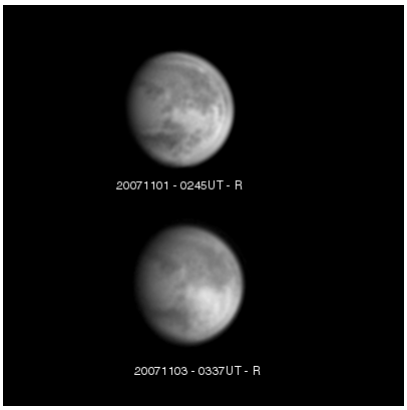
火星2007-08年

月惑星研究会関西支部
伊賀祐一

三品利郎氏情報（2007年11月4日）



イギリス、フランスやポルトガルでは、クリセ(Chryse)からニリアカス（Niliacus）、ニロケラス（Nilokeras）にかけてのダスト・ストームが観測されています。

US火星観測者MLにアップされたメールを転載します。

1　アンドレアさんから

Dust event (possibly storm) in Chryse-Niliacus Lacus

こんにちは、皆さん

私は、これが、重要なダストの事象かもしれないと思う。

11月1の画像は、おそらく実際の主要は先端がCydoniaから発したダスト（それが本当だとすれば）の前部がNiliacusの東にある。今日の画像は、Niliacus Lacus から Achilles Fonsまでのアルベド模様が見えなくなるか霞んでいるのが殆どの写真に写っている。Chryuselは比較すると明るくノッペリしている。青の画像には輝いているものの他は何も見えない。

後で、もっと沢山の画像を掲載する。

今、私は、氷のように固まっている。

http://www.geocities.com/andreatax/Temp/mars_20071101-03-DustEvent.jpg

アンドレア、T.

三品利郎氏情報（2007年11月4日）

２　サンチェさんから

New storm activity

私は、Nilokeras, Mare Acidalium and Chryseの新たな動きをお知らせする。

11月2日の画像で見られる。最も輝いているのは、Nikokerasの3つのスポットである。

また、ChryseはIRでハイライトになっている。

以下で見られる。

http://astrosurf.com/astropasion/Mars2007/

三品利郎氏情報（2007年11月4日）

３　カスキンハさんから

RE: 2 November: New Storm ?

こんにちは。

まだ、予備の処理中だが、私は、この現象について何がしかの情報を引き出せるように一連の画像処理を変えたところだ。

Achilis FonsとIdaeus Fonsに達する著しい変化がNiliacus　Lacusに起きている。

http://www.astrosurf.com/pcasquinha/mars_dust.jpg

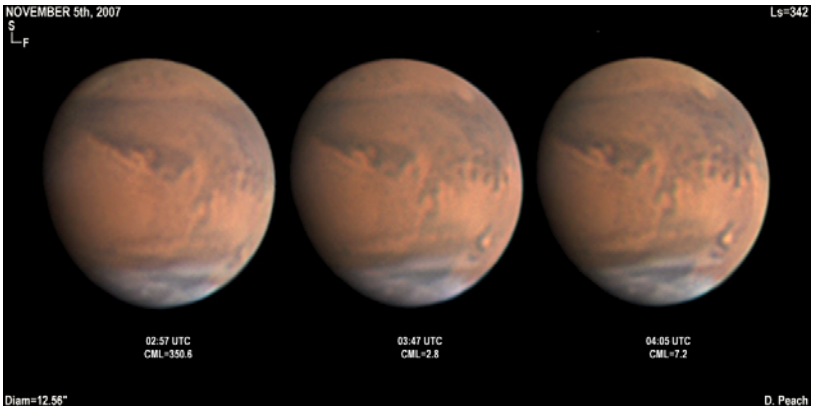
極冠についてのペリエの見解（2007年11月19日）

ロルフさんが昨日、彼の画像ととダミアンさんの画像からとても面白いアニメーションを作った。

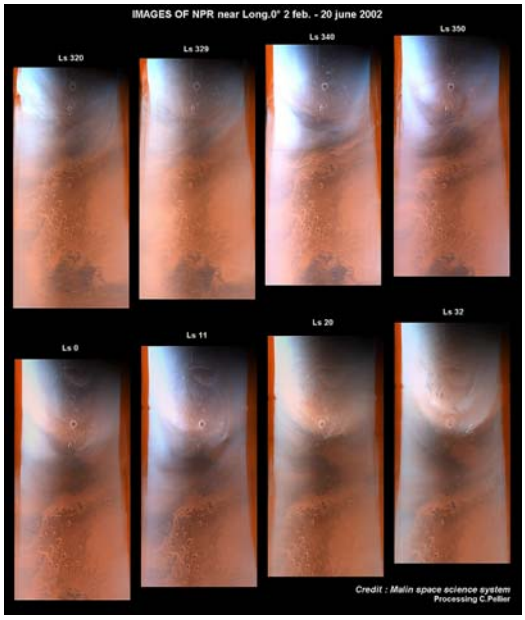
画像には、私見ではあるがいくつかの**地面に出来た極冠の中に霜に覆われたクレーターである永久的な白斑**がある。

極冠が形成されるかどうか評価するいくつかの要素を、私が皆さんに提案しようという動機となった。

私の個人的な見解は、**極冠は春分前の冬の間に形成される**ということである…



極冠についてのペリエの見解（2007年11月19日）



私は2002年に季節の範囲、Ls320からLs30までのMGSの広域画像からのその領域のモンタージュを作った。

クレーターは明瞭に認識できる--より大きいものはさらに北であるが、それは確かに、アマチュアの画像の縁の方に見える。

私には、このモンタージュから、**Ls320で既に完全に形成されている極冠**が見えている。Ls350付近で、地面に詳細に見えるものは、既にLs320-330で観測

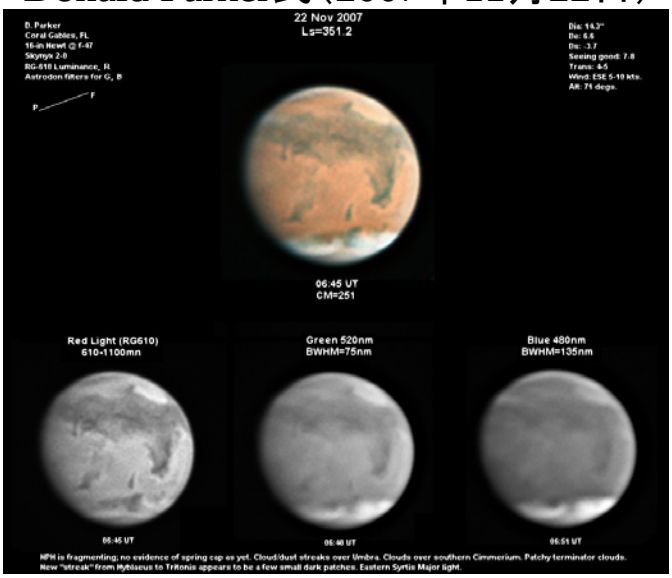
できるので、その本質は進展していない。:CO2の氷により早く決着をつけた。

極冠の縁は私たちのクレーターの南に見つけられる。そして、Ls350で観察可能である。

極冠の縁はLs0でクレーターを通過する。そして、それはLs20-30の間で解けた。

Ls320とLs30の間のクレーターの周辺を比較しなさい。:アルベド模様はLs320で見られない。

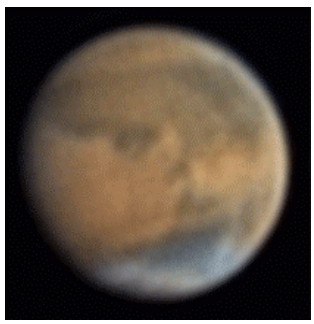
Donald Parker氏（2007年11月22日）



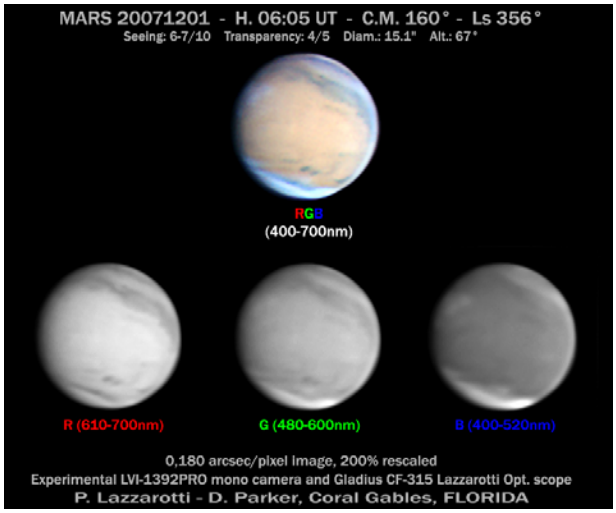
The NPH is fragmenting; no evidence of spring cap as yet. Cloud/dust streaks over Umbra. Clouds over southern Cimmerium.
The new "streak" from Hyblaeus to Tritonis appears to be a few small dark patches. Eastern Syrtis Major appears rather light.

北極雲の動画：熊森照明氏（2007年11月22-24日）

３日間の画像でアニメを作ってみました。
北極雲がダイナミックに変化しているのが良く分かると思います。
模様の位置合わせが悪く、船酔いしそうですが、ご容赦ください。



Paolo R. Lazzarotti氏（2007年12月01日）

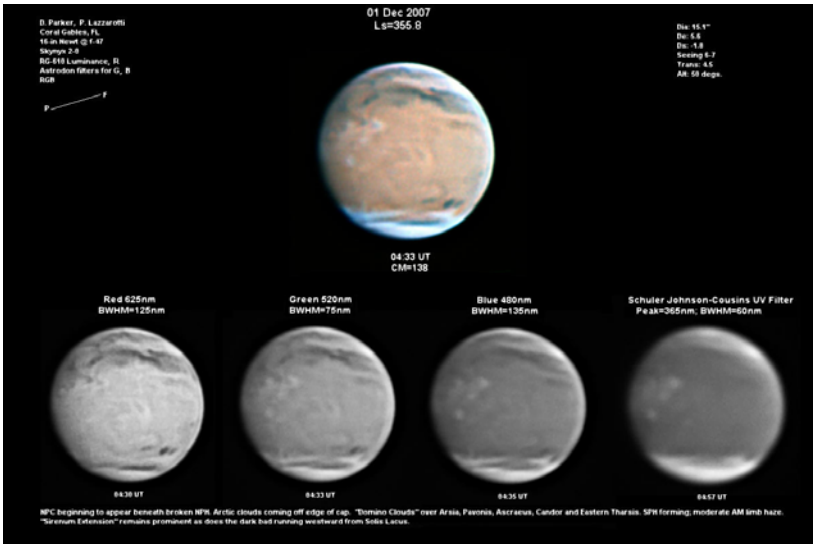


I'm right now in Don's house in Coral Gables and we're having a lot of fun together! Weather is very fine with hot temps.

Find attached the first martian image we grabbed together. I used my own Gladius fitted above his Paramount.Notice the beatiful NPH which is revealing the icy polar cap just below clouds. Orographic clouds also above vulcanoes and the SPC as well.

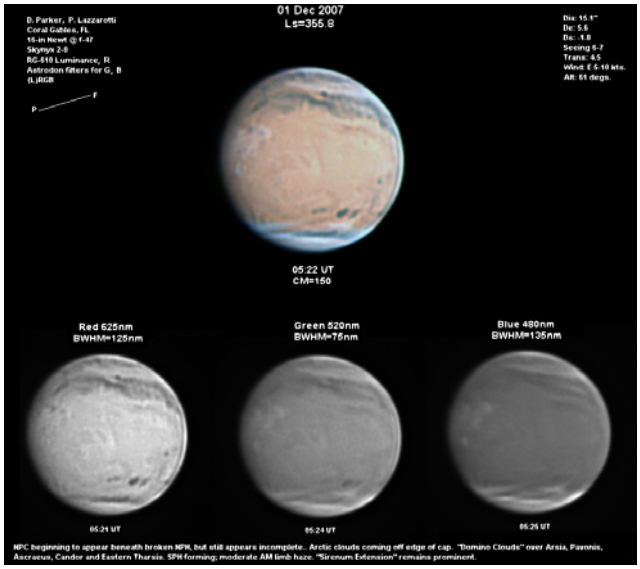
As note apart, it's really interesting and educative to stay aside Don all the time (night and day) and - let me say - it's an unique privilege to make it work! :-))

Donald Parker氏（2007年12月01日）



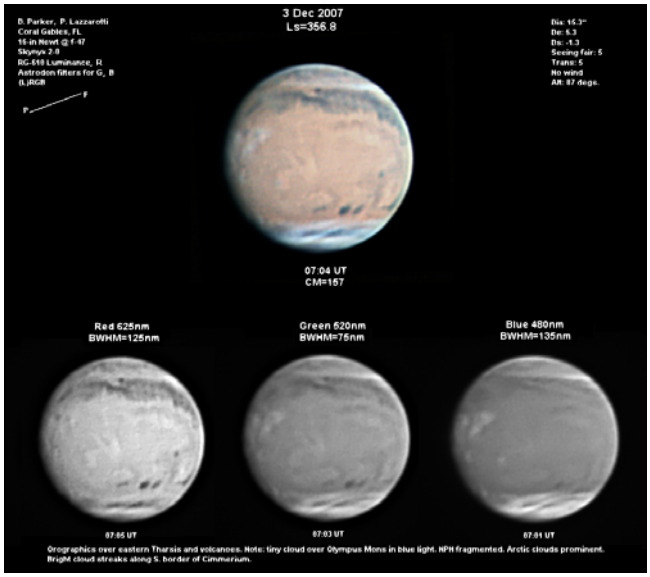
The NPC is beginning to show through the fracturing NPH. There is much arctic cloud activity. The "Domino Clouds" over Candor-Tharsis are becoming very prominent. Even the "dull side" of Mars is now exciting! More to follow: Paolo is making me work! :-))

Donald Parker氏（2007年12月01日）



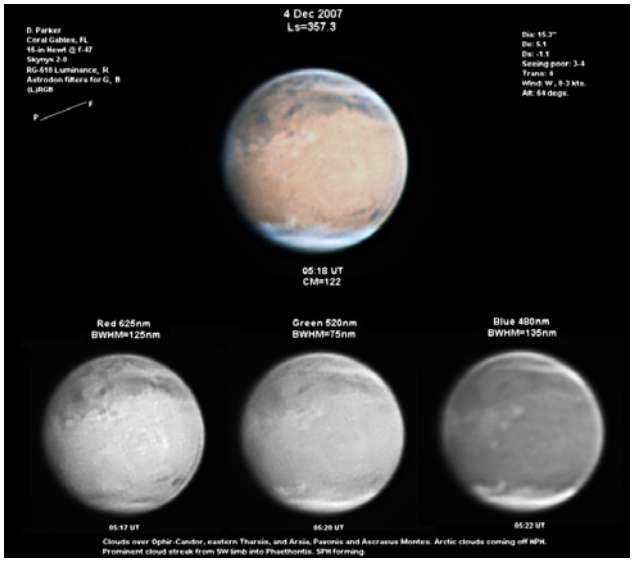
I have attached some more images taken by Paolo Lazzarotti and me on 1 December. It appears that the NPC formation is still incomplete.

Donald Parker氏（2007年12月03日）



Orographics over eastern Tharsis and volcanoes. Note: tiny cloud over Olympus Mons in blue light. NPH fragmented. Arctic clouds prominent. Bright cloud streaks along S. border of Cimmerium.

Donald Parker氏（2007年12月04日）

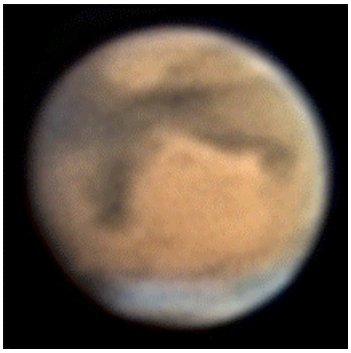


Clouds over Ophir-Candor, eastern Tharsis, and Arsia, Pavonis and Ascraeus Montes. Arctic clouds coming off NPH. Prominent cloud streak from SW limb into Phaethontis. SPH forming.

北極冠：熊森照明氏（2007年12月05日）

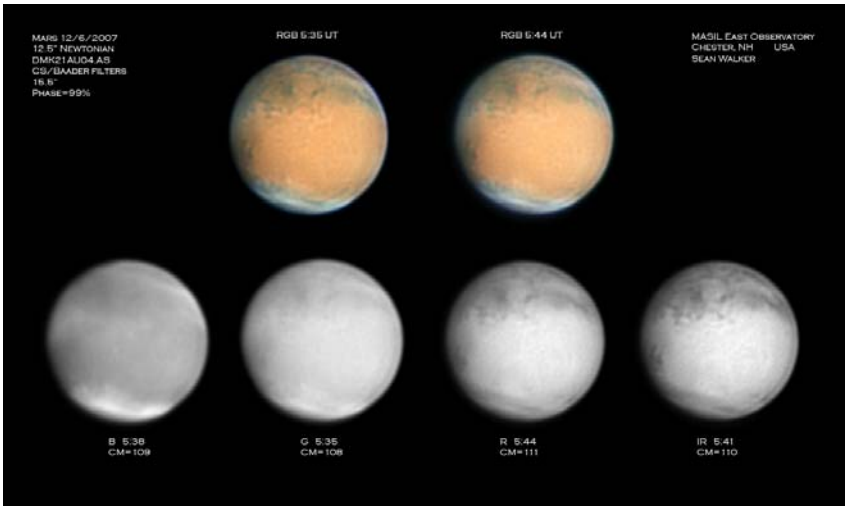
北極雲が淡くなり、北極冠が見えているように思えます

北極雲の動画：熊森照明氏（2007年11月30日～12月5日）



11月30日～12月5日分をアニメにしてみました。
北極雲の動きと北極冠？が見え始めたような姿を見ることができます。
大シルチスが左から右へ動くときが正しい時系列になっています。
相変わらず船酔いしそうですがご容赦ください。

Sean Walker氏（2007年12月06日）



Very good conditions this morning, though COLD (18 F when I ran in the house to thaw out)!

Note the orographic clouds around all four volcanoes, plus the clouds in Valles Marineris, as well as Phaethontis.

The area (volcanic planes?) surrounding Olympus Mons much more visible in IR, though none was used in the RGB versions presented here.

Sean Walker氏（2007年12月06日）

From: Paolo R. Lazzarotti [paolo@lazzarotti-optics.com]

Sent: Friday, December 07, 2007 9:41 AM

Subject: Re: Mars 12/06

Hi Sean!

Nice to see the sweet fruit of your brave job under such cold temps!

Great images although too "spotty". You might want to soften the deconvolution.

From: Sean Walker <swalker@skyandtelescope.com>

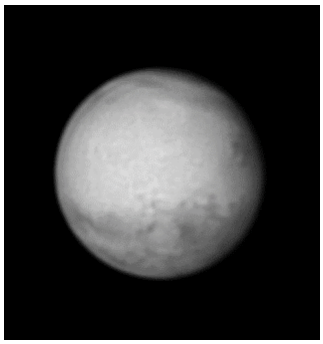
Date: Fri, 7 Dec 2007 15:37:56 -0800

Subject: RE: Mars 12/06

Thanks Paolo-

I beg to differ on the "spottyness". Much of it is real detail. Attached is an animation of the two red channels I took that night spaced 11 minutes apart and processed exactly the same. I'm not claiming every little spec is real detail (especially the sharpening "ring" on the morning terminator), but the majority is - perhaps as much as 90%. Therefore, I could conclude many images I see recently over smoothed.

It's a matter of personal taste, really.



Sean Walker氏（2007年12月06日）

Date: Sat, 08 Dec 2007 11:50:03 +0100

From: "Paolo R. Lazzarotti" <paolo@lazzarotti-optics.com>

Subject: Re: Mars 12/06

Hi Sean,

This animation is interesting.

You can see there lot of small circular spots turning on and off as Christmas lights as well wide albedo markings staying on.

I'd dare to say less than the half of those circular bright spots are real.

Sean Walker氏（2007年12月06日）

From: "stsma" <stsma@tiscali.fr>

Subject: Re: [marsobservers] Re: Mars 12/06

Date: Fri, 7 Dec 2007 21:12:18 +0100

Some responses as Sean for the event seen on the equatorial area at the terminator lastly are a response which tries to fit to what it can be reported, but with consistency anyway and with honesty. But, I am always still on my research for the SO great difference between visual obs and imaging results. Especially for atmospheric events. We could speak about LRGB, RGB, XRGB or what else, this remain for me on so strange difference and so great. We have so many who reports also no NPH or nothing about atmospherics. From my opinion, imaging remains a great deal to see the back of the back of a mars feature (like nix olympica) but for atmospheric clouds and event of any kind remains on an actual gap, and since the present opposition beginning.

Naturally,the question is where is coming this gap? That is actual and a crucial question for consistency and pertinence.Are mainly photo imager also visual observers in their activities? THERE IS NO DATA ABOUT and this remain THE REFRENCE ABOUT WHAT references? Not sure considering that for planets imaging is the invitable must for the majority. Openning this debate because still pending and to MRO mars results only are the references? for atmospherics?. For the CMO MARS OAA site also. Because why? If MRO is the reference, so therefore amateur observations are USELESS for earth ground observers. Where is the research program of nowadays in that matter for consistency as the Alpo issued decades ago. We need update, and, issues of lots of documents observers doesnot mean something to me on an absolute point of view, at present, with so many points of viexs and results about which references!

Stanislas

Sean Walker氏（2007年12月06日）

Date: Fri, 07 Dec 2007 23:31:58 +0100

From: Christophe Pellier <chrispellier@tiscali.fr>

Subject: Re: [marsobservers] Re: Mars 12/06

Stanislas,

Images show different quality of reproduction of atmospheric details because most of observers are more interesting in surface features. Generally, atmospheric martian features are too faint to catch attention. So most people will process the images so as to get highly contrasted surface details, sometimes with processings like RRGB or IR-RGB, which result is to erase some 80-90 % of atmospheric data.Now about how utile are our amateur observations, it is evident that we have nothing to bring to Mars professional science (this would be different for other planets though). But, we have something to bring to amateurs themselves. Organisations like BAA, ALPO, SAF or OAA are likely to produce "amateur science" as I like to say, using amateur images and professional theories, destinated to observers.Now we are observing for us, after all ;-))

Christophe

Sean Walker氏（2007年12月06日）

Date: Sat, 08 Dec 2007 07:31:25 +0100

From: Silvia Kowollik <sjkowollik@t-online.de>

Subject: Re: [marsobservers] Re: Mars 12/06

Hi Stanislas,

with a colour webcam and 6 " Newton I never get "violet clearing" structures in 2003 and 2005. And it even was hard to get blue white clouds, because the blue chanel has a very bad noise/signal ratio...

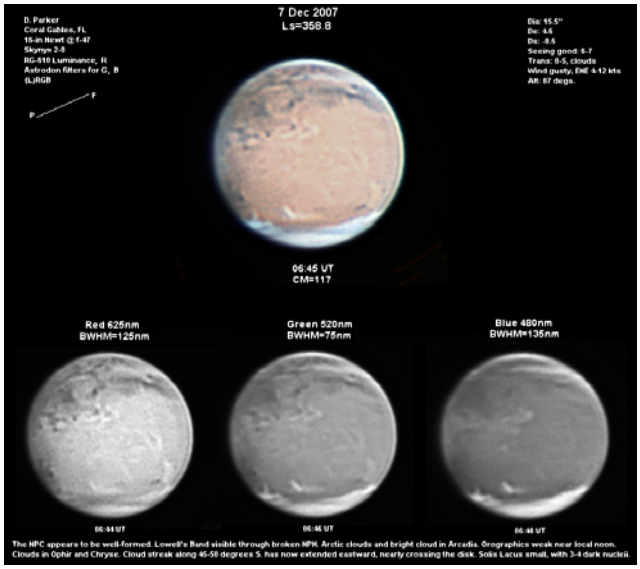
To get atmospheric structures like "violet clearing" I need a b/w camera, a violet smalbandfilter, not the "normal" blue filter of an rgb set, good seeing conditions and a lot of luck. Not every night Mars shows violet clearing.... Also a smal Mars diameter is bad for showing some atmospheric details.

Last year I changed my equippment. Now I use an b/w camera, an 8" Newton with eyepiece-projection at f=40 and an rgb filterset from Astronomic. But this season I realy have bad weather. Rainy nights, stormy nights, cloudy nights. Clear skies are seldom this winter on my location :-((...If I have clear skies, the seeing is horrible (2-4/10).

So my few rgb and ir-rgb composits dont show fine details :-((...Using a b/w camera with a deep red filter (665 nm, 715 nm, 840 nm) shows surface structures with better contrast. And the fact, that seeing is better in deep red and IR brings more sharpnes. This is the reason for using ir-rgb composits. In the moment it is the only possibility to do something...

Silvia

Donald Parker氏（2007年12月07日）

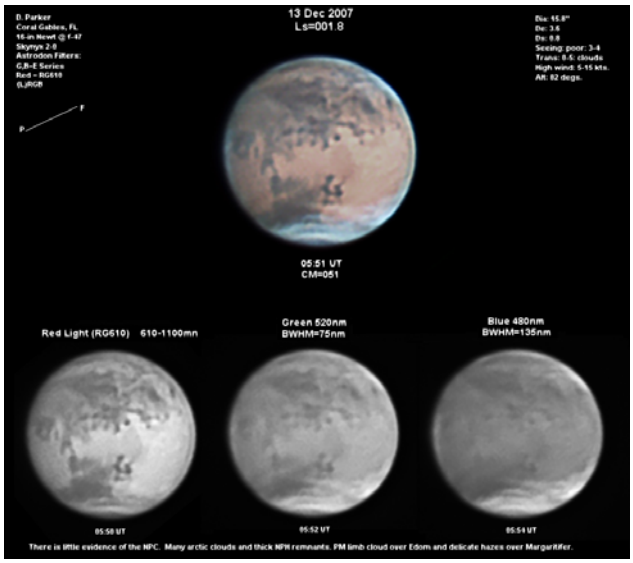


The NPC appears to be fairly well-formed. Lots of arctic clouds and NPH remnants. Note the cloud band at 45-50 degrees S. that has now extended eastward, nearly crossing the disk.

Donald Parker氏（2007年12月08日）

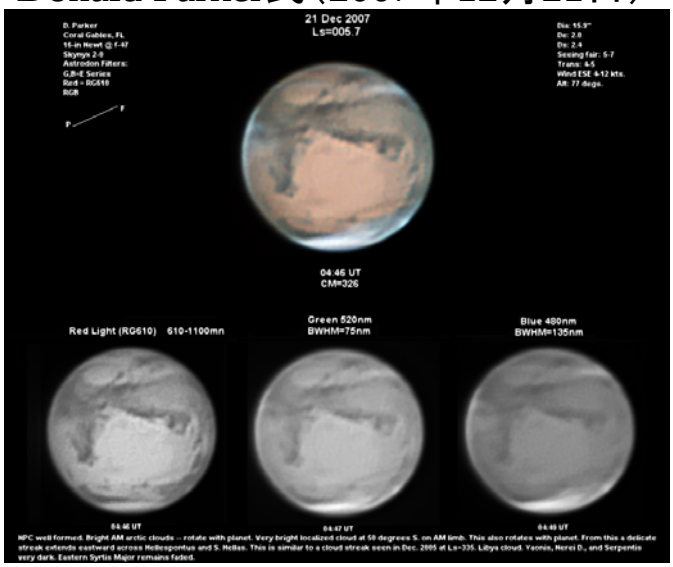
The interesting cloud streak at 45-50 degrees S. latitude is crossing the disk. Solis Lacus is small, triangular. Nectar is not visible. The NPC is visible trough fragmenting NPH.

Donald Parker氏（2007年12月13日）



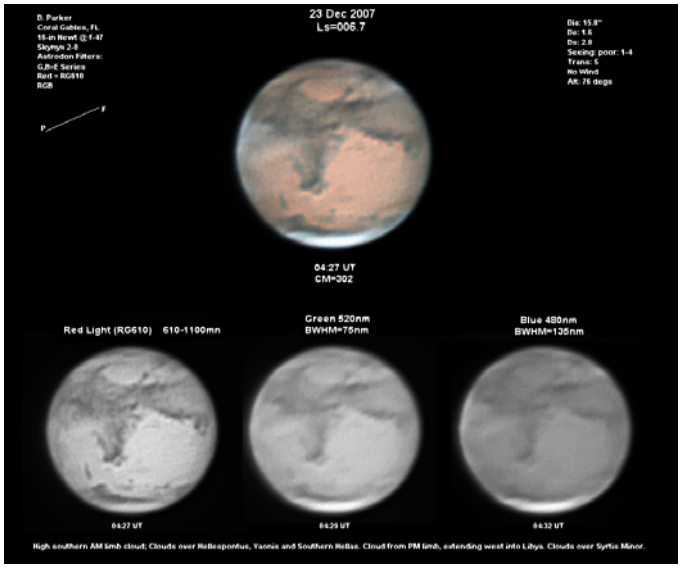
There is little evidence of the NPC. There are many arctic clouds, thick NPH remnants, a PM limb cloud over Edom and delicate hazes over Margaritifer.

Donald Parker氏（2007年12月21日）



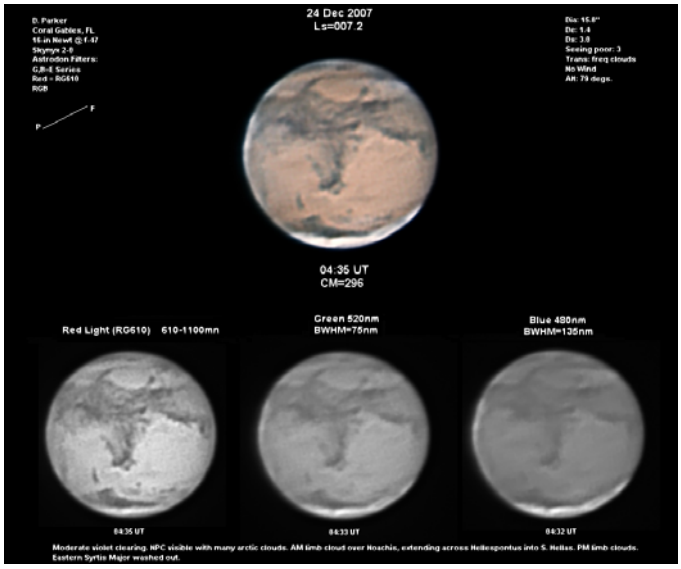
The NPC is well formed. Note the bright localized cloud around 50 degrees south on the AM limb. From this a delicate cloud steak extends eastward across the Hellespontus and southern Hellas. This is a similar cloud formation observed in Dec., 2005 at Ls=335 degrees.

Donald Parker氏（2007年12月23日）

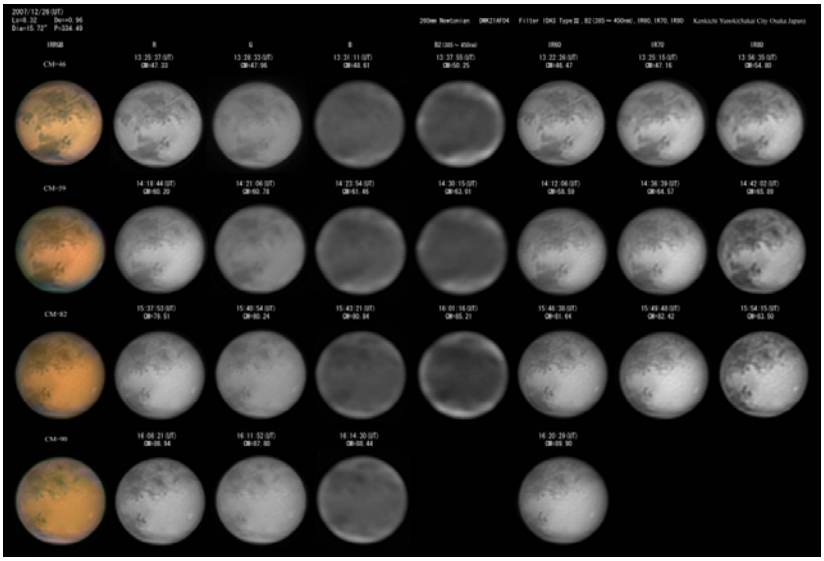


Numerous clouds seen.

Donald Parker氏（2007年12月24日）

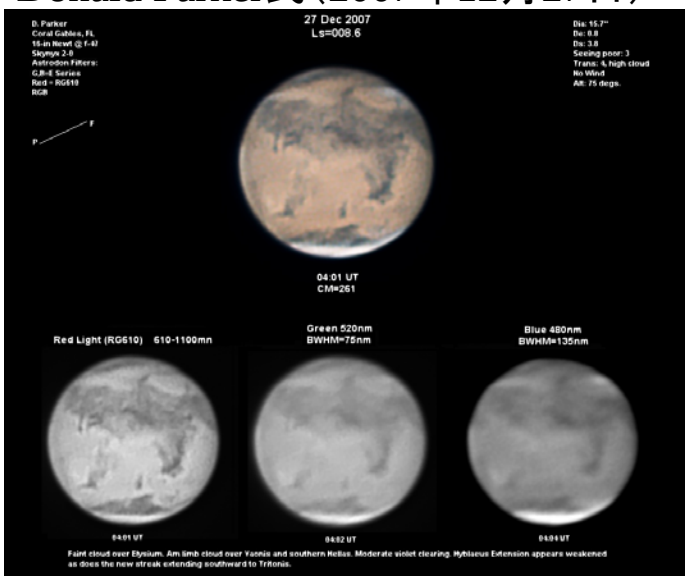


柚木健吉氏（2007年12月26日）



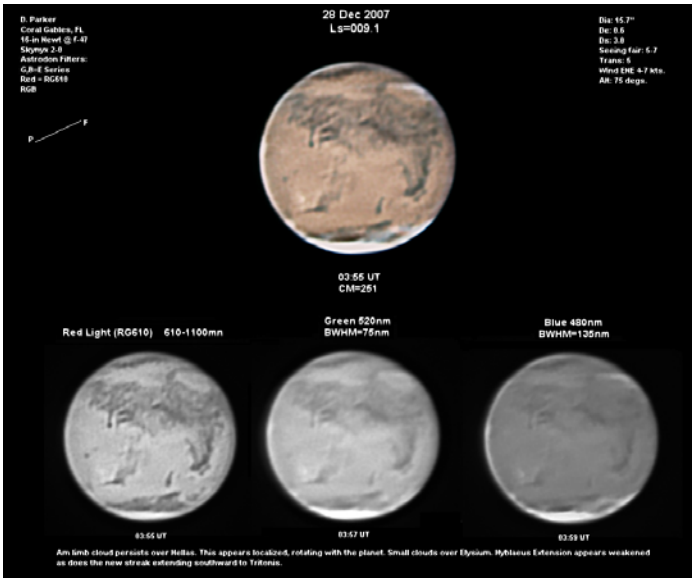
B2の画像でBlue clearing らしきものを、今シーズン初めて捉えることが出来た。

Donald Parker氏（2007年12月27日）

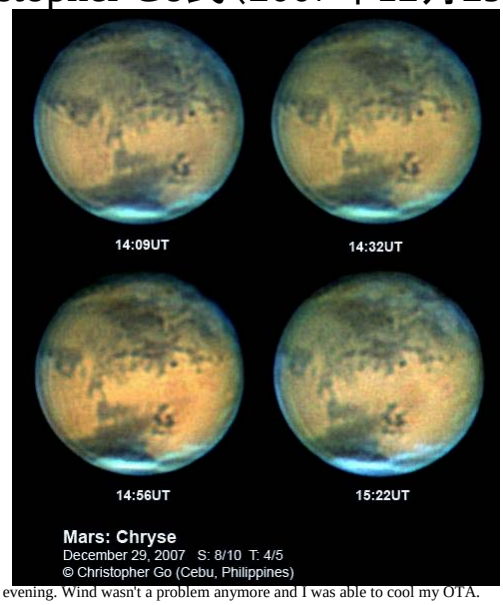


A faint Elysium cloud is visible as well as moderate violet clearing. It would be interesting to see if others note the violet clearing visually, using W-47 filters or equivalent. Hyblaeus Extension and the new Aethiopis streak appears weakened.

Donald Parker氏（2007年12月28日）

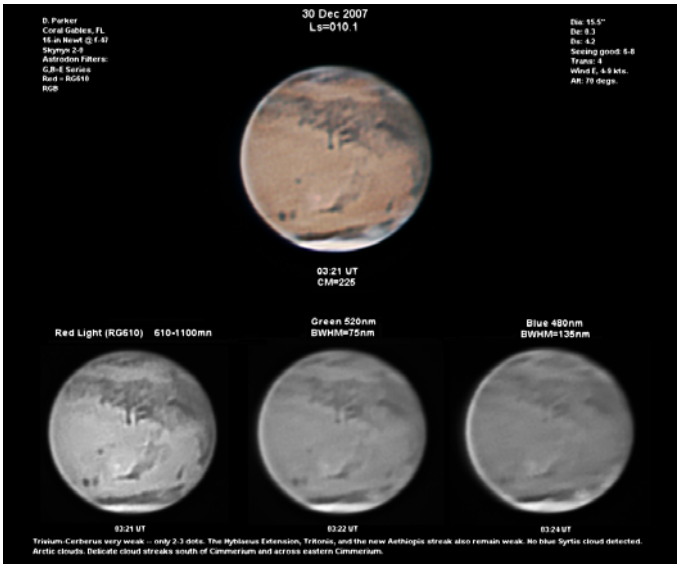


Christopher Go氏（2007年12月29日）



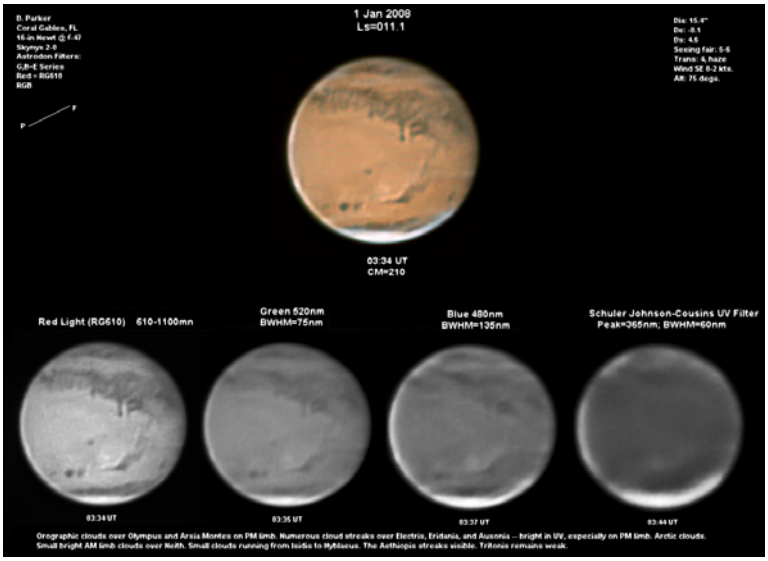
Condition was perfect this evening. Wind wasn't a problem anymore and I was able to cool my OTA.
These images feature the Chryse region of Mars. The North Polar hood seem to be breaking up. Sinus Sabaeus is visible on the right.

Donald Parker氏（2007年12月30日）



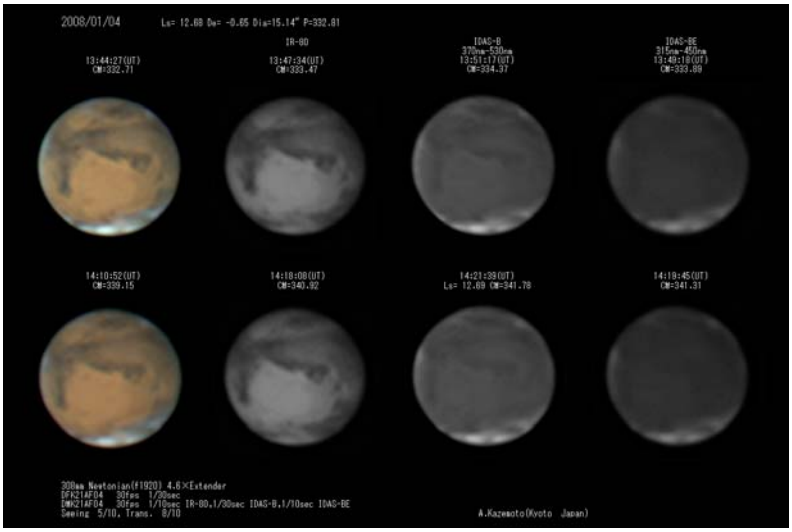
Trivium-Cerberus, Tritonis, and the Hyblaeus Extension remain very weak. Delicate cloud streaks present south of Cimmerium and across eastern Cimmerium. No blue Syrtis cloud detected.

Donald Parker氏（2008年01月01日）



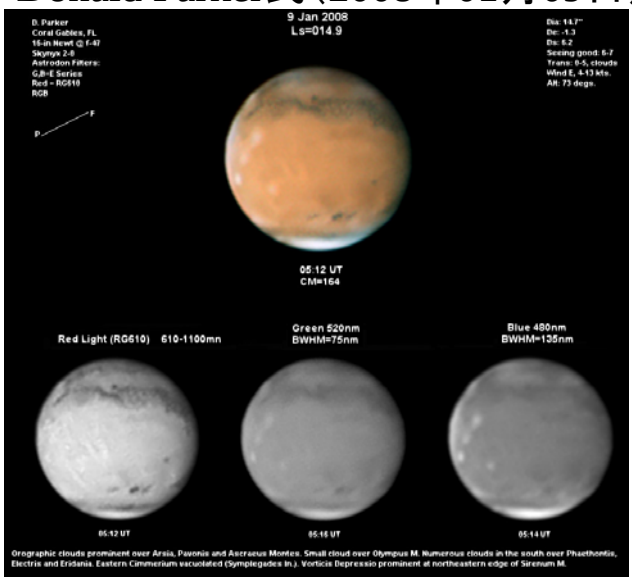
(The Mars Date was April 1.) Olympus and Arsia orographic clouds were very bright on the evening limb. Numerous cloud streaks were seen over Ausonia, Eridania, and Electris.

柚木健吉氏（2008年01月04日）



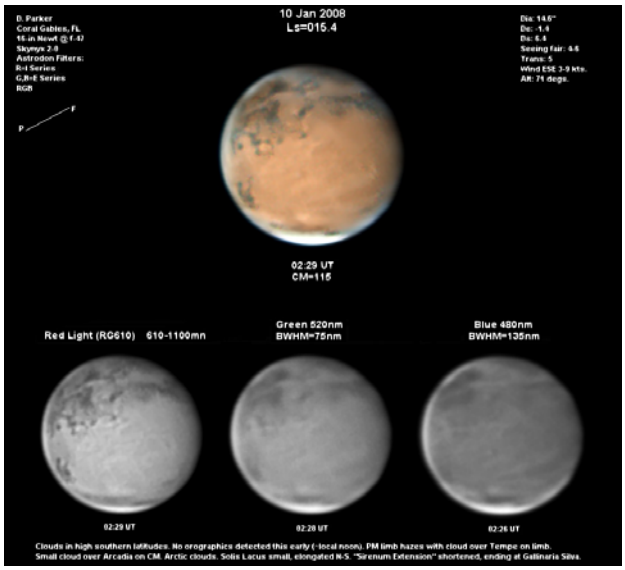
B2からIR90まで様々なフィルターで撮像してみた。普段マドロスパイプ状に見えるメリディアニからサバエウスも、シーイングが良いといくつかの模様のパーツに分解される。アキダリア付近のにかけて北極から雲がたなびいている。

Donald Parker氏（2008年01月09日）



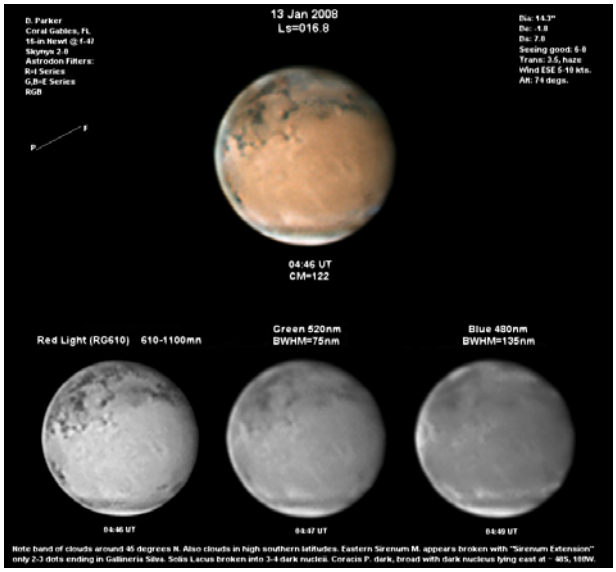
Prominent orographic clouds over the volcanoes and numerous clouds in the high southern latitudes. Note that eastern Cimmerium (Symplegades In.) appears vacuolated and does Vorticis Depressio along the northeast border of Sirenum M.

Donald Parker氏（2008年01月10日）



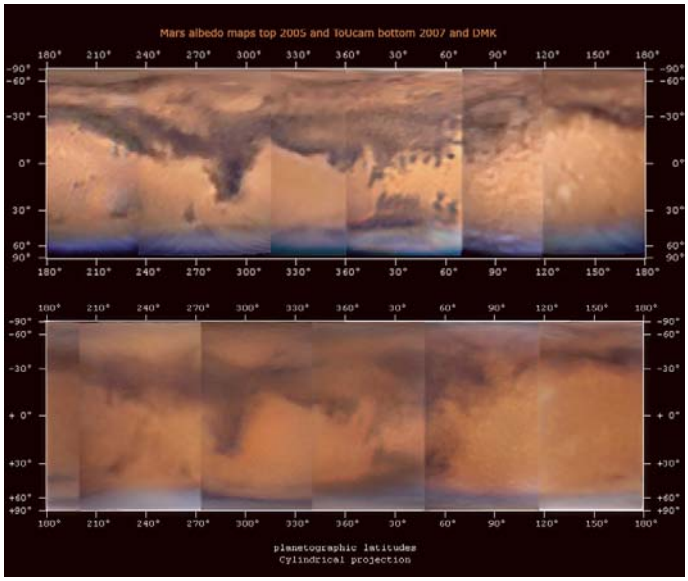
Numerous clouds and hazes. The "Sirenum Extension" has shortened, ending at Gallinaria Silva.

Donald Parker氏（2008年01月13日）



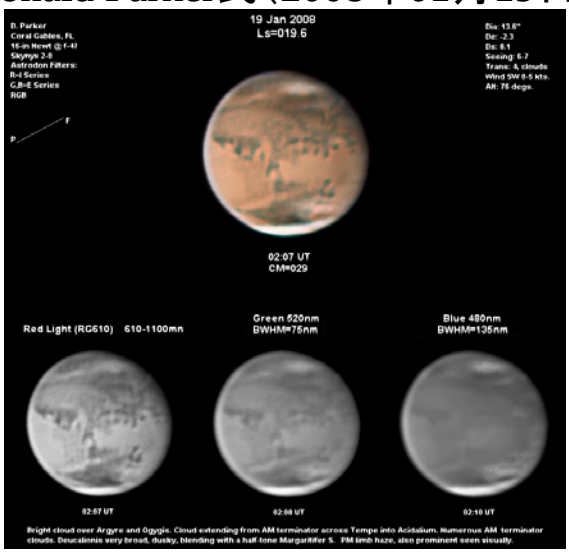
There was a band of clouds around 45 degrees north -- also clouds in the high southern latitudes. Eastern Sirenum M. appears broken with the "Sirenum Extension" being only 2-3 dots ending in Gallineria Silva. Solis Lacus appeared broken into 3-4 dark nucleii.

Jan Adelaar氏（2008年01月20日）



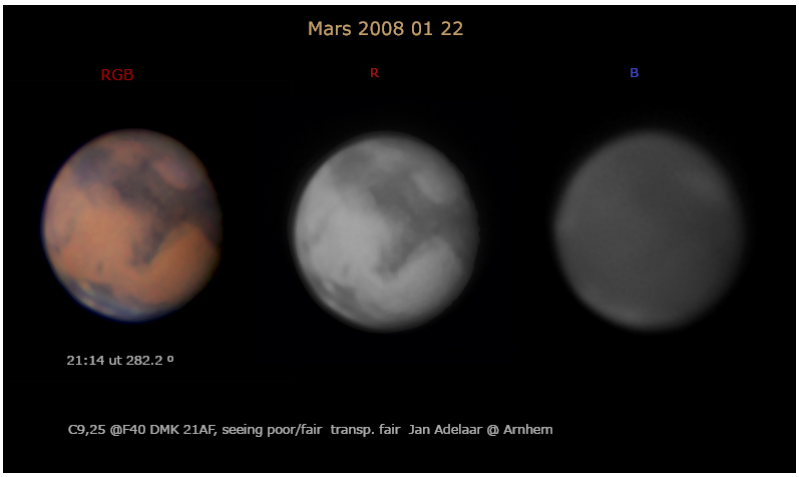
Another mail from me this time with the albedomaps from 2005 and 2007, alot to talk about the differences between those oppositions, noteworthy at first sight the dark area left above Syrtis Major in the 2005 version this was more defined....wish the resolution was the same as in 2005 despite the use of the DMK...little dissapointing this time

Donald Parker氏（2008年01月19日）



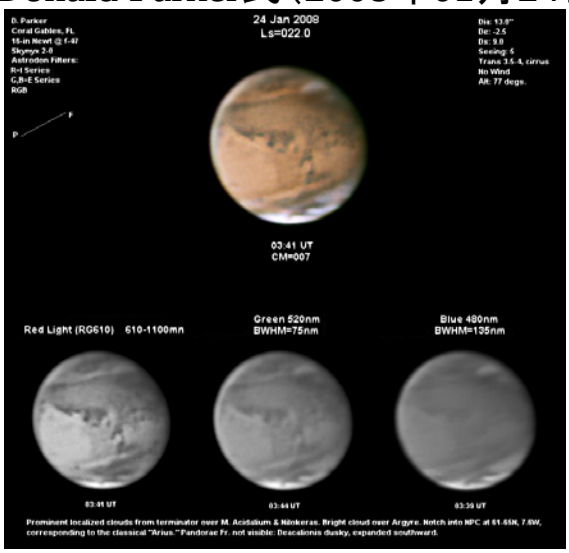
Bright cloud over Argyre-Ogygis in the South. This appears to be localized, rotating with the planet as seen on earlier images that are yet to be fully processed. It and has remained in position as seen on the 22 January images by Pete Gorczynski and Efrain Rivera as well as that taken later on 19 January by Ethan Allen. Other clouds across Tempe and on the AM terminator. PM limb haze also prominent visually with a W-47 filter.

Jan Adelaar氏（2008年01月22日）



Seeing was rather chaotic but little surprised what came out... even Zea Lacus can be seen in Hellas, the NPC seems somewhat mottled.

Donald Parker氏（2008年01月24日）



There were prominent localized clouds from terminator over M. Acidalium & Nilokeras. Bright cloud over Argyre. Notch into NPC at 61-65N, 7.6W, corresponding to the classical "Arius." Pandorae Fr. not visible: Deacalionis dusky, expanded southward.