M Acidalium, which is traced well in G and B. Its west is cleared near the terminator showing a dark brownish strange area.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140513/DWr13May14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140513/MJs13May14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140513/MVl13May14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140513/Km13May14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140513/Mo13May14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140513/MKd13May14.jpg

14 May 2014 (λ=130°Ls~131°Ls)

PGc gives a set of images at ω=161°W: The colour of the RGB image looks duller, but the details on each image are satisfactory, including IR742 image at ω=165°W. The Ascræus cloud with maybe mixed with icy matters is whitish bright at the afternoon side, and the area of Olympus Mons is also detailed. Alba is visible in a triangular shape, and in R its south looks complex and interesting. In R, Propontis I is quite dark in a triangular form. In R also, the preceding part of Olympia is resolved into ice shards. It is not well determined whether a remnant of the arctic cloud is found or not, though some small cloud patches are scattered.

XDp gives a set of images at ω =050°W. The V and B images may imply that the always visible dark point is like an "eye" but this is false, and the true one must be the one that is visible more near the terminator. Need to chase.

JSv obtained a single colour at ω =059°W, but processed in RRGB so that this is not favourable to chase any white cloud.

CPI chased the planet for about two hours and a half, and obtained six sets of images at ω =060°W, 067°W, 074°W, 082°W, 089°W, and at ω =096°W. At ω =060°W, near the terminator, a seemingly arctic cloud of a Ω shaped with a brownish eye, but the eye is not so definite. Otherwise there is seen a c-shaped small cloud just on M Acidalium near the following edge, and since the time is near noon, this may be a stable ring cloud. These should be referred on the B images. At ω =067°W, the small c-shaped cloud is apparent on the NW corner of M Acidalium (evident in B), and this stays finely until the final angle at ω =096°W. (Originally, there is a dark spot to a bit SW of the NW corner of M Acidalium, and so we

should not confuse it with any eye.) The cloud of a large cloud in a shape of \cap is not so active and becomes fainter, though stays until the final stage. The rhs of the cloud looks developing largely after ω =074°W: This branch so must be related with the white cloud associated with Alba. After ω =082°W, Olympia is coming, and its preceding part (Ierne) resolves into ice shards. Unfortunately any relation with the possible arctic cloud id unknown, though on the images at ω =089°W, 096°W the relation may be suggested. Note finally, after ω =082°W, the Arsia comma-shaped terrace is apparent in a dark brownish tint suggesting a different meteorology governs there than that in April.

DTy took a colour image at ω =069°W. The npc, Hyperboreus L and some ice shards preceding Olympia (which is not apparent at present) are explicit, but the small c-shaped spiral at the following part of M Acidalium is very obscure.

MLw's single colour image was obtained at ω =085°W. The spiral whitish cloud in the C shape at the NW corner of M Acidalium is still alive. The following thin cloud patch in the shape Ω is not so easy to understand. The relation of the cloud with the ice shards preceding Olympia which is now seen a bit near the limb is not so apparent. We note the Arsia terrace is cleared from the mist and its dark brownish comma-like shape is very evident.

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15 May 2014 (λ =131°Ls, δ =13.4"~13.3")

EMr obtained a set of images at ω =140°W. The seeing is not decent in such a way that the preceding part of Olympia is obscure, but at its south there seems to exist a remnant of the cloud. Alba is evident.

CPI lets the angles pass in such a way as ω =051°W, 061°W, 070°W, 080°W, 089°W. If we compare the image at ω =061°W with the one of *CPI* at ω =060°W on the day before, the small c shaped spiral at the NW part of M Acidalium had disappeared on this day. However the following dark brownish area stays as if it surrounds the white area of Alba. This brownish area revives until the final angle ω =089°W, but it is unknown whether and how this is associated with any possible arctic cloud. Olympia is not yet apparent, while the preceding ice shards are visible and suggestive concerning the relation with the arctic cloud. Compared with the case in April (λ =110°Ls~124°Ls), the action of the clouds and misty matters around here is quite brisk.

DTy put three colour nice images side by side at ω =058°W, 061°W, 068°W. On every image, the preceding part of Olympia is decomposed into icy shards, and to its south there is a vague cloud near at Tanais. To the west of Iaxartes, there expands a thin misty distribution. The details are shown, but from the view point of the arctic cloud, any element is rambling. So it is not easy to pin down the arctic cloud.

MLw issues a single colour image at ω =065°W. The ice shards which precede Olympia and its southern cloud, a dark brownish part, the morning mist are well described. However, there is no definite spiral cloud around the arctic area.

JWr's set of images is given at ω =066°W. There are three elements of a cloud, a dark brownish area and another cloud to the NW of M Acidalium. The RGB and G images look a bit blurred, but quite decent in general.

JSv's colour single is taken at ω =067°W: The cloud patch at Tanais and the following brownish area are visible. The npc should be more whitish.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140515/EMr15May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140515/CPl15May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140515/DTy15May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140515/MLw15May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140515/JWr15May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140515/JSv15May14.jpg

PEACH, Damian A (DPc) Barbados Island (\leftarrow Selsey, West Sussex, the UK) 7 Colour + 1 B Images (24, 26, 27 April 2014)

Masatsugu MINAMI (Mn) & Masami MURAKAMI (Mk)

Letters to the Editor

• ··· Subject: Mars 4th May 2014 Received: 6 May 2014 at 08:23 JST

Hi, Some reasonable details of the less interesting face of Mars in this view from last night. Cloud over Elysium and orographic clouds over Olympus Mons and the three Tharsis volcanoes near the left-hand limb. Cheers,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140504/MLw04May14.jpg$

O....Subject: Mars 16-5-2014 Received: 21 May 2014 at 05:13 JST

Hi, A night of reasonable seeing here in the UK on the 16th May allowed me to image the same face of Mars as seen in Damian's recent 15th April image from Barbados.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140516/MLw16May14.jpg More Mars images to come from the nights around this night. Cheers,

O····Subject: Mars 14th May, 15th May and 18th May 2014 Received: 23 May 2014 at 08:24 JST

Hi, Here is selection of Mars images taken in the days around my last offering from the 16th May, but unfortunately in not such favourable conditions.

O····Subject: Mars 25th May 2014 Received: 27 May 2014 at 05:04 JST

Hi, Bright Hellas cloud and obvious gibbous phase in this image in difficult conditions last Friday- first time this apparition with Syrtis Major fully on view for me. Mars getting noticeably smaller now. Cheers,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140516/MLw16May14.jpg$

O····Subject: Mars 30th May 2014 Received: 6 June 2014 at 07:57 JST

Greetings, A much reduced Mars with some details that may be useful taken in poor conditions last Friday night. Regards,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140530/MLw30May14.jpg$

O....Subject: Mars 30th May 2014 Received: 6 June 2014 at 07:57 JST

Greetings, A much reduced Mars with some details that may be useful taken in poor conditions last Friday night. Regards,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140530/MLw30May14.jpg$

○ ····Subject: Mars 12th June 2014 Received: 18 June 2014 at 07:09 JST

Hi, A small Mars in difficult seeing again this time imaged on 12th June. Cheers,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140612/MLw12June14.jpg$

Martin LEWIS (St. Albans, the UK)

See more at www.skyinspector.co.uk

Ser3-0762 _____ CM0 #424

• ····Subject: Mars images 2014 May 07 and May 08 Received: 9 May 2014 at 16:05 JST

Hello, here are two sets of RGB images I have collected on the evening of May 7th and May 8th. Seeing was extremely poor, especially on the second night as jetstream was particularly strong over Melbourne. I persisted because despite the atrocious conditions some detail in polar cloud is still evident in the blue channel. I hope images will be of some use. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140507/BCr07May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140508/BCr08May14.jpg

O····Subject: Mars images 2014 May 10 and May 11 Received: 13 May 2014 at 09:34 JST

Hello, here are two sets of RGB images I have collected on the evening of May 10th and May 11th. Seeing started as very good on the evening of 10th, but with extremely high amount of dew. After fighting the dewing on everything from corrector plate to the laptop screen I had to give up when the primary in my SCT dewed up! I have never seen that before, and even more so frustrating as this promised to be the best seeing of this apparition. Seeing on the following night (11th) was little bit worse but still relatively good for local conditions so I processed all collected data into a large composite. I hope images will be of some use.

Best regards,

Bratislav CURCIC (Melbourne, AUSTRALIA)

● ····Subject: May 10th Received: 13 May 2014 at 19:21 JST

Hi everyone, The attached images were captured in amazingly humid conditions. Everything was dripping wet from condensation. It was very hard to keep the mirrors dry and in the end I had to give up. The last set was captured with a partially fogged up secondary. Best regards,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140510/SBd10May14.jpg$

○ ····Subject: Mars, May 11th Received: 16 May 2014 at 20:08 JST

Hi everyone, This set was captured in average

seeing.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140511/SBd11May14.jpg

O....Subject: Mars, May 12th Received: 18 May 2014 at 10:00 JST

Hi everyone, This set was captured in poor to mediocre seeing. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140512/SBd12May14.jpg

O····Subject: Mars image, 09 June 2014 Received: 12 June 2014 at 07:48 JST

Hi everyone, Here's an RGB in poor to mediocre seeing. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140609/SBd09June14.jpg

Stefan BUDA (Melbourne, AUSTRALIA)

• ···· Subject: Mars 2014/05/06-Kumamori Received: 7 May 2014 at 20:14 JST

Masatsugu MINAMI-sama, The seeing was variable. The sky was unstable, sometimes thin clouds bothered me. As a whole, I think I have got an image which is acceptable. The planet looks rapidly shrinking. I will however try to shoot a bit further.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140506/Km06May14.jpg

○ ····Subject: Mars 2014/05/07-Kumamori Received: 8 May 2014 at 18:21 JST

Masatsugu MINAMI-sama. The seeing turned to be poorer, but the polar cloud looks more active, and its surrounding proved to be of reddish-purple colour.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140507/Km07May14.jpg

O ···· Subject: Mars 2014/05/10-Kumamori Received: 11 May 2014 at 17:19 JST

Msatsugu MINAMI-sama, I expected the seeing to be better, because the low pressure air on the Japan sea had gone to the Pacific Ocean, but seeing did not so improved. The arctic cloud seems to be weaker. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140510/Km10May14.jpg

O····Subject: Mars 2014/05/11-Kumamori Received: 12 May 2014 at 10:51 JST

Masatsugu MINAMI-sama, some bad clouds were about to come from the western sky, but before its arrival, I could obtain one set of images.

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140511/Km11May14.jpg$

O····Subject: Mars 2014/05/13-Kumamori Received: 14 May 2014 at 06:45 JST Masatsugu MINAMI-sama, Perhaps due to the poor transparency, I feel as if Mars is losing a power. Very hot at the day time, but the seeing does not so improve at night. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140513/Km13May14.jpg

O····Subject: Mars 2014/05/16&17-Kumamori Received: 18 May 2014 at 12:48 JST

Masatsugu MINAMI-sama, The sky quite remains dullish. Clouds are rich and the seeing is unstable. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140516/Km16May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140517/Km17May14.jpg

O····Subject: Mars 2014/05/18-Kumamori Received: 19 May 2014 at 11:22 JST

Masatsugu MINAMI-sama, It was fine during the day time, but as Mars was high up, a thin cloud was covering. However the seeing was moderate, and I suppose good images were obtained. Best

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140518/Km18May14.jpg

O····Subject: Mars 2014/05/19-Kumamori Received: 20 May 2014 at 11:49 JST

Toward the evening, the sky cleared, but as soon as I began to shoot, some clouds gathered and the seeing was broken, though I send here two sets to you because they look a bit preferable. Regards,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140519/Km19May14.jpg$

O····Subject: Mars 2014/05/21-Kumamori Received: 22 May 2014 at 20:24 JST

Masatsugu MINAMI-sama, It was rainy during the morning, and in the afternoon the rain stopped but the north wind was strong to shake the tree branches. At night, still it was cloudful, but I could get some images in a lull. Otherwise the seeing was awful. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140521/Km21May14.jpg

○ ····Subject: Mars 2014/05/23-Kumamori Received: 26 May 2014 at 11:42 JST

Masatsugu MINAMI-sama. The seeing was variable. These were got during the moments the seeing slightly improved. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140523/Km23May14.jpg

○ ····Subject: Mars 2014/05/28-Kumamori Received: 29 May 2014 at 21:54 JST

Masatsugu MINAMI sama. The seeing was worse

than expected, but first two shots proved to be bearable. Sorry for the limb ghost. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140528/Km28May14.jpg

O....Subject: Mars 2014/05/29-Kumamori Received: 30 May 2014 at 18:25 JST

Masatsugu Minami-sama. Some thin clouds bothered me. It was regrettable because the seeing was so and so. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140529/Km29May14.jpg

○ ···· Subject: Mars 2014/05/31-Kumamori Received: 1 June 2014 at 10:18 JST

Masatsugu MINAMI-sama, Days of fine skies continue, but poor transparency is accompanied. Mars hurries to rise to the meridian, and it becomes gradually difficult to observe Mars from our veranda, though I will try. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140531/Km31May14.jpg

O····Subject: Mars 2014/06/19-Kumamori Received: 20 June 2014 at 22:43 JST

Masatsugu MINAMI-sama. The rainy season without fine days has come. The observation condition is severe, but I will try a bit more. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140619/Km19June14.jpg

Teruaki KUMAMORI (Sakai, Osaka, JAPAN)

• ····Subject: Mars images on last night Received: 11 May 2014 at 15:20 JST

MINAMI-sensei, I finished the processing of the Mars images taken last night. I hope you will check the images. I used this time the AutoStakkert. This is however only concerned with the stacking. To make further processing, we must use the RegiStax.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140510/Ns10May14.jpg

○ ····Subject: Mars images on 31 May Received: 1 June 2014 at 10:52 JST

MINAMI-sensei, Last night (on 31 May) I tried to take the Mars images by the use of my telescope and obtained some images. As often said, the Newtonian looks really much more troubled by the turbulence inside the tube than the refractors. Best regards,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140531/Ns31May14.jpg$

○ ····Subject: Mars images Received: 28 June 2014 at 18:41 JST Minami-sensei, I obtained a couple of sets of images on 25 June. However a cloud patch was quite near, I was not able to wait for 40 minutes, and furthermore I was forced to finish halfway concerning the B image because the cloud arrived. The diameter of Mars has become smaller than expected. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140625/Ns25June14.jpg

Akinori NISHITA (Awara, Fukui, JAPAN)

● ····Subject: mars 10th May UT Received: 26 May 2014 at 20:50 JST

Here are some Mars images from the 10th May UT taken in fair to good seeing. Best wishes

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140510/MVI10May14.jpg

O....Subject: mars 13th May UT Received: 26 May 2014 at 21:38 JST

Here is an image of Mars taken on the 13th May UT in average seeing. Best wishes

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140513/MV113May14.jpg$

○ ····Subject: Mars 23rd May 2014 Received: 27 May 2014 at 22:39 JST

Here is an image of Mars taken on the 23rd May UT in fair seeing conditions. Best wishes

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140523/MVl23May14.jpg

○ ····Subject: Mars 29th May UT Received: 29 May 2014 at 23:01 JST

Here is an image of Mars taken this evening in average seeing. I still have some data to process from earlier this month which I will send as soon as possible. Best wishes

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140529/MVl29May14.jpg

O....Subject: Mars 5th June 2014 Received: 7 June 2014 at 14:06 JST

Here are some images of Mars taken on the 5th June in average seeing. Quite a hazy/cloudy look to Mars today, particularly on the morning limb & towards the NPC on the CM. Best wishes

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140605/MVl05June14.jpg$

Maurice VALIMBERTI

(Melbourne, AUSTRALIA)

● ····Subject: Mo18May_14 Received: 22 May 2014 at 00:22 JST Masatsugu MINAMI-sama. Please find attached Mars images made on 18 May 2014. These were taken beneath a thin cloud. So not so detailed.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140518/Mo18May14.jpg

○ ····Subject: Mo22-30May_14 Received: 1 June 2014 at 22:48 JST

Masatsugu MINAMI-sama, please find attached the Mars images taken on 22, 23 27, 30 May 2014. The seeing on 30 and 31 May comparatively good. Tonight I also expected, but the sky was clouded. The images on 31 will be soon sent.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140522/Mo22May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140523/Mo23May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140527/Mo27May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140530/Mo30May14.jpg

○ ····Subject: Mo31May_14 Received: 7 June 2014 at 02:06 JST

Masatsugu MINAMI-sama, The rainy season came quickly. They say it will be longer than usual. Is it true? Here please find attached the Mars images made on 31 May 2014. Should I weaken the contrast? I think however some details are more readable. I would like to find any lull to shoot Mars.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140531/Mo31May14.jpg

○ ····Subject: Mo13 14June_14 Received: 15 June 2014 at 23:56 JST

Masatsugu MINAMI-sama, After a while I met an interval of cloudless sky. However due to the yellow dust from China, the sky looks yellowish. This is the fact which lessens the contrast of Mars images.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140613/Mo13June14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140614/Mo14June14.jpg

○ ····Subject: Mo18 19 24 June_14 Received: 29 June 2014 at 09:10 JST

Masatsugu MINAMI-sama, Please find here attached the Mars images on 18, 19, 24 June 2014. Yesterday was regrettable: Checking that the planet was shining, I prepared, but at the moment I tried to shoot, the sky was suddenly clouded!

I noticed otherwise some hurricanes on the Images of Ns on 10 May at ω =002°W~012°W, of MJs on 11 May at ω =351°W~001°W, on 12 May at ω =327°W~337°W. With best wishes.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140618/Mo18June14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140619/Mo19June14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140624/Mo24June14.jpg

Yukio MORITA (Hiroshima, JAPAN)

•Subject: Mars and Saturn images 18-May-2014 Received: 20 May 2014 at 20:29 JST

Hi Guys, Yet another evening of reasonable see-



ing. No spots were seen on the Saturn data. Mars was very cloudy on the morning side, and the polar cap seems to have less "ice". Best wishes

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140518/DTy18May14.jpg

O....Subject: Mars and Saturn 25th-May-2014 Received: 27 May 2014 at 22:15 JST

Hi Guys, Here are a couple of images taken one after the other of Mars and Saturn. Once again I was surprised by the comparatively gentle seeing for Saturn after the manic Mars. I guess the lower mag had something to do with it. Going to white light for a Luminance allowed a jump to 30fps and a bit less gain. ADC's make this approach viable at these low declinations.

 $http://www.kwasan.kyoto-u.ac.jp/\sim\!cmo/cmons/2013/140525/DTy25May14.jpg$

There seems to be a faint white spot to the right of Saturn's polar hexagon, I am sure you can compare data with your logs here Trevor. Best wishes

O....Subject: Mars 31-May-2014 Received: 1 June 2014 at 21:18 JST

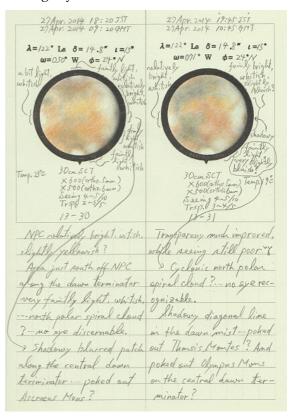
Hi Guys a cloud gap permitted a few avis of a shrinking Mars. Seeing was fair just after sunset. Best wishes

 $http://www.kwasan.kyoto-u.ac.jp/\sim\!cmo/cmons/2013/140531/DTy31May14.jpg$

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

• Subject: Drawings of Mars Received: 20 May 2014 at 16:13 JST

Dear Dr. Minami, I have attached here my piled-up drawings of Mars, very sorry to be late in submitting my observations.



 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140422/Kn22Apr14.jpg $$ http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140423/Kn23Apr14.jpg $$ http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140424/Kn24Apr14.jpg $$ http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140426/Kn26Apr14.jpg $$ http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140427/Kn27Apr14.jpg $$ http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140427/Kn27/Kn27Apr14.jpg $$ http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140427/Kn27/Kn27Apr14.jpg $$ http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140427/Kn27/Kn27/Kn27Apr14.jpg $$ http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140427/K$

Our new clinic/house/my observatory is now being built. I hope I'll be able to back to the normal observation mode by the end of this month.

Clear Skies with Excellent Seeing!

Reiichi KONNAÏ (Fukushima, JAPAN)

• ····Subject: Mars images Received: 3 May 2014 at 16:36 JST

Dear Sirs, Please find the attached Mars image set taken in varied seeing from poor to good.

Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140427/MJs27Apr14.jpg

○ ····Subject: Mars images Received: 15 May 2014 at 19:34 JST

Dear Sirs, Please find the attached Mars image set taken in fair seeing. Best regards, http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140513/MJs13May14.jpg

O....Subject: Mars images

Received: 19 May 2014 at 22:00 JST

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

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140512/MJs12May14.jpg$

○ ····Subject: Mars images

Received: 22 May 2014 at 21:33 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/2013/140511/MJs11May14.jpg

○····Subject: Mars images

Received: 31 May 2014 at 13:45 JST

Dear Sirs, Please find the attached Mars image set taken in fair seeing but with very poor transparency. Best regards,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140525/MJs25May14.jpg$

○····Subject: Mars images

Received: 31 May 2014 at 22:26 JST

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

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140529/MJs29May14.jpg$

○ ····Subject: Mars images Received: 15 June 2014 at 19:43 JST

Dear Sirs, Please find the attached Mars image set from the 7th May. Set taken in varied seeing ranging from poor initially to fair at the end. Best regards,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140507/MJs07May14.jpg$

Mark JUSTICE (Melbourne, AUSTRALIA)

• ···· Subject: Mars Images Ak04May14 Received: 5 May 2014 at 01:15 JST

MINAMI-sama, Please find attached here my Mars images on 4 May 2014. As always, the image is vibrating, but I caught the morning arctic cloud to the NW of M Acidalium. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140504/Ak04May14.jpg

O....Subject: Mars images Ak06May14 Received: 9 May 2014 at 12:45 JST

MINAMI-sama Please find attached Mars images on 6 May 2014. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140506/Ak06May14.jpg

○ ····Subject: Mars images Ak07May14

Received: 11 May 2014 at 19:13 JST

I will attach the Mars images on 7 May 2014. The arctic cloud is bright visible near the terminator.

This time, I visited the Utsunomiya University and was allowed to use a 40cm Cassegrain (*F*/15, Sinden mirror). This facility is located near from Karasuyama just one-hour away by car and hence I may be able to use it when the air seeing condition is better. Best regards,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140507/Ak07May14.jpg$

40cm Cass of the Utsunomiya University



O····Subject: Mars images Ak11May14 Received: 15 May 2014 at 22:57 JST

MINAMI-sama, this is the Mars images on 11 May 2014. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140511/Ak11May14.jpg

O····Subject: Mars images Ak25May14 Received: 25 May 2014 at 22:40 JST

MINAMI-sama, Please find attached the Mars images on 25 May 2014. Fine skies after a while, but with less transparent air. Still visible the arctic cloud at the morning terminator side. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140525/Ak25May14.jpg

Tomio AKUTSU (Tochigi, JAPAN)

• ···· Subject: Bates Mars 05022014 Received: 3 May 2014 at 13:05 JST

See enclosed image: 05/02/2014.

Notes: Syrtis Major clear at 450×.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140502/DBt02May14.jpg

O....Subject: Bates Mars 05042014 Received: 4 May 2014 at 13:41 JST

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140504/DBt04May14.jpg

Donald R BATES (Houston, TX)

• ···· Subject: mars 05/02/2014 Received: 4 May 2014 at 01:13 JST

Hello, Here is a new set of Mars images... Unfortunately with the artefact ghost arc again !!! Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140502/XDp02May14.jpg

○ ···· Subject: Mars 2014/5/14 Received: 17 May 2014 at 03:13 JST

Hello, Here is a new set of Mars images...

Best regards,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140514/XDp14May14.jpg$

○ ····Subject: Mars 2014/5/14 Received: 17 May 2014 at 17:04 JST

Hello, Here is a new set of Mars images... Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140516/XDp16May14.jpg

○ ···· Subject: Mars 2014/05/17 Received: 18 May 2014 at 15:16 JST

Hello, Here is a new set of Mars images, but the seeing was very poor!! Best regards,

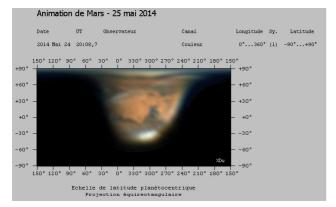
 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140517/XDp17May14.jpg$

○····Subject: Mars 2014/05/24 Received: 25 May 2014 at 06:23 JST

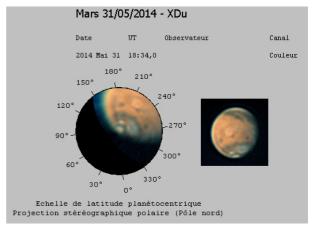
Hello, Here is a new set of Mars images, with a GIF to see the clouds evolution during 2 hours.

Best regards,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140524/XDp24May14.jpg$



○ ···· Subject: Mars 2014/05/31 Received: 2 June 2014 at 02:10 JST Hello, Here is a new set of Mars images. I have a



doubt with the northern clouds: they are far away from Mare Acidalium, but this clouds looks like polar cyclonics clouds, is it possible ???

On the animated GIF we can see that this clouds slightly disappeared without longitudes changes.... Best regards,

O····Subject: Mars 2014/06/07 Received: 8 June 2014 at 23:52 JST

Hello, Here is a new set of Mars images, the first one during daylight... Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140607/XDp07June14.jpg

O....Subject: Mars 2014/06/11 - 14 Received: 15 June 2014 at 19:58 JST

Hello, Here is a new set of Mars images, it becomes very hard for my 7" newtonian !! Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140614/XDp14June14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140611/XDp11June14.jpg

○ ····Subject: Mars 2014/06/18 Received: 20 June 2014 at 03:33 JST

Hi, Here is a new set of Mars images... So small for my 7", but with some details around Tharsis... Best regards,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140618/XDp18June14.jpg$

○ Subject: Mars 2014/06/19

Received: 20 June 2014 at 14:05 JST

Hi, Here is a new set of Mars images... A little better than the 18... Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140619/XDp19June14.jpg
O:...Subject: Mars 2014/06/21

Received: 22 June 2014 at 21:06 JST

Hi, Here is a new set of Mars images...

Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140621/XDp21June14.jpg

○ ····Subject: Mars 2014/06/22 Received: 24 June 2014 at 04:24 JST

Hi, Here is a new set of Mars images...

Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140622/XDp22June14.jpg

○ ····Subject: Mars 2014/06/24 Received: 25 June 2014 at 05:11 JST

Hi, Here is a new set of Mars images... At 9.9", it's harder and harder for my newtonian!!

Best regards,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140624/XDp24June14.jpg$

Xavier DUPONT (Saint Roch, FRANCE) Newton 180 F7, Powermate×5, ADC, I-Nova PLAC+

• ····Subject: Mars Images 2014/04/13 Received: 4 May 2014 at 08:59 JST

Dear, I send you three images.

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

Mars, 2014/04/13 UT 04:06:26 SC LX200UHTC 254mm @ f/28 ASI120MM+RGB @4333/3791/1735 frames @48/42/19 fps S: 5-6/10 - T: NA - Alt: 67°-77°

Comments: Again having good observing conditions was possible to obtain good images of Mars, watching amazing planet surface details during a two-hour rotation. Olympus Mons is observed under clear skies but clouds around, which cover Tharsis Montes and are also abundant in the east and west limb. A concentration of clouds in the equatorial zone it shows. Sinking into the sunset is the Valles Marineris and the Alba region north. In the region of the NPC Lemuria distinctly observed. Best regards,

O····Subject: Mars Images 2014/06/01 Received: 16 June 2014 at 06:53 JST

Dear Masatsugu, Masami, I send you two images. Best regards,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140601/CTr01June14.jpg$

Comments: In the southern hemisphere near the central meridian, the Sinus Meridiani and Sinus

Sabaeus regions are observed; in limbus, the bright Hellas region is observed; towards the equatorial zone Syrtis Major is observed with no news. All this zone is cloud-free without notable weather events. In the equatorial zone a increased cloudiness is observed next to morning side at Niliacus; also there is clouds at NW side of Utopia and apparently some activity of cloud circulation between M Acidalium and the NPC.

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

• ···· Subject: Mars - May 1st, 03:24ut Received: 4 May 2014 at 06:32 JST

Hi Mr. Minami and All!. Here I submit my most recent session from may 1st, Clear Skies!.

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140501/EMr01May14.jpg$

○ ····Subject: Mars Images Received: 18 May 2014 at 07:41 JST

Hi Mr. Minami, Here I submit the corected data from the 4th, 5th (mixed) and my most recent ones under below average conditions. Clear Skie to All!

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140504/EMr04May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140505/EMr05May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140515/EMr15May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140516/EMr16May14.jpg

O····Subject: Mars - May 19th, 01:42ut Received: 20 May 2014 at 11:21 JST

Hi Mr. Minami and All!, Here I submit my latest observation on may 19th under above average conditions. 75 sec. per channel.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140519/EMr19May14.jpg

○ ····Subject: Mars June 11th Received: 12 June 2014 at 14:45 JST

Hi Mr. Minami and All!, Here is my latest session under below average conditions.

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140611/EMr11June14.jpg$

○ ····Subject: Mars - June 13th, 01:17ut Received: 17 June 2014 at 14:01 JST

Hi Mr. Minami and All!, Here I submit my latest observation on June 13th under below average conditions.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140613/EMr13June14.jpg

Efrain MORALES (Aguadilla, PUERTO RICO)

• ···· Subject: Mars: May 3rd, 2014 Received: 4 May 2014 at 13:11 JST

Hi- I have attached my latest image of Mars May 3rd, 2014 at 3:20 UT to be posted. Thanks,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140503/FMI03May14.jpg

O....Subject: Mars: May 6, 2014

Received: 8 May 2014 at 12:46 JST

Hi- I have attached my latest image of Mars May 6, 2014 to be posted. Thanks,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140506/FMl06May14.jpg

○ ····Subject: Mars: May 19, 2014

Received: 21 Man 2014 at 11:32 IST mage of Mars May

19, 2014 to be posted. Thanks,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140519/FM119May14.jpg

O····Subject: Mars: May 26, 2014 Received: 28 May 2014 at 12:39 JST

Hi- I have attached my latest image of Mars May 26, 2014 to be posted. Thanks,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140526/FMl26May14.jpg

O····Subject: Mars: May 30, 2014 Received: 31 May 2014 at 08:22 JST

Hi- I have attached my latest image of Mars May 30, 2014 to be posted. Thanks,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140530/FMl30May14.jpg$

O····Subject: Mars: June 3, 2014 Received: 3 June 2014 at 13:37 JST

Hi- I have attached my latest image of Mars June 3, 2014 at 1:13 UT to be posted. Thanks,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140603/FMl03June14.jpg$

○ ····Subject: Mars: June 7, 2014 Received: 9 June 2014 at 11:40 JST

Hi- I have attached my latest image of Mars June 7, 2014 at 1:43 UT to be posted. Thanks,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140607/FMl07June14.jpg

○ ····Subject: Mars: June 15, 2014 Received: 15 June 2014 at 15:05 JST

Hi- I have attached my latest images of Mars June 15, 2014 to be posted. Thanks,

*** Just a short note that there was a massive dust clouds with a sharp front line on the morning side. Even it was beyond the termination, very brilliant in visually! Then the dust clouds fade toward the middle of the disk and it seemed to be more mottled.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140615/FM115June14.jpg

○ ····Subject: White clouds...not dust clouds. Received: 16 June 2014 at 23:33 JST

I would like to thank some observers who follow up my observation of June 15th.

I was wondering what I had seen and what I have captured in the images. First, there are reports of white clouds over the terminator especially around Elysium area according to Richard McKim of the BAA Mars section and Jim Melka. I may have mistakenly reported as dust clouds instead of white clouds. They may be intense at that moment and dissipated in the second image as Mars rotated. The white clouds burn off by the local afternoon sun.

Visually through the eyepiece, there was some kind of brightness on the east side to the terminator. I might also seen an irradiation effect.

The colors in the images are pale and they are hard to judge in the R, G, B channels. Thay may play a trick. Also, I did not use the IR blocker filter. So, there is a cross pollution information between the R, G, B images.

In the long run, certainly the white clouds were quite intense at the moment but my images were probably exaggerated during the processing to make them look more unusual.

Still, I am hoping someone along the USA east coast including Efrain Morales of PR image around the same time as I did. Otherwise, it would be hard to prove how intense were the white clouds. Thanks,

O....Subject: Mars: June 16, 2014 Received: 19 June 2014 at 12:40 JST

Hi- I have attached my images of Mars June 16, 2014 to be posted. Thanks,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140616/FMl16June14.jpg

O····Subject: Mars: June 17th, 2014 Received: 20 June 2014 at 14:20 JST

Hi- I have attached my latest images of Mars June 17th, 2014 to be posted. Thanks,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140617/FM117June14.jpg

Frank J MELILLO (Holtsville, NY)

CMO #424

● ····Subject: Mars 2014/04/14 Received: 5 May 2014 at 01:19 JST

Hello, here is an image under poor seeing conditions. Morning and evening haze. Frost on Hellas and some thin ECB.

Ser3-0770

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140414/MKd14Apr14.jpg

○ ···· Subject: Mars 2014/04/24 Received: 5 May 2014 at 01:24 JST

Hello, here is an image under very poor seeing conditions. Morning and evening haze. Clouds over Amazonis and Elysium.

 $http://www.kwasan.kyoto-u.ac.jp/\sim\!cmo/cmons/2013/140424/MKd24Apr14.jpg$

○ ····Subject: Mars 2014/04/30 Received: 5 May 2014 at 01:36 JST

Hello, here is an image under poor seeing conditions. Morning and evening haze. Clouds over Olympus, volcanos and Alba Patera. Thin clouds in many places. Some southern hazes

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140430/MKd30Apr14.jpg

○ ····Subject: Mars 2014/05/02 Received: 7 May 2014 at 21:22 JST

Hello, An observation of Planet Mars with average conditions. NPC with Lemuria and Ierne remanents. From Ierne south to Tempe Terra we see some clouds possibly part of the North Polar Vortex. Clouds over Olympus, Tharsis volcanos and Elysium. Light patches of thin clouds in many other places. Some Southern haze is also visible.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140502/MKd30Apr14.jpg full res: http://www.astrovox.gr/forum/album_pic.php?pic_id=17718

○ ····Subject: Mars 2014/05/04 Received: 20 May 2014 at 19:54 JST

Hello, An observation of Planet Mars with average conditions. NPC with Lemuria and Ierne remanents. From Ierne south to Tempe Terra we see some clouds. Some Clouds around Olympus top. Some clouds on Tharsis and volcanos. Faint ECB. Some southern haze is also visible.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140504/MKd04May14.jpg

○ ···· Subject: Mars 2014/05/23 Received: 24 May 2014 at 23:55 JST

Hello, An observation of Planet Mars with average and some good conditions.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140523/MKd23May14.jpg

Clouds in Eden. Long clouds from Borealis to Deuteronilus Lacus. Some clouds in Cecropia. Frost on Hellas.

 $http://www.astrovox.gr/forum/album_pic.php?pic_id=17776$

O....Subject: Mars 2014/05/08 Received: 26 May 2014 at 05:26 JST

Hello, here is an image under very poor seeing conditions. Clouds in Tharsis and Boreum mare. Southern hazes.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140508/MKd08May14.jpg

O....Subject: 2014/05/30 Received: 31 May 2014 at 19:13 JST

Hello, An image under poor seeing and transparency. Distinct South polar haze & Hellas frost. Blue Syrtis cloud. North Polar Cap and Lemuria remanents. Clouds over Utopia to Boreosyrtis has formed.

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140530/MKd30May14.jpg \\ http://www.hellas-astro.gr/sites/default/files/images/observations/mars/2014-05-30-19-05-00_1822.jpg \\ http://www.hellas-astro.gr/sites/default/files/images/observations/mars/sites/default/files/images/observations/mars/sites/default/files/images/observations/mars/sites/default/files/images/observations/mars/sites/default/files/images/observations/mars/sites/default/files/images/observations/mars/sites/default/files/images/observations/mars/sites/default/files/images/observations/mars/sites/default/files/images/observations/mars/sites/default/files/images/observations/mars/sites/default/files/images/observations/mars/sites/default/files/images/observations/mars/sites/default/files/images/observations/mars/sites/default/files/images/observations/mars/sites/default/files/images/default/files/images/observations/mars/sites/default/files/images/observations/mars/sites/default/files/images/observations/mars/sites/default/files/images/observations/mars/sites/default/files/images/observations/mars/sites/default/files/images/observation$

O....Subject: Mars 2014/05/09 Received: 4 June 2014 at 21:11 JST

Hello, poor seeing with some average seeing moments. Clouds around Olympus. Also in Amazonis, in Candor, and Tempe. Southern haze.

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140509/MKd09May14.jpg \\ http://kardasis.weebly.com/mars-2013-14.html$

O····Subject: Mars 2014/05/10 Received: 5 June 2014 at 19:29 JST

Hello, poor to average seeing. Southern haze especially in Icaria & Deuteronilus. Clouds around Olympus. Also from Boreum to Tempe up to Lunae Lacus. Chasma Borealis is visible. Also some small isolated NPC remnants south of the main NPC body.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140510/MKd10May14.jpg

O....Subject: Mars 2014/05/12 Received: 10 June 2014 at 21:45 JST

Hello, here is a set under very poor seeing. Southern haze. Clouds on Tharsis, Eden and Tempe.

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140512/MKd12May14.jpg$

○ ····Subject: Mars 2014/05/13 Received: 10 June 2014 at 21:47 JST

Hello, average seeing. Southern haze. Clouds on Tharsis, Eden and Tempe. Chasma Borealis is visible.

Ser3-0771

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140513/MKd13May14.jpg$ ○ ····Subject: Mars 2014/05/17, 20, 22 Received: 19 June 2014 at 20:50 JST

Hello, here is a set under very poor seeing.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140517/MKd17May14.jpg Southern haze. Clouds at Tempe.

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140520/MKd20May14.jpg$

Hellas frost. Clouds at Mare Acidalium, Ortygia, Cydonia.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140522/MKd22May14.jpg

Hellas frost. Clouds at Mare Acidalium, Ortygia and south of Cydonia/06/01 Received: 20 June 2014 at 20:39 JST

Hello, An image under poor seeing. South polar haze. North Polar Cap and Lemuria remnants. Clouds north of Utopia.

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140601/MKd01June14.jpg$

○ Subject: Mars 2014/06/05 Received: 30 June 2014 at 04:57 JST

Hello, An observation of Planet Mars with poor conditions. Southern Clouds. Clouds in Eunostos north of Cerberus. Clouds in Cerbenia. Lemuria remnants.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140605/MKd05June14.jpg

Manos KARDASIS (Glyfada-Athens, GREECE)

• Subject: Mars 2014-05-03 21h35 UT Received: 5 May 2014 at 04:55 JST

Hello, Mars last night 2014-05-03 21h35 UT.

Olympus Mons with orographic clouds. On the edge Tharsis volcanoes there too orographic clouds. Left on the edge morning clouds (light blue) I have more observing from that night, which probably come very shortly.

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140503/RBs03May14.jpg$

Mars Height: 34 degrees

Diameter: 14.3 "

Central meridian: 176.08

Telescope C14 and Basler Ace CCD

Mars in blue light

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140503/RBs03May14_B.jpg

Date 03-05-2014

19h58 to 21h44 UT Recording Time (12 images)

Almost two-hour rotation. It is not about the reso-

lution but the clouds in blue light. Clearly shows that the cloud has changed over a period of less than 2 hours. Left the morning clouds. Around Mount Olympus is seen that approaching the night the cloud increases. Ditto for Tharsis region. Around the NPC (right on the edge) see that the evening clouds also increases. Just wanted to share this beautiful clouds spectacle with you. Online link if the gif does not work: Regards,

http://www.astrofotografie.nl/mars_b_animation.html

Richard BOSMAN

(Enschede, the NETHERLANDS)

● ····Subject: Mars M140507 ishibashi Received: 8 May 2014 at 10:56 JST

This is ISHIBASHI; The seeing is not stable. Hellas and Syrtis Mj which were visible when I started observing went to the rear side. There are seen two white clouds (?) at the rhs of the npc.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140507/Is07May14.jpg

○ ····Subject: Mars images M140511 ishibashi Received: 12 May 2014 at 10:27 JST

This is ISHIBASHI; Hellas is very white and looks like a polar cap. The npc is detached. The morning mist appears to become thicker. The evening mist is not conspicuous.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140511/Is11May14.jpg

○ ····Subject: Mars, M140523 ishibashi Received: 24 May 2014 at 12:02 JST

This is ISHIBASHI; I think this is a better shot. Elysium appeared roundish light near the CM. Is the bright matter seen at the rhs of the npc a cloud? There seems to exist a bright cloud around at 40°N~50°N near the preceding limb.

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140523/Is23May14.jpg$

○ ····Subject: Mars M140530 ishibashi Received: 31 May 2014 at 15:11 JST

This is ISHIBASHI; The diameter has considerably shrunk, while the seeing is stable to show some minor markings, anf the images are so-so. The morning cloud looks to be gradually thicker.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140530/Is30May14.jpg

○ ···· Subject: Mars 140601 ishibashi Received: 2 June 2014 at 08:50 JST

Ser3-0772 _____ CMO #424

This is ISHIBASHI at Sagamihara. It was hot at the day time, and so I expected a better air, but it was not so as I exoected. Is it Alba? near the CM a bit downward. Solis L and Daedalia are not so dark.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140601/Is01June14.jpg

O....Subject: Mars 140615 ishibashi Received: 16 June 2014 at 10:22 JST

This is ISHIBASHI. The npc now quite smaller. Is the evening Syrtis Mj accompanied by an evening mist? To the west of M Acidalium, there seems to exist a morning mist. S Meridiani is shot, but Simus Sabaeus is obscure. Margaritifer S is shadowy. At ω =019°W, there was floating a thin cloud, and so I made the image smaller: This was better because the image turned out to be a bit contrasty.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140615/Is15June14.jpg

Tsutomu ISHIBASHI (Kanagawa, JAPAN)

● ····Subject: Mars observation May 7th 2014 Received: 8 May 2014 at 19:37 JST

Dear Mr. Minami, Please find attached an observation I made of Mars last night, the 7th May from my back garden here in Bungendore. The seeing was not so good, hence I could only use a small fraction of the image stack to produce the attached LRGB image. Syrtis Major was on the preceding limb, and what I believe to be the polar storm was clearly seen on the following limb at the northern edge of M Acidalium especially in the blue filter. It was also clearly seen by eye, which made for a very impressive view. Hellas was also very bright, and there were some clouds over Chryse. Thank you and all the best,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140507/DWr07May14.jpg

O....Subject: Mars observation May 13th Received: 14 May 2014 at 17:34 JST

Dear Mr. Minami, Please find attached a set of LRGB images of Mars taken last night (May 13th). The conditions were quite steady so I tried to integrate a little longer, 7 minutes in each filter time as an experiment.

Syrtis Major was close to the meridian, and Hellas was still very bright. There was also some cloud

over Elysium and delicate cloud detail on the limb over Arabia/Moab. The planet is now becoming noticeably gibbous. Thank you and all the best,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140513/DWr13May14.jpg

David WELDRAKE (NSW, AUSTRALIA)

• ····Subject: mars 3 may Received: 5 May 2014 at 19:31 JST

Hi all, Poor seeing & unstable atmosphere. I took one image of Mars. PLS see it. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140503/SGh03May14.jpg

O....Subject: mars.8.may Received: 10 May 2014 at 08:52 JST

Hi all, Average condition & cloudy. I took some images from Mars. PLS see them. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140508/SGh08May14.jpg

O....Subject: mars.11.may Received: 14 May 2014 at 04:26 JST

Hi all, Bad seeing & unstable atmosphere. I took one Martian image. PLS see it. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140511/SGh11May14.jpg

O····Subject: mars 12 may Received: 15 May 2014 at 07:33 JST

Hi, Weather here not good: always thunderstorm Jet-stream is strong this is my stories. PLS see it. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140512/SGh12May14.jpg

○ ····Subject: mars.31.may Received: 3 June 2014 at 06:19 JST

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

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140531/SGh31May14.jpg$

○ ····Subject: mars 7 june Received: 9 June 2014 at 04:07 JST

Hi all, I have attached RGB Mars images from 7 June. Condition was very bad. Regards

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140607/SGh07June14.jpg

Sadegh GHOMIZADEH (Roudehen, IRAN)

• ····Subject: Re: possible cyclone?

Fw: Mo01May_14

Received: 6 May 2014 at 02:05 JST

Dear Masatsugu and Reiichi, Yes, cyclones have been caught by several observers recently and we should have also enough data to study both their seasonal and daily evolution (the last one is not within reach of spatial probes!), Best wishes.

O····Subject: Mars images - 3rd may 2014 Received: 7 May 2014 at 23:58 JST

Hi all, Here are 5 RGB+IR series taken on May 3rd taken every 40 mn. Seeing was correct. They show the growth of Tharsis afternoon clouds over the volcanoes and the dissipation of Elysium morning hazes. Good observations,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140503/CPl03May14.jpg

http://www.astrosurf.com/pellier/M2014_05_03-CPE

Here is an animation:

http://www.astrosurf.com/pellier/M2014 05 03-CPE RVBanim

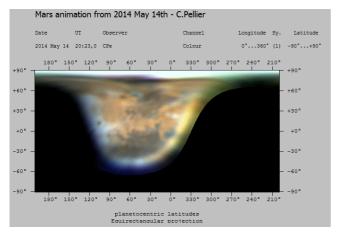
○ ···· Subject: Moving cloud front on Mars 05/14 Received: 20 May 2014 at 05:47 JST

Hi all, These past evenings I have been observing Mars with a regular spacing of imaging and during as many hours as possible, as this is the best way to image the red planet.

For the night of May 14th, I'm seeing 2 to 3 successive cloud fronts near the polar cap with a cloud-free post-frontal area (see blue light). The central one over Mare Acidalium has moved eastward during the two hours and half.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140514/CPI14May14.jpg See animation :

 $http://www.astrosurf.com/pellier/M2014_05_14\text{-}CPE_RVBanim$



Quick WinJupos measurements say that the front has shifted around 10° during the session, this would represent 350 km in distance at a speed of 130 to 140 km/h. I will study more on this :)

Here is the full set (6 RGB series):

http://www.astrosurf.com/pellier/M2014_05_14-CPE

Note also dissipating Tharsis morning hazes around the summits of the volcanoes. Best wishes,

O....Subject: Mars images 15th May 2014 Received: 25 May 2014 at 21:55 JST

Hi all, Here is a 5-series RGB set from the 15th (still have the 17th to send as well).

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140515/CPl15May14.jpg

A front is maybe moving again, but data is of less good quality and the longitude shift smaller as well (2-3° only over the same range of time) Best wishes, http://www.astrosurf.com/pellier/M2014_05_15-CPE

Christophe PELLIER (Nantes, FRANCE)

• ·····Subject: CC: Mars Observations Received: 8 May 2014 at 09:30 JST

Hi Don, I had a good night last night; good views of Jupiter, the Moon and Mars. My Mars observing report from last night is attached. I have also attached separate tonal drawings from my observations of last night and April 24th (as I routinely did during the last Mars apparition). I regret not trying to image last night because the seeing turned out far better than what I experienced on April 24th. By the way, I realize you're probably inundated with incoming Mars photos, but have you had a chance to look at the two images I sent you last month? I'd appreciate any comments or suggestions you might have. Thanks & regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140506/JAl06May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140424/JAl24Apr14.jpg

Jay ALBERT (Lake Worth, FL)

• Subject: Mars image - May 6 Received: 10 May 2014 at 13:37 JST

Gentlemen, Seeing was remarkably good, but transparency was not. These images were captured through a variable density cloud layer. I had to constantly adjust camera gain so as not to saturate the images. Because of the good seeing a lot of detail can be seen in the blue channel. Fine wispy clouds were captured. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140506/PGc06May14.jpg

Ser3-0774 _____

O....Subject: Mars image - May 12 Received: 13 May 2014 at 19:03 JST

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

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140512/PGc12May14.jpg

O....Subject: Mars image - May 14 Received: 14 May 2014 at 16:36 JST

Gentlemen, Here is a set of Mars images captured in good seeing. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140514/PGc14May14.jpg

O....Subject: Mars images - May 19 Received: 21 May 2014 at 22:35 JST

Gentlemen, Here are several sets from May 19. Seeing was no better than average. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140519/PGc19May14.jpg

○ ····Subject: Mars image - May 25 Received: 26 May 2014 at 01:19 JST

Gentlemen, This set of images is from May 25. Seeing was about average, but the transparency was poor. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140525/PGc25May14.jpg

O····Subject: Mars image - May 26 Received: 27 May 2014 at 01:51 JST

Gentlemen, This set of images is captured in less than average seeing through a layer of thin clouds. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140526/PGc26May14.jpg

O....Subject: Mars image - June 2 Received: 5 June 2014 at 13:27 JST

Gentlemen, These images from June 2 were captured in above average seeing. Seeing was above average at the beginning of the night, but quickly deteriorated. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140602/PGc02June14.jpg

O....Subject: Mars image - June 3 Received: 6 June 2014 at 12:14 JST

Gentlemen, This set of images was captured during very good seeing. Regards,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140603/PGc03June14.jpg$

O····Subject: Mars image - June 7 Received: 7 June 2014 at 23:46 JST

Gentlemen, This set of images was captured in less than average seeing. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140607/PGc07June14.jpg

O....Subject: Mars image - June 8

Received: 22 June 2014 at 01:50 JST

Gentlemen, Attached is a set of images from June 8. Seeing was above average, Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140608/PGc08June14.jpg

O····Subject: Mars image - June 16 Received: 23 June 2014 at 02:06 JST

Gentlemen, This set of images is from June 16. Seeing was less than average. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140616/PGc16June14.jpg

O....Subject: Mars image - June 23 Received: 30 June 2014 at 00:17 JST

Gentlemen, Attached is a set of images from June 23. Seeing was good. Regards,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140623/PGc23June14.jpg$

Peter GORCZYNSKI (Oxford, CT)

• ····Subject: Mars May 11, 2014 Received: 12 May 2014 at 18:53 JST

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140511/JKz11May14.jpg$

O....Subject: Mars May 12, 2014 Received: 12 May 2014 at 22:04 JST

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140512/JKz12May14.jpg

John KAZANAS (Melbourne, AUSTRALIA)

• ····Subject: Mars Observation (May 5, 2014) Received: 13 May 2014 at 05:05 JST

Dear Mr. Murakami, I made an observation of Mars on May 5, 2014 (03:30 U.T. or 11:30 PM EDT) using my 9-inch (23-cm) *F*/13.5 Maksutov-Cassegrain (190× and 258×).

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140505/CHr05May14.jpg$

The North Polar Cap (NPC) was small and irregular surrounded by a very dark to dark (2-3/10) collar. A very bright (8/1) and elongated streak was visible South and preceding the central meridian (CM) which may represent an ice remnant, water-ice cloud, or possibly a localized dust storm. Panchaia, Utopia, and Umbra appeared dark to dusky (3-4/10) South of the NPC. Casius was a spear-like dark (3/10) albedo feature following the CM. Elysium appeared as a bright (7/10) circular feature with a localized bright to very bright (7-8/10) feature over it's following half (cloud?) towards the preceding limb. Chaos, Morpheos Lacus, and Hyblaeus appeared dark to dusky (3-4/10) over the Northfollowing corner of Elysium. Mare Cimmerium and Mare

Tyrrhenum appeared dark to dusky (3-4/10) towards the South separated by a bright (7/10) Hesperia. Dusky to dull streaks were noted over the northern border of Mare Cimmerium over Zephyria and Aeolis. I noted the Syrtis Blue Cloud over Syrtis Major (3-5/10) towards the following limb. The "Syrtis Blue Cloud" is a discrete topographic (localized) cloud composed of water-ice aerosols and carbon dioxide crystals that forms over the Libya basin and Syrtis Major Planum (8.4°N, 69.5°E; originally thought to be a plain but found to be a Hesperian age (3.7-3.0 Billion years) low-angle basaltic plains volcano by the Mars Global Surveyor) during late spring and early summer of the northern hemisphere. This cloud gives Syrtis Major a "bluish" appearance that was first noted in 1858 by the Italian astronomer Pietro Angelo Sechhi (1818-1878; Director of the Roman College Observatory in Rome) who named it the "Blue Scorpion." This cloud is best seen when Syrtis Major is near the limb. Isidis Regio and Libya contained very bright (8/10) clouds over them.

The best of luck to you, your fellow Recorders, Dr. Minami, and all CMO Mars observers. Regards,

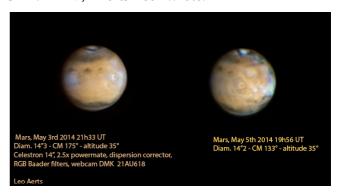
Carlos E HERNANDEZ (Miami, FL)

• ···· Subject: Re:Martian volcanoes: what Mellish saw Received: 13 May 2014 at 06:55 JST

Dear Leo, These images are truly remarkable.... A number of years ago, I looked into the circumstances of Mellish's famous (infamous?) observation with the Yerkes refractor. He was looking at the planet very nearly under the circumstances shown in the second of your images (5 Mei), and I think at last we can say, to a reasonable degree of certainty, what he was seeing. As he told Walter Leight in 1935, he realized there was "something wonderful about Mars, it is not flat but has many craters and cracks. I saw a lot of the craters and mountains one morning with the 40" and could hardly believe my eyes." Here were indeed the "mountain ranges and peaks and craters and other things both dark and light..." that he remembered having seen from Barnard's drawings of 1892/94. I think in any case

we can say that he did see that Mars was not the flat canal-covered surface that most people of the time believed in. Best, Bill

On 7:17 AM, "Aerts Leo" wrote:



Dear Bill, Herewith a compilation of recent observations of Martian volcanos. All information on the picture.

As already mentioned I am next week on Cyprus, with Mars high in the sky ... but without any telescope. Will afterwards go on following Mars as long as possible.

Best regards, Leo

Bill SHEEHAN (Willmar, MN)

• ····Subject: Mars 3 May 2014 Received: 13 May 2014 at 10:21 JST

Dear Sir, Attached find my Mars image of 3 May 2014. The seeing was average, but there were a lot of orographic clouds. The double nuclei above M. Olympus are striking as well as the cyclone near the polar cap. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140503/JSb03May14.jpg

John SUSSENBACH

(Houten, the NETHERLANDS)

• ··· Subject: MARS Observations on April 23, 2014 Received: 13 May 2014 at 11:35 JST Some turbulent seeing for these.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140423/FWl23Apr14.jpg

O....Subject: MARS Observations on April 24, 2014 Received: 13 May 2014 at 11:37 JST

Again turbulent seeing for these sets.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140424/FWI24Apr14.jpg

Freddy WILLEMS (Saint Johns, FL)

• ·····Subject: Mars, May 21st and 23rd 2014 Received: 24 May 2014 at 00:53 JST

Here are images taken from Houston Texas May 21st at 02:27 UT and May 23rd at 03:07 UT.

http://www.egrafton.com/mars-2014-21-may_02-27ut.jpg

http://www.egrafton.com/mars-2014-23-may_03-07ut.jpg

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140521/EGf21May14.jpg

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140523/EGf23May14.jpg

Ed GRAFTON (Houston, TX)

●·····Subject: Some Mars Received: 25 May 2014 at 06:23 JST

starting, but the seeing was bad.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140417/JSv17Apr14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140504/JSv04May14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140515/JSv15May14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140521/JSv21May14.jpg
http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140523/JSv23May14.jpg

O····Subject: mars 20140525 Received: 26 May 2014 at 18:50 JST

Mars yesterday. Seeing 4 and clouds

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140525/JSv25May14.jpg I have reprocessed the 20140514 mars and add the data text to image.

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140514/JSv14May14.jpg

Josep SOLDEVILLA (Barcelona, SPAIN)

● ·····Subject: Mars 22 May Received: 27 May 2014 at 08:43 JST

Hi All, I have attached RGB Mars images from 22 May. The peaks of Ascraeus and Pavonis Montes are seen above bright Tharsis clouds. S. limb Cloud is over Argyre. Wispy clouds are seen over Erythraeum - Coprates. Best,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140522/DPk22May14.jpg

○ ····Subject: Mars 26 May Received: 27 May 2014 at 12:56 JST

Hi All, I have attached RGB Mars images from 26 May. The seeing was highly variable. There was a large diffuse cloud over Candor-Tempe with wisps across southern Chryse. Clouds were over Cydonia and Deucalionis. A southern limb cloud is seen over Argyre. Best,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140526/DPk26May14.jpg$

○ ····Subject: Mars 28 May Received: 30 May 2014 at 12:39 JST

Hi All, I have attached RGB Mars images from 28 May. There was Strong Blue Clearing (2-3/3). This was also also noted visually by Jeff Beish who observed with me. A large cloud was seen curling around Acidalium from Tempe across Chryse. Numerous small clouds are seen, including a bright cloud in northern Arabia. A bright cloud is seen over Argyre on SW limb. Best,

O....Subject: Error on previous Mars image Received: 30 May 2014 at 13:10 JST

Hi All, I put the wrong date on the 28 May Mars image. It should be 29 May. I have resubmitted the image with the correct parameters. Sorry for the inconvenience! More senior moments! Best,

 $http://www.kwasan.kyoto-u.ac.jp/\sim cmo/cmons/2013/140529/DPk29May14.jpg$

O....Subject: Mars 6 June, NPC dust Received: 7 June 2014 at 10:22 JST

Hi All. I have attached RGB Mars images from 6 June. A small dust cloud is seen curving into eastern border of the NPC. The Elysium cloud is bright. A large cloud in Aeria extends across the Syrtis plateau (Syrtis Blue Cloud) into Isidis and coalescing with clouds near Elysium forming an Equatorial Cloud Band (ECB). There is a large cloud over Utopia. Best,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140606/DPk06June14.jpg

Don PARKER (Coral Gables, FL)

• ····Subject: Mars Jun. 01 Received: 1 June 2014 at 18:09 JST

Our temps are over 100F now which lead to better seeing at night. It's not Parker/Peach quality but good for my site. Regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140601/RHI01June14.jpg

Richard HILL (Tucson, AZ)

• ····Subject: Mars 30th May Received: 3 June 2014 at 03:08 JST

Mars is shrinking now at only 11.9" dia. Syrtis Major prominent. Average seeing. regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140530/PEd30May14.jpg

Peter EDWARDS (West Sussex, the UK)

• Subject: Mars on June 1st and June 2nd 2014 Received: 4 June 2014 at 03:25 JST

Dear All, Please find herewith to results of the fast receding Mars (11"6-11"7). All information on the pictures. Best regards,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140601/LAt01June14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140602/LAt02June14.jpg

Leo AERTS (BELGIUM)

• Subject: Mars Images - May 5- 6 and June 11-12 Received: 20 June 2014 at 02:18 JST

Dear Masatsugu and Masami, Sorry for the delay but I finally had time to process some images of Mars that I acquired in May and June. Attached you will images from 5 May, 6 May, 11 June and 12 June. I'll try to get a few more before Mars slips behind the trees in my backyard! I hope you both are doing well. Best wishes,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140505/WFI05May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140506/WFI06May14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140611/WFI11June14.jpg http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140612/WFI12June14.jpg

O····Subject: RE: Re: Mars Images - May 5- 6 and June 11-12 Received: 20 June 2014 at 08:05 JST

Dear Masatsugu, It is good to hear from you. I hope I can contribute more before Mars gets much smaller. And thanks again for all your hard work with the CMO and ISMO. You are an inspiration for all of us Mars observers! Time seems to move

much too swiftly but I am also hoping that some things will come slower. Take care,

Bill FLANAGAN (Houston, TX)

• ··· Subject: Mars images (April 24th, 2014.) Received: 30 June 2014 at 04:56 JST

Hi all, Here are some images from April 24th under excellent conditions. Syrtis Major and Hellas are nicely seen. Best Wishes,

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140424/DPc24Apr14.jpg http://www.damianpeach.com/mars1314/2014_04_24rgbs.jpg

O....Subject: Mars images (April 26th, 2014.) Received: 10 July 2014 at 06:36 JST

Hi all, Here are some images from April 26th. Seeing was excellent. Syrtis Major central on the disk with Hellas bright. Best Wishes

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140426/DPc26Apr14.jpg http://www.damianpeach.com/mars1314/2014_04_26rgbs.jpg

O····Subject: Mars images (April 27th, 2014.) Received: 18 July 2014 at 05:15 JST

Hi all, Here are some Mars images from April 27th. Syrtis Major and Hellas are well placed with Elysium crossing over the bright limb shrouded in clouds. Best Wishes

http://www.kwasan.kyoto-u.ac.jp/~cmo/cmons/2013/140427/DPc27Apr14.jpg http://www.damianpeach.com/mars1314/2014_04_27rgbdp.jpg

Damian PEACH (Selsey, WS, the UK)



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CMO #424/ ISMO #50 (25 July 2014)

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