

MARS

No. 302
25 February 2005

OBSERVATIONS

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時時間間 :2004→2005: To see the old year out and the new year in:★私は最近動かない所爲か體力の衰えを感じるが、同じ歳の唐那・派克さんは、最近、時が経つのが速いと言っている。私もときどき過去の年を数える。★然し、昔に遡る話は來年に回して(來年がCMO廿周年)、今度の忙しかった年越し前後のことに觸れておきたいと思う。CMOの新しいシリーズを出す案も年末に煮詰まったことであるし、實際の編集に当たって、#300とするか#301にするか、年末に出すか、25Janに出すか、いまとなつてはどちらでも構わないことだが、悩んだ事であった。

★One of news which sounded most impressive personally to me in 2004 was the one, provided by a discovery of an old stone epitaph in China (reported in October 2004) that unearthed an existence of a Japanese student who studied in China but died of a sudden illness in 734 AD at the age of 36. The student's name was utterly new to us and has never known for about 1300 years. At those times, the Japanese government dispatched a few hundred numbers of students to China; each time by four ships but missions being apart more than a few ten years (started in 607 - during the time of Sui Dynasty and sent occasionally until 894 when the mission was discontinued). So this person, named JING Zhen-Cheng (井眞成), was identified to have been dispatched in 717 at the age of 19 (and might be supposed to return home in 734, the year he died). The 8th dispatch in 717 is famous because it included several persons like KIBI Makibi (吉備眞備), ABÉ Nakamaro (阿倍仲麻呂), Priest Genbo (僧玄昉) who all became leaders and widely known later. Among these, ABÉ Nakamaro (698~770) could not return home (once

shipped back but wrecked) while became high ranked appointed as a governor and died there in China in the time of Emperor Xuan-zong (玄宗) of the Tang period (618~907): Xuan-zong was the emperor of the most flourish era of the Tang Dynasty; He was a patron of a lot of the pronounced artists, and at the same time infamous for his romantic episodes with YANG Guifei (楊貴妃719-756). Nakamaro has been known as an acquaintance of WANG-Wei (701~761, 王維) and LI-Bo (701~762, 李白) because these famous Chinese poets sang of Nakamaro (named 朝衡 in Chinese). What struck me was because JING Zhen-Cheng was not utterly handed down to us without no Japanese record until this stone tablet of no more than 171 Chinese characters was found. It is kept at the museum of Xian's Northwest University in China. It says he was brilliant, and honoured with a rank after the death by Emperor Xuan-zong. The name JING (井) is pronounced in Japan as I, and it is supposed now he was from the family of FUJI-I (葛井) or I-no-UE (井上).

★At the end of 2004, we were assumed suddenly very busy because we decided to re-start to publish a new series of the CMO for the coming 2005 Mars in the printed form. So I could not prepare any Christmas Card to anybody. I could just find time to write a few emails to a few persons: Exceptionally I sent the following message on 25 December to Sam WHITBY in Virginia who has long been a Martian acquaintance of me and the CMO, while I have been anxious about him since the 11 September tragedy:

●.....Dear Sam, How are you spending the Christmas time? I suppose you are going to enjoy the Eve with

your family. How are David and Tyler spending this time? I also imagine Colleen and her husband will visit you.

I am spending to edit the first of CMO (from #300!) for the 2005 Mars, and will make it as a paper version with NAKAJIMA the day after tomorrow and send it out.

The other day we finished to upload the belated CMO #278 issue in our Web. I was happy because I could put on three names Barnett, Tatum and Whitby at the same time on the list of the observers in August 2003. I hope you will kindly visit the Site.

Here it does not snow yet, although the Noto Peninsula of Lowell received the first snow on 22 December. Usually it first snows one month or more before, and so the weather looks quite extraordinary this year.

I hope you will extend my special greetings to all members of your family, and wish you to welcome a happy and successful new year.

With best wishes,

Masatsugu

In reply, Sam WHITBY sent the following message:

●.....Date: Sat, 25 Dec 2004 10:13:10 -0500
Subject: RE: Greetings

Dear Masatsugu, We wish a Merry Christmas for you and your colleagues. Where Christmas is not celebrated, let there at least be peace and good will.

We celebrated last night with Uta's parents, and we will visit my father and aunt and uncle later today. They are elderly, and we are taking lunch for all of us.

David and Tyler are well. Tyler is still a champion tree climber. David was worried about his grades, but he sailed through his exams with 2 B's and 3 A's. The scholarship is safe for another semester. Colleen and her husband are moving from Pennsylvania to New Jersey, where he will start a new job, so they are very busy right now. I hope to get to see them soon.

Our first snow, a mere dusting, came on Dec. 19. States to the west and north of us have had heavy snow already. The temperature dropped here from 60 deg. F to 12 in a couple of days. That is Virginia. On any given day now, we may have warm weather again - or a blizzard.

You can be sure that your Virginian contributors will

be honored to have any mention in your CMO. I do regularly check the CMO page on the internet.

I have been enjoying Comet Machholz almost nightly. It is an easy sight with binoculars, and it would surely be an easy object away from the lights of the city. When the Moon wanes, I will try to get out to a rural area for a better look.

I recently had a Moon party one afternoon for some of the patients at the hospital. Most of them cannot go out after dark, so I set up my reflector in the late afternoon, and we looked at and talked about our natural satellite for about an hour. It was great to be paid for having fun.

Looking forward to the 2005 apparition,

Sam

★Here the Virginian observers include John BARNETT and Randy TATUM. I liked Sam's response especially this time though I reserve to detail the reason here. ★ Strangely I did receive no more than a few Christmas Cards from abroad this season unusually. Especially I missed to receive it from Elisabeth SIEGEL who every season sends me a cordial Greeting Card with full of words (for my part, not always). The airmail arrived however quite lately on 6 January, though it was posted in mid-Dec: I met her son Gabriel in 1993, when he was just a boy, but I suppose he is now a big college student. Mira was not yet born; I supposed the Siegels celebrated her tenth birthday at around the time when Bill SHEEHAN visited Nagasaki last year. Richard McKIM has forgotten I had retired, but I remembered his daughter Michelle was born in the year of the previous Great apparition of Mars. ★NAKAJIMA and I were able to print, sort and send out CMO #300 made from sixteen pages on 26 December. Usually this work is done at a room of the Fukui City Museum of Natural History. Returning home that evening I heard the news of Tsunami at Andaman to Bengal. It turned out gradually it was extraordinarily tragic. The word of Tsunami was for example used by Lafcadio HEARN; It's perhaps because he knew the destructive tsunami which occurred in 1896 caused by an earthquake at the sea 150km off the sea-shore of the northern district of the main land facing to the Pacific Ocean (people at the shore side did not felt so

strong the quake itself). Its first wave reached the shore 35 minutes later (and the second another 8 minutes later) and killed more than 20 thousand persons. Tsunami itself has been recorded from ancient days in Japan; the first recorded was the one in 684 AD, but even now it is feared also that even if people hear the caution of a tsunami coming, several would not try to flee at once. It is said the elephants for the sightseers at the shore of the Thailand fled to the mountain side before people was aware of the Tsunami coming, though the animals don't know anything about the theory of plate-tectonics. In Japan, every time an earthquake occurs a tsunami warning is readily followed these decades. ★ The Japan Postal system promises to deliver New Year Postcards to any home if they are collected from the postbox or post office before the 20th day of December or so. I suppose NAKAJIMA does it though in his case he must prepare a few hundred numbers of postcards. In my case it is always impossible, but hitherto for many years I prepared them all by handwriting by the use of the Chinese ink. This time however I was forced to use a printer with a software because time was up. Any handwritten is kept in mind, but any printed is scarcely, and so some addresses were missed and some were misprinted, and therefore they were not delivered (some were returned). Quite sorry! ★ Just before closing the year, we heard the death of Susan SONTAG. I remember she kept in mind a salutation like "Are you all right, Susan?" of Roland BARTHES (1915~1980) of *L'Empire des signes* when they passed by on a street. I regret I missed to buy a Chinese translation of one of her books which was shown in a shopwindow of a bookstore in Taipei when I was passing by the store; I cannot read any Chinese document but I could spontaneously identify her name translated in Chinese on the book-cover at that time (in 1988).

★ The skies here in the New Year has been unusually poor. I expected a fine sky on my birthday morning, but it proved cold and cloudy. It has been hard to find any night whose following dawn is to be fine. We said the weather was unusual also in 2003, but last year it continued to be quite abnormal: Usual year no more than a few Typhoons hit the mainland, while a total of *ten Typhoons*

landed in 2004, and brought enormous damages including floods. These may be a local sign at least in the region of Japan, but we should be aware that we are to be overwhelmed with the global warming. Fortunately the Kyoto protocol for preventing global warming came into force this month (on 16 February) thanks to a new ratification of Russia; while seven years were spent fruitless after the COP3 Kyoto Meeting held in 1997. Why can we not say it is time for us to admit that the reduction of greenhouse gases is a tangible idea paid for the future over the long haul, for the sake of our descendants, for instance by changing our daily and political ways that are made dependent on oil consumption? Regrettably the world's biggest producer of CO₂ bolted from the Kyoto protocol, though it is estimated the US and the second largest producer China will produce together nearly 40% of the world's greenhouse gases in 2010 if they will do as they do at present. It is expected Tony BLAIR will persuade his allied super-rogue to change its policy on the occasion of the G8 Summit in Scotland led by Tony in coming July. ★ The 17 day of January this year was the 10th memorial day of the big earthquake which occurred at the district of Kobé in 1995 when the planet Mars was in the morning sky. Last year on 23 October we also had a big earthquake at the middle area of Niigata prefecture where they are now confronted with the unusual heavy snowfall before they repair or rebuild up their dwellings. Our land has no oil field at all, but produces a lot of earthquakes. We hope at least the climate is never abnormal.

★ 今年は「動燃」が消滅して十年だそうである。動燃の本部は東京であろうが現場は福井県は敦賀である。ここは掃き溜めのように妙な施設が多い。いまは昔の話だが、当時、事故があれば県に報告があるのは「関電」、問い合わせれば報告があるのは「原電」、問い合わせても報告がないのが「動燃」と言われたもので、いまは昔話だが、この十年当時の行政官も研究者もどういう風に過ごしたのであろうか。関電(関西電力)は餘所事と許り昨年夏に五名死亡の事故を起こしたが、相変わらず情報開示や説明責任という様なことは根附かずかと思う。

(Masatsugu MINAMI 南 政 次)

便り

Letters to the Editor

●.....Date: Tue, 25 Jan 2005 23:24:37 +0900
Subject: 火星画像

1月8日GMTに火星画像は撮っていますが、酷いものでした。眼視でも円像だけでした。

1月21日の画像も酷いものですが、添付してみます。方向は確認できませんが強引な画像処理をした処、上部に模様らしきものがあるようです。

○.....Date: Sat, 12 Feb 2005 13:33:08 +0900
Subject: new address

2月11日からメールアドレスを変更しますのでよろしく願います。

I changed my mail address from February 7th.

New address; akutsu@agate.plala.or.jp

Best wishes

阿久津 富夫 (Tomio AKUTSU 栃木 Tochigi)
akutsu@agate.plala.or.jp

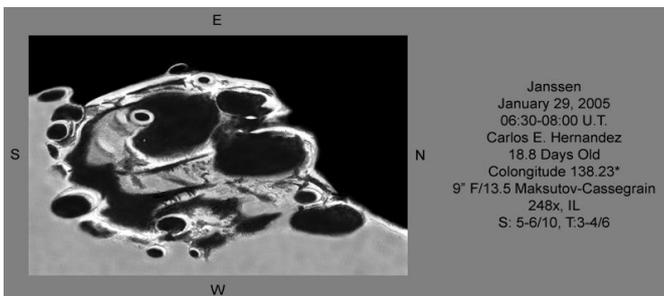
●.....Date: Tue, 25 Jan 2005 15:15:40 -0500
Subject: Aristarchus/Vallis Schroteri

I made an observation of the Aristarchus/Vallis Schroeteri (Schröter's Valley 26.0°N, 51.0°W: 99.4 miles (160 km) region of the Moon under a nearly full Moon on January 25, 2005 between 06:00 and 07:00 U.T.

Aristarchus (23.7°N, 47.4°W; 24.9 miles (40 km)) and Vallis Schroteri (26.0°N, 51.0°W: 99.4 miles (160 km) in length) appeared very bright at this time but showed detail within. Herodotus (23.2°N, 49.7°W: 21.8 miles (35 km)) nearby exhibited a nearly dark floor. A dull (5/10) sinuous rille was noted over the floor of Vallis Schroteri in some sections.

○.....Date: Sat, 29 Jan 2005 14:39:56 -0500
Subject: Janssen (January 29, 2005)

I made an observation of the walled plain Janssen (44.9°S, 41.5°E; 122 × 122 miles (196 × 196 km)) over the southern hemisphere of the Moon. The region exhibited much detail and was difficult to render. ...Rimae



Janssen is located over the floor of the plain. The bright, doughnut-shaped crater over the southeastern portion of the plain is K.

○.....Date: Tue, 1 Feb 2005 08:39:35 -0500
Subject: Double Cluster/Machholz

I made an observation of Comet Machholz (C/2004Q2) on February 1, 2005 at 00:30 U.T. while it was located approximately 6.5 degrees from the famous Double Cluster (NGC 869/884) in the constellation of Perseus. The comet's coma appeared to be elongated in both a northeast (dust tail?) and southeast (ion tail?) direction.

The brightest star closest to the comet was HIP13665 (5.56m) to the southwest. I only wish that the comet had been located closer to the cluster. What a sight that would have been! I hope that everyone else obtained a similar view of the event.

○.....Date: Fri, 11 Feb 2005 08:47:51 -0500
Subject: Jupiter Observation (February 10, 2005)

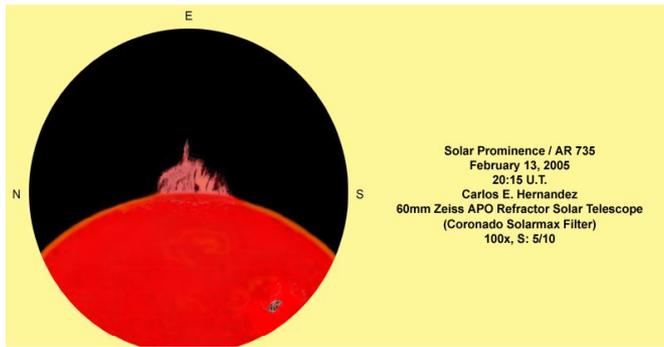
I made an observation of Jupiter on February 10, 2005 at 06:30 U.T. using my 9-inch F/13.5 Maksutov-Cassegrain under good seeing conditions (6-7/10). The planet exhibited much detail, especially the NEB and the STZ.

Notes:

South Polar Region (SPR): Appears dark to dusky (3-4/10) and mottled. South South Temperate Zone (SSTZ): Appears thin, irregular and bright (7/10). South South Temperate Belt (SSTB): Appears dusky (4/10) and irregular ("sections"). South Temperate Zone (STZ): Appears bright (7/10) and irregular ("chaotic") with several small, bright (7/10) ovals noted within it. South Temperate Belt (STB): Appears dark to dusky (3-4/10) and irregular following the CM. South Tropical Zone (STrZ): Appears bright (7/10) but no detail visible within it. South Equatorial Belt (SEB): Appears dark to dusky (3-4/10) with irregular northern and southern borders (condensations) and a thin, bright (7/10) undulating band over it's midsection. Equatorial Zone (EZ): Appears bright (7/10) with dusky to dull (4-5/10), elongated condensations within it. North Equatorial Belt (NEB): Appears dark to dusky (3-4/10) with thin, bright (7/10) rifts over it's midsection. Dark (3/10) condensations (or barges) are noted over it's northern border (NEB-N). Dark festoons are noted over the southern border (NEB-S). North Tropical Zone (NTrZ): Appears bright (7/10) but no detail is visible within it. North Temperate Belt (NTB): Appears dark to dusky (3-4/10) with an irregular ("fuzzy") southern border. North Temperate Zone (NTZ): Appears bright (7/10) and irregular in width. North Polar Region (NPR): Appears dark to dusky (3-4/10) and mottled.

○.....Date: Tue, 15 Feb 2005 04:17:34 -0500
Subject: Solar Observation (February 13, 2005)

I have made many observations of the Sun, at several wavelengths, in my lifetime but this is my first serious observation of the solar surface. This observation was



made on **February 13, 2005 at 20:15 U.T.** using a friend's (Michael Palermi) excellent 60mm Zeis Apo Solar Telescope (employing a Coronado Solarmax filter). The view was incredible in Hydrogen-alpha as two impressive prominences (one recorded here) and a large sunspot group (**AR 735**) were noted. I hope that my observation does this subject some justice. I welcome any comments that you may have on my observation. The best of luck in your own observations of the Sun, Moon, and planets.

Carlos HERNANDEZ (カルロス・ヘルナンデス FL 美)
mars@ilcs.net

●.....**Date: Wed, 26 Jan 2005 18:27:59 +0900**
Subject: Re: FW:A first analisis of the 2003 dust activi

>浅田様、このPELLIER氏のemailの中の
>>In the Bulletin of the American Astronomical Society,
>>volume 34, page 3:844 (available at ADS :
>>http://adsabs.harvard.edu/fulltext_service.html) an abstract ...
>はコピー手に入りますか？

どうやら、この論文のようです。

<http://www.aas.org/publications/baas/v34n3/dps2002/159.htm>

私はADSの使い方をよく知らないので、Yahoo のアメリカ版でBulletin of American Astronomical Society で検索し、vol 34 のDPSの集録から探しました。

○.....**Date: Sat, 29 Jan 2005 08:37:43 +0900**
Subject: Re: FW:A first analisis of the 2003 dust

Bulletin American Astronomical Society というのはアメリカ天文学会のDPS (Division of Planetary Science) Meetingの予稿集です。

○.....**Date: Thu, 17 Feb 2005 16:43:37 +0900**
Subject: 論文コピー

いつかの Wang et al. の論文ですが、*Geophysical Research Letters* に載っていましたので、コピーをしてもらいました。明日、お送りします。文献複写サービスを利用し、しかも1ページがカラーだったため、やや割高になりましたが、以前お送りいただいたコピー代を使わせていただきます。

○.....**Date: Mon, 21 Feb 2005 13:34:15 +0900**
Subject: 論文コピー

先日お送りしたWang et al. の参考文献の中の面白そうなものをコピーして、今日お送りしました。とりあえずは、九国大にある雑誌だけです。JGRは明日、九州大学へ行ってコピーをして来ます。明後日にはお送りできるかと思えます。

以上、ご連絡まで。

浅田 正 (Tadashi ASADA 宗像 Fukuoka)
asada@kiu.ac.jp

●.....**Date: Fri, 28 Jan 2005 14:09:13 EST**
Subject: Re: Request for 1997 MARS drawing

Dear Masatsugu: Thanks a lot for these. I am glad you had thought to safeguard your observational work! It was at once obvious to me from the scans that your white patch in Cydonia (or Ortygia) was atmospheric from its large size alone - and indeed from its variable shape from day to day. However, those observations in CMO had been cited in the same place as remarks about real 'outliers' in Ierne and Olympia, and so I had imagined that they were considered by you as being of the same nature. After all, Antoniadi and Dollfus both drew a white patch on the same terrain on their standard polar maps, so it seemed completely reasonable on an historical basis. However, there were three problems with this idea:

1. In 1982 the BAA had only recorded outliers in Ierne and Olympia, and only transient bright polar clouds in Cydonia or Ortygia.

2. There is no obvious outlier there on the March 30 HST polar projection map (though there might be some edge structures at a very small scale).

3. The ground-based CCD work by Parker does not show the outlier at different times in March or April, suggesting it was only occasionally visible. It seems therefore to have been another example of polar cloud (but quite an early one), such as those routinely imaged and sketched in May, June and July 1997. In fact I do have other slightly less precise records of the event portrayed in your drawings which demonstrate a variation in longitude over a scale of several days, in accordance with the HST's finding (July 1997) that the polar clouds drifted in longitude. I will write more about this when the

paper has been refereed.

I recall having similar problems with the 1982 data from the BAA, and concluding that the bright patches reported at that apparition in Ortygia or Cydonia were indeed atmospheric on account of their size and rather variable longitude.

It is good to have the 'problem' cleared up!

You asked about Chasma Boreale. We had much the same views as reported in the CMO. In 1995 there was a notch near long. 330 deg. corresponding to classic Rima Tenuis, and I agreed with your interpretation that the view sometimes had of the rift crossing the cap was an illusion based upon the Chasma Boreale penetrating the cap from the other side and curving round to meet or appear to meet the 330° rift. This is very clear in some of the Parker CCD images around $\omega = 330^\circ$ (eg March 30, 1997). But in 1997 the notch near 330° was not reported. Nor was the annular dark rift in the NPC, except in traces in the HST images. The surprising darkness of that feature in 1995 is most unusual, and I did try to trace its history back.....

I will gladly send you the texts of the 1995 and 1997 reports as attachments if you would care to read them.

I have now started on the 1999 report. I have yet to measure any drawings for NPC latitude, so any measures and drawings you care to send will be most useful. I will be happy to publish some of the finished drawings.

With regards

○.....**Date: Saturday, Feb 05, 2005 23:21 +0000**
To: <chrisspellier@tiscali.fr>; <sheehan41@charter.net>
Cc: <VZV03210@nifty.ne.jp>
Subject: Re: Comments on Mars and global warming

Dear All, I have not seen this paper, so can make no comment other than to add (perhaps of some relevance) that the NASA press releases from the HST referring to a cooler martian climate in 1995 because we can see the equatorial band clouds is nonsense! These press releases are not written by the scientists themselves, or at least not directly. I recall the late Leonard Martin being displeased by such statements getting into the press. The ECB phenomena can be traced back a century or more. For the benefit of Chris, a complete narrative of dust storms is available in my 1999 book (BAA Memoirs volume 44). There is no doubt that martian dust activity

varies on a timescale of decades, but beyond that there is no clear pattern, perhaps because our database is still too short. The attempts to link martian to terrestrial climate changes go back a century or so. At least two astronomers claimed a link, but all their data were based upon visual drawings of the polar caps, and rather small numbers of such measurements.

I personally do not believe in long term changes in WHITE cloud activity except to say that during a large regional dust event (e.g., 1997 November, over Noachis etc., observed by Mars Global Surveyor), or during a larger event still, all the crystal clouds disappear due to atmospheric warming, for a terrestrial month or longer. Thus an historical opposition period sampled following a large (but unmonitored) dust storm would appear to show a lower level of white clouds.

Do send me the paper, somebody!

Good wishes,

Richard MckIM (理查・麥肯 Peterborough 英)

Director, BAA Mars Section

RMckim5374@aol.com

●.....**Date: Sun, 30 Jan 2005 15:58:05 +0900**
Subject: 今年の火星

せっかく沢山のメールを頂きながら、返事が遅れてしまいました。申し訳ありません。

観測日は1月2日 $\omega = 200^\circ$ W、1月9日 $\omega = 138^\circ$ W、1月15日 $\omega = 073^\circ$ W、1月29日 $\omega = 294^\circ$ Wです。

良像を集めて処理をしていますが、何回処理しても、表面模様が出てきません。今だに高度が上がらず、やっと6時30分ごろから観測可能になってきますので、仕事の都合上、土曜日か日曜日でない撮像ができません。おまけに隣の屋根からすぐの位置ですので、Seeingの悪い事。

もう少し高度が上がれば、何とかなるのではと期待しています。画像はもう少しまともな像が撮れてからにします。

○.....**Date: Sun, 13 Feb 2005 21:00:23 +0900**
Subject: Mo12Feb05

昨日は雲は多かったですが晴れていて、Seeingは最初悪かったのですが次第に安定してきましたので、撮像してみました。やっと少しまともな像が撮れたような気がしますので、ご報告致します。

眼視では表面模様はほとんど見られませんでした
が、像としては今までよりは安定していました。

森田 行雄 (Yukio MORITA 廿日市 Hiroshima)

mo7797@ybb.ne.jp

●.....Date: Tue, 01 Feb 2005 22:21:30 +0000

Subject: Re: Happy Birthday

Dear Masatsugu, Many thanks for your kind note. I had a very nice birthday, but I just recovered from pneumonia and so am still a bit weak. Our weather has been pleasant, but the seeing has been poor and I haven't observed Mars yet. I hope you get some good observations and hope your weather improves!

All the best,

Don PARKER (唐那・派克 Miami, FL 美)

park3232@bellsouth.net

●.....Date: Fri, 04 Feb 2005 11:17:24 +0900

Subject: 2005年度の観望会

おはようございます。2005年の天体観望会(夜の部)の予定を組みたいのですが、お願いいたします。一応、別表のように想定してみました(時間帯は確認しておりません)。問題点は1.10月の予定回数がちょっと多い?なので、2回におさえる。
2. 天文台外で実施する観望会について、昨年と同じ岡保小学校(あるいは公民館)を考えていますが、開催月をどうしましょう。やはり、天文台では見づらい星雲や星団、それに星座をみるとなると、やはり11月、12月になるのでしょうか?
3. 7月分について、“七夕の星”は、時間的に遅くにしか見ることはできないので、7月はお休みにするか、別のテーマにするか、といったところです。

○.....Date: Fri, 04 Feb 2005 15:47:27 +0900

Subject: 英語版行事案内

天体観望会予定について、英語版でもお願いできませんでしょうか。タイトルのほか、見どころはどこかなどの紹介(三行くらいだと、50語前後でしょうか)があるとよいと思います。といいま
すのは、一般観望会であれば、福井在住の外国人であっても参加可能かと思えます(中島先生・南さんが指導につくということでもありますし...)
・それで、英語版はホームページに掲載するほか、「国際交流会館」にチラシとしておいてもらおう

と考えております。お忙しいとは存じますが、英語版(これは後ほどでもよいと思います)も含めてよろしく願いいたします。

○.....Date: Wed, 23 Feb 2005 19:49:14 +0900

Subject: 観望会について(再)

来年度の観望会について、中島先生からもアドバイスを受けました。時間中に二つの天体を観望させるのは、五月雨式さみだれに来館する人を相手には、時間的に無理がある、複数のテーマを広報すると、来る人は同時に両方とも見えることを期待するので、絞って広報するとよいのでは、ということで以下のように考えてみました。.....

常間地さんのコメントも考慮すると、例えば、岡保での観望会を7月7日に行い、(7月15日はナシ)11月は11日に天文台で火星の観望会を実施(11月4日はナシ)という案も考えられます。今ならまだ変更は十分可能です。しかし、岡保での観望会は、できれば夏休みに入ってすぐか、直前くらいのほうが盛り上がりやすいかなあとも思います。

それから、岡保公民館の駐車場はアスファルトで、雨直後でも対応可能かと思いましたが、残念なことに、ここは県道のすぐ脇で、しかもその県道は通勤時間帯にはかなりの交通量で、車のライトが邪魔になりそうです。まだ岡保小学校には正式には依頼していないので、場所の変更も可能です。昨年は河合小学校も候補にしました。ここは田んぼの中で視界はよいはずですが、最近周囲の人工の明かりがかなり強いと聞きました。

以上のような状況ですが、再度アドバイスいただければ幸いです。.....

足羽山の道路には雪は全くありませんので。

梅田 美由紀 (Miyuki UMEDA)

福井市自然史博物館 Fukui)

miyuki-u@bb.cocone.jp

http://www.nature.museum.city.fukui.fukui.jp

●.....Date: Sat, 5 Feb 2005 21:50:57 +0100

To: <sheehan41@charter.net>

Cc: <VZV03210@nifty.ne.jp>, <RMckim5374@aol.com>

Subject: Comments on Mars and global warming

Dear Bill, here are finally a few remarks on the unpublished paper "Has global warming been occurring on Mars". Needless to say I have really enjoyed reading it - it completely falls into my astro interests. Studying planetary atmospheres is certainly a hot topic of our times,

since we're concerned about a possible warming of our own planet !

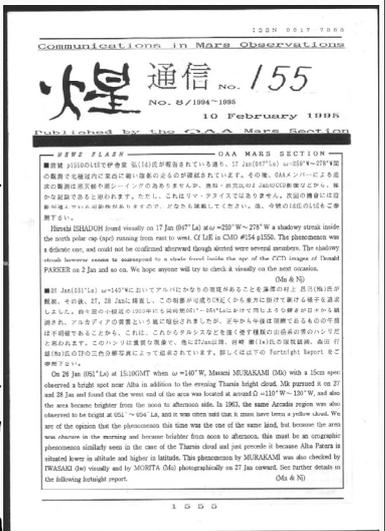
1) My first question is about reliability of the dust storms data. Data is incomplete - but as the article says the relative absence of global storms in the first half of last century can be regarded as true. Nonetheless I have thought about a way to increase the coverage by making

comparisons of albedo changes. I don't know if you, Richard or others have already done it. During aphelic oppositions a big dust event occurring during martian spring or southern summer is likely to be missed, but, as it will lead to profound albedo changes it signature is going to be seen during the next opposition. Thus one could also use albedo analysis to detect unobserved dust

TEN YEARS AGO (114)

---CMO #155 (10 Feb 1995) & #156 (25 Feb 1995)---

1995年二月も二號出ている。10日號のCMO#155の巻頭ではNEWSFLASHが二つあり、Id氏が17Jan($\lambda=047^\circ\text{Ls}$) $\omega=259^\circ\text{W}\sim 278^\circ\text{W}$ で北極雲内に細い陰翳を観測していることDPK氏の観測からも確実であること、従って追求を、ということと、Mk氏が26Jan($\lambda=051^\circ\text{Ls}$) $\omega=140^\circ\text{W}$ でアルバに可成りの明斑を検出し、27Jan、28Janと追い、その後Iw氏、Mo氏によって追求されていること、1963年にも似たような観測があること、タルシス山岳雲の走りと関係するであろうから、よく追求することなどの注意がある。CMOReportは一月後半($\lambda=046^\circ\text{Ls}\sim 052^\circ\text{Ls}$)部分だが八頁の長編である。AHt氏、ESgさん、JWr氏、GTc氏、SWb氏を含めて、十六名の観測者が報告している。Iw氏が38枚、Mnが37、Mk氏が35枚などだが、今年(2005年)と違って天候がいいようで、前半は裏、後半は表日本が活躍している。TPではMo氏、VideoではHg氏が好成績、全體プロポンティスIやアエテリア暗斑を皆さん追っている。19Janには沖縄のHg氏が餘程シーイングがよかったようで、アエテリアの邊りの描寫は優れているとある。20JanにはMk氏がプロポンティスIの分離に成功しているようである。26Jan以降では上述のようにアルカディアの明斑の追求がMk中心に行われ、その詳細が載っている。28Jan $\omega=120^\circ\text{W}$ のMk氏のスケッチが引用されている。LtEでは先のESgさんに続いて、CERETTA氏やAHt氏、SWb氏の神戸震災に対する見舞いが来ている。長谷川一郎氏、松本達二郎氏からは被害についての報告のお見舞いに対するお返事となっている。



25日號のCMO#156のCMOReportは十頁で二月前半($\lambda=053^\circ\text{Ls}\sim 059^\circ\text{Ls}$)の観測を扱っているがこの間欠日が多かった由である。視直径は11Febで13.85"で最大となった。二月の冬の割に好い条件の日があったようで、2FebにはIw氏は像の微動だにしないシーイングに出あっている(過去にない経験)。ニロケラスの双葉型邊り。7FebにはIs氏がB390でテンペガマレ・アキダリウムより暗い像を出したのが興味深い。Mk氏は7Febあたりから、クリュセをかなり詳しく追っている。Mk氏はこの頃には方法が確立してきたのであろう。10.11,12Febはオールナイト合同集中観測日であった。大まかな観測報告がある。天候の具合は芳しい方ではなく、三日連続で観測できたのはIwだけだったようである。Id氏が低調であった。多分天候の所為であろう。然し、10,11Janはそれぞれ可成りの観測をコナして比較がされている。11Febが最接近日、最高視直径13.9"。12Febが衝だから、典型的な小接近であった。13Feb以降ではシヌス・サバエウスからマレ・セルペンティスが好く捉えられている。14FebにはHk氏も7/10のシーイングを得ている。三月にはハーフナイトをするという予告がある。LtEではMk氏はいろいろ活躍している。編集部に入る前である。「一点点・一天天」ではフラマリオン(Camille FLAMMARION 1842-1925)が1868年に気球に乗った話が紹介された。Ns氏が華燭の宴を挙げるとあるから、早十年ということになりますな。

南 政 次 (Mn)

storms.

2) About isolated events such as the big dust storms of 1909 and 1924, we should not "over-interpret" them ; you wrote that "they may suggest that a warming trend was underway earlier". You also wrote that may have been anomalous, but there are always meteorological events that don't follow the trend of their epoch, without being proofs that the trend itself is changing. For example during the Little ice age in Europe, hot summers were still possible from time to time. I think that the trend itself is more important to consider, and we could argue that the martian climate was really cooler during the first half of the 20th century.

3) Exhogen causes of dust storms. One of my idea would to be separate "endogenic" and "exogenic" storms (just an idea). Endogenic are triggered only by climate conditions in the southern hemisphere of Mars (pressure, winds, temperatures...). Exogenic would be triggered by solar X-flares (following Masatsugu's idea) or by northern dust fronts such as july 2003. The problem here would be that if these categories are acceptable, then the "exogenic" storms would hardly be warning signs of a climate warming, as they would look more "accidentals". Perhaps we can moderate the dichotomy by saying that an "exogenic" storm can only become global if local climate conditions on Mars are favorables, i.e. "warm enough" (this looks to be a quite right description of the 2001 event !).

4) Now about white clouds. This part of the article looks more puzzling for me as right now I don't understand how a warmer martian atmosphere could create more water-ice clouds. I understand that in this case more water is sublimated into the atmosphere on one hand, but on the other, the higher temperature is likely to prevent it from condensating... When Mars encounters a dusty, warmer time, white clouds are very rare. In august 2003 very few of them were present for example. Jeff Beish's work seems to show that the abundance of white clouds has been higher after 1985 ; but this is typically a period when no big dust storms have taken place, and the steady shape of the dark markings until 2001 is a good proof of that. Mars's climate may have been cooler dur-

ing the 80's and the 90's ? So here are my few thoughts on this highly interesting topic. 2005 will deserve a close watch... In march and april, the french planetologist Thérèse Encrenaz is going to give a few courses on planetary atmospheres, and maybe I'll be able to ask her what does she think. Best wishes,

○ · · · · · **Date: Sun, 6 Feb 2005 16:45:15 +0100**
Subject: Saturn, january 26th and february 5th

Hi all, here are some fair images of Saturn. Not much to say. The night of february 5th has been superb at the south of Paris ; but I was far at the east and seeing was only fair, unfortunately !

○ · · · · · **Date: Wed, 9 Feb 2005 21:47:38 +0100**
Subject: Saturn, february 6th 2005

Hi all, a few images under very good seeing. Some spots are detected, one dark in IR, one bright in R. If you take a closer look at the R images, you may seen two very faint white spots near -45° also. Data for the color

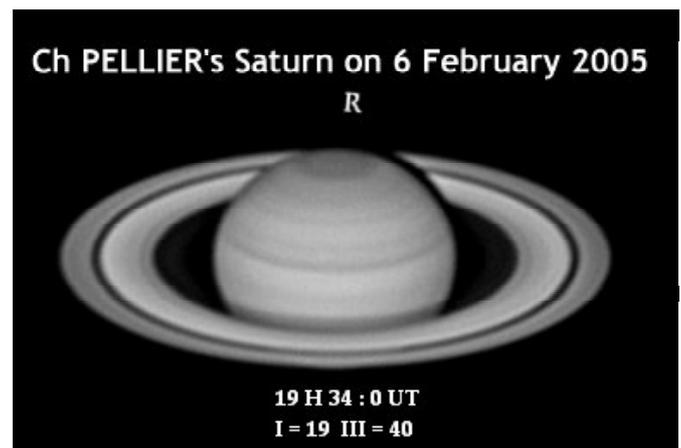


image has been originally taken with a powermate 4× (F/46) but this proves to be too much for Saturn and contrast is quite decreased, as you can see in the comparison with F/40 in red light, so it has been shrunk 92%
Regards

○ · · · · · **Date: Thu, 10 Feb 2005 22:37:20 +0100**
Subject: Re: Saturn, february 6th 2005

Hi Paolo, it would be interesting to note if your images confirm also the two fainter white spots I see on my R images. But they wouldn't be visible in integrated light maybe...

○ · · · · · **Date: Sat, 12 Feb 2005 18:40:17 +0100**
Subject: Saturn, february 8th 2005

Hello, Some images with no spots detected. Regards

Christophe PELLIER (クルストフ・ペリエ nr Paris 法)
chrisspellier@tiscali.fr

●.....Date: Sat, 5 Feb 2005 17:44:33 -0600
 Subject: Mars -- Earth climate -- and so on

Dear Richard, The paper is only the old one that I attempted to co-author with Beish and Parker in 2001. Christophe had wanted to see it, so I sent it to him. But I no longer have any faith in the results.

Here's also my response to his comments (I will forward them also to Masatsugu).

I have been recovering from viral pneumonia, which laid me low in December, and I have still not entirely returned to form -- to the contrary, I have had a vexsome relapse this past week. Nevertheless, I am formulating plans to attack Mars this year -- I will be using the Lick refractor (possibly in a coordinated effort involving Lowell Observatory) in September and possibly early October, and just spoke last week to the acquiring editor at U of Arizona Press about doing a revised edition of "The Planet Mars" -- a great deal has happened since 1996!

Hope you are well. Probably buried in Section reports.

Dear Christophe, Your comments are very astute, and much appreciated. That paper was very preliminary. I think the main problem with attempting to apply Martian meteorological observations to terrestrial weather is that the baseline of observations is so short, and the circumstances affecting how the Sun or other influences determine dust storm activity, clouds, etc. interact with very complicated local conditions such as slopes, ice interfaces, high albedo and low albedo regions. It was a rather heroic attempt to apply such knowledge as existed at the time it was written.

Probably photometric observations of the Jovian satellites, Titan, and Uranus and Neptune are more promising, and they have been carried out by Wes Lockwood, Brian Skiff, and their colleagues at Lowell Observatory for a number of years -- I was just at Lowell in December, and discussed this project; Brian Skiff told me they were finding methodological problems in Sallie Baliunas's much vaunted (and well-oiled -- humph!) research that has been cited as evidence that human emissions have not produced the global warming of recent decades but changes in the solar constant, and that their own research

has failed to show any significant changes based on measures of these outer-solar system bodies.

One might suppose, nevertheless, that monitoring of Mars's dust storm and cloud activity as is now possible would lead to a more complete picture -- and presumably show whether or not Martian weather patterns appear to be in synch or decoupled from those of Earth. The major question regarding the historical record is, in my view, whether the apparent change in frequency of global dust storms is an effect of selective observation or whether dust storm activity really was less frequent in the late 19th and first half of the 20th centuries. I strongly suspect that there has been a change. Whether the increased dust storm activity that began in 1956 and continued during the early 1970s and then in the 1990s and 2001 will persist will make up one of the most interesting questions of the coming oppositions.

These are a few thoughts -- I will look more carefully at your interesting comments when I have more time.

All the best, yours,

○.....Date: Mon, 7 Feb 2005 17:25:56 -0600
 Subject: Re: RE:Re: Asking for permission

Dear Masatsugu, I hope you are well. I wanted to acknowledge the receipt of CMO No. 301 which contained your excellent "Lowell's Mars in 1894," with a useful prospectus of those aspects in which the 1894 observations will be reincarnated this coming year. Your essay is remarkably insightful -- I can only say that even though I had believed myself well-informed on this subject, I learned much that was new.

I will be looking forward to our chance to study Mars together with the Lick refractor later this year but as you point out, the period of useful observations will require a much earlier period of close observations and I may attempt to make a previous visit to the observatory for the purpose of extending our coverage of the planet. We shall be most active, of course, during September 2005 when the conditions will closely agree with the observations Barnard made with the large telescope, in which he had excellent views of the Tharsis region, Solis Lacus, etc. Have you any idea what dates you wish particularly to observe the planet -- I have started working on the small telescopes research proposal, and once we have the

dates defined I can begin to coordinate our travel plans. Probably I shall arrive ahead of you and make sure you are met and escorted from the airport in either San Francisco or San Jose. We will make arrangements to stay on Mt. Hamilton I expect.

I have also been hoping to coordinate our work with the Lowell Observatory's projects and may, if we can arrange it, have you visit Flagstaff. It would be supremely memorable for you to visit Mars Hill. Eventually I am hoping the Percival Lowell Society and the Mars Section of the OAA may have a meeting there. Perhaps we can do this in 2008, which will be the anniversary of the appearance of Lowell's book "*Mars as the Abode of Life*".

Finally -- one last matter -- I have agreed with University of Arizona Press to reissue "*The Planet Mars*", and I wonder if you would be interested in collaborating on this revision. Your insights are superb and the book would then be more broad-based than it could be with my limited perspective. Do consider the possibility -- I should be much honored. Of course, it must necessarily appear in English, but we may be able to include more about Percival Lowell's visits to Japan (especially the Noto visit, whose retracing last year will always remain vividly in my memory) and the Japanese observers and their important contributions to the history of Mars which have never been published in the wider Mars literature, apart from some small mention of Saheki. It would be grand to have our names together on the title page.

I hope you and yours are all well and am looking forward greatly to your visit. Ever,

○ · · · · · **Date: Sun, 20 Feb 2005 16:55:28 -0600**
Subject: cc:letter to christophe pellier

Dear Christophe, Since we corresponded, I have become somewhat interested again in the Mars global warming question, as it pertains to such things as the dust storm frequency (and epoch), Jeff Beish's observations of white clouds (inspired by Chick Capen) and polar-cap regression data (such as were summarized in the preliminary paper I sent you).

After I wrote that draft, drawing on material sent by Beish and Don Parker, I asked McKim, who is the expert on all this, to consider these questions in light of his magnificent dust storm catalog. I wanted to see whether

-- assuming that Mars's razor-thin atmosphere is very "brittle" and easily disturbed by changes in solar irradiation -- there had been any warming trends, such as date of earliest onset of storms, frequency, etc. (In the back of my mind, of course, was the fact -- noted by Zurek, Martin and others -- that there had been no planet-encircling or global storms during the 19th century -- and that a new era had apparently been inaugurated with the storms in 1956 and especially the 1970s and again in 2001, which might be interpreted, on the face of it, as being due to a warming trend roughly corresponding to that on Earth.) I must say that I was a bit skeptical of what was being asserted by Beish and Parker, · · · · · But I thought I should keep an open mind; especially given the fact that Sallie Baliunas and her colleagues were claiming that they had found solar variation that seemed to correlate with terrestrial climate change and that impressed a number of people I respected (including Bill Hartmann).

In the event, McKim was unable to find any statistical correlation in the epochs of dust storm development that would support a warming trend. I think Beish's observations of white clouds are somewhat controversial -- they do not agree either with French or Japanese observations; and unfortunately, the polar cap regression data are not yet advanced enough to be relied upon. The HST observation points would have made for an excellent test of various predictions but there are too few of them to lead for trends of statistical significance to emerge.

At this stage, I would have to say that I expect the "null hypothesis" to prevail -- that secular Martian climatic change, though it no doubt occurs, will be shown to sharply decouple from that of the Earth, where it now seems certain beyond question of any rational being (of which there are frightfully few in American politics) that human interference with the climate far swamps out other possible causes of variation. We might well publish a re-analysis of all the data from the perspective of this more critical perspective. The paper that I attempted to write with Beish and Parker was never published -- and deservedly not. It was strictly preliminary; heroic but premature.

Meanwhile, I have been working through Patrick

Moore's translation of Flammarion's book, in the hope (burning rather dimly at the moment) that it will be published eventually. I have identified some drawings that I would like to publish from the originals, if they are available. They are: his figure 10, which shows Cassini's drawings of Mars from Mars 1666.

Fig. 11. *Cassini and Campani drawings.*

Fig. 18. *Flammarion's drawing of Mars in 1884.*

Fig. 31. *Flammarion's Carte Générale de la Planète Mars.*

Fig. 59. *Croquis de Mars, par Flaugergues.*

Having immersed myself in Flammarion's work, I have formed a strong desire eventually to visit Juvisy for myself -- perhaps we can go together whenever I shall have managed to get back to France again.

All the best, yours,

Bill SHEEHAN (ウィリアム・シーハン MN 美)

sheehan41@charter.net

●.....Date: *Thu, 10 Feb 2005 10:53:57 +0100*

Subject: *Re: Saturn, february 6th 2005*

Hi Chris, A very good set of images from you!

I also imaged on the same night, I can faintly see a dark and a white spot across the CM in my integral light image. I attach a preliminary version, the namefile contains datas. I've other images from that night, through the animation they should be easy to notice...

Paolo LAZZAROTTI (パオロ・ラッサロツティ Toscana 義)

●.....Date: *Wed, 16 Feb 2005 22:31:29 +1100*

Subject: *Mars 13th Feb UT ...hello again!*

Dear Masatsugu, Hello again! I hope that you and all at the CMO are well. For some months now I have been without internet access, and have only recently signed with a new ISP (please note my new e-mail address).

On the 13th Feb UT I obtained my first Mars image for 2005 and so take this opportunity to send it to you.

The image is not very good, but I hope for better as the season progresses with a larger (and higher) Mars.

very best regards

Maurice VALIMBERTI (モリス・ヴァリムベール

Melbourne 豪)

maurice@wraith2.net

●.....Date: *Sun, 20 Feb 2005 20:40:38 -0500*

Subject: *Saturn - Feb 11*

Hello everyone..., Great images of Saturn arriving on a daily basis...great work to everyone and thanks for sharing.

I have attached a set of images from last week - 11 February 2005. The Luminance (monochrome) images were taken through the Schuler IR rejection filter, one each in medium and hi-res mode of the ATK-1HS camera. A RGB medium and hi-res image taken with my ToUcam is also included. The 30cm Meade SCT was used, as described below. Image capture with K3CCD Tools, processed with Resgistax 2.



The ATiK camera was working at $f/26.5$ and the ToUcam was at $f/23$. The ToUcam was operating with a $2\times$ barlow though the flip mirror, and the ATiK camera was set up to image with a $2\times$ teleconverter with the light passing straight through the flip mirror. I need to work on getting an equal f -ratio with the two cameras. This setup will allow a quick colour image clip with the ToUcam and then run through the IR/Methane/UV filters in the long exposure mode of the ATiK camera. This worked well last spring while imaging Jupiter, saved time by not having to capture and combine RGB frames with the ATiK camera, and keeping the complete sequence of filters under 10min to minimize rotation of Jupiter.

Conditions were only moderate for these images...strong winds caused a lot of image motion in the video clips, but the actual image quality was good when you examined the individual frames.

Please note that I have revised my distribution list. Please let me know if anyone who does not wish to receive these images and I will revise the list.

Questions/comments always welcome.

Brian COLVILLE (ブライアン・コルヴィル Canada 加)

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www.quicklinks.on.ca/~maple

CMO 2005 Mars Report # 03

OAA Mars Section

THIS deals with the period from 15 January ($\lambda=145^\circ\text{Ls}$) to 16 February 2005 ($\lambda=158^\circ\text{Ls}$) during which the apparent diameter δ remained 4.4" to 4.8". In Japan, the winter atmosphere pressure configuration prevailed and especially at the sea side of the main island the weather has been terrible in general. The snowfall has been not so thick, being 33 cm deep at most in Fukui, but snowfall repeats if snow was melted away. The region facing to the Pacific Ocean has been rather mild, but they say the seeing has been terrible. The apparent declination was from -22.5° to -23.75° , and quite low from the northern hemisphere. However even then *MVT's* Mars in Australia below was taken, the altitude was only 18° . The central latitude ϕ of the surface was 4°S .

♂……………今回の報告は15Jan($\lambda=145^\circ\text{Ls}$)から16Feb($\lambda=158^\circ\text{Ls}$)までの一ヶ月に関する火星面観測であるが、相変わらず天候/シーイングが回復せず連続観測が出ない。裏日本は例年になく曇・雨・雪の日が多く話にもならない。雪の量は然程でなく、福井は最大で33cmだったと思うが、消えてまた降るといふ具合である。表日本は概ね好い天気に恵まれていると思うが西高東低ではシーイングに恵まれないのであろうと思う。この間、 δ は4.4"から4.8"に延びただけ。視赤緯が、 -22.5° から -23.75° と下がって北半球では不利になっている。蠍座、アンタレスの左の方に見えている。中央緯度 ϕ は 4°S 。

♂……………観測は次の通り : The observations reported are listed below:

AKUTSU, Tomio 阿久津 富夫(Ak) 栃木・烏山 Tochigi, Japan

1 CCD Image (21 January 2005) $f/26 \otimes 32\text{cm}$ spec with an ATK-1HS

MINAMI, Masatsugu 南 政 次(Mn) 福井 Fukui, Japan

3 Drawings (23, 28 January 2005) $400 \times 20\text{cm}$ refractor*

* Fukui City Observatory 福井市自然史博物館屋上天文臺

MORITA, Yukio 森田 行雄(Mo) 廿日市 Hatsukaichi, Hiroshima, Japan

1 set of CCD Images (12 February 2005) 25cm spec with an ST-5C

VALIMBERTI, Maurice モーリス・ヴァリムベルティ(MVI)

メルボルン Melbourne, Australia

1 CCD Image (13 February 2005) $f/27 \otimes 35\text{cm}$ SCT with a ToUcam

Ak's image on 21 Jan was taken at $\omega=014^\circ\text{W}$, with just a shadow area in the southern hemisphere. *Mn's* poor observation on 23 Jan was made at $\omega=350^\circ\text{W}$, while Syrtis Mj was missed. On Don PARKER's birthday ($\lambda=151^\circ\text{Ls}$) we had first a fine morning sky at Fukui, and *Mn* observed at $\omega=306^\circ\text{W}$ & 316°W catching faintly Syrtis Mj and S Sabæus. Hellas was white. *Mo* failed to make images (on 2, 9, 15, and 29 Jan) until 12 February when his IR at $\omega=162^\circ\text{W}$ first definitely showed the southern sea, while the B however does not particularly depict the white cloud distribution. *VMI's* image on 13 February ($\lambda=160^\circ\text{Ls}$) was produced at $\omega=089^\circ\text{W}$ with a disk of fresh Martian colour: The image shows a shadowy area at the evening part of the disk around Solis L.

♂……………Ak氏の像は $\omega=014^\circ\text{W}$ で、条件が悪く、やや南部に陰翳が見える程度、ディスクもシッカリしない。筆者(Mn)の23Janは $\omega=350^\circ\text{W}$ だがシーイングが悪い。28Jan($\lambda=151^\circ\text{Ls}$)の福井は久しぶりの快晴で、 $\omega=306^\circ\text{W}$ 、 316°W でシュルティス・マイヨルが見える他、シヌス・サバエウスも一二度見えた。ヘッラスは白。Mo氏は一月は2、9、15、29日と撮像しながら、模様が出なくて、初めて12FebのMoIR像($\omega=162^\circ\text{W}$)で南半球の海が明確に出た。Rなども好い。ただ、IRの北のケルベルスの邊りは出過ぎであろう。また、寧ろB像がもう少し暗くてもよい。VMI氏のは $\lambda=160^\circ\text{Ls}$ 、 $\omega=089^\circ\text{W}$ でソリス・ラクスのあたりが暗く、像は火星の本来の色で綺麗ある。Mo氏の像とVMI氏の像はCMO-Internetで見られる。既に、Ak氏の昨年十一月の良像はuploadされている。 **Masatsugu MINAMI (南 政 次)**

一點點・一天天 : **Encode** : ◆いまではそういう人はいないと思うが、同じMS-Windowsでも昔はCMOが文字化けして読めないと仰有る人がいた。それは多分エンコードが例えば日本語(以下N)で入っているものを西ヨーロッパ言語(以下E)で読んで居るか、その逆というようなことだったろうと思う。◆だから簡単に、「表示」のところから「エンコード」を選び、NなりEなりを選べばよい。◆実はこれは作る側にも問題があって、CMOの様に和洋両方を作っていると、作る時にエンコードを間違えることがある。Nコードでも英語は書けるから、海外で向こうのエンコードで読むと、いろいろ奇妙な記號が挟まっている筈なのである。◆初期のCMOにもないことはないが、もっとひどいのは、Nと英語を並べているサイトがある。向こうの人の多くはNのフォントを持っていないであろうから、化け文字の羅列と並んだ英語を拾い出すということになる筈である。

◆英文のサイトを読む時は通常「E」のエンコードに変換して 読まれることをお奨めする。美的水準が全く違う。◆尤も、IEの標準は「MSPゴシック」で、これだと日本語も英語も似た様に表示され、普通の易造りのサイトでも然程見難くはない。しかし、一寸エンコードを舶來に換えるだけで、多分、原文がTimes New Romanで書かれていることに氣附く筈である。◆扱て、最近のCMOのサイトは基本的にはNは「MS明朝」で、英文は「Times New Roman」でお読みいただくことに調整されている。MS明朝嫌いの人はお手上げである。Mk氏の作っているGallery等はNで読んでもEで読んでも、化け文字の出ないように調整されているので、多くの方はNのまま入って違いに氣附くことはない場合が多いと思う。然し實は一寸した違いも出るのである。例えば、Eで読めば123°Lsとなるとところが、Nでは123° Lsと間が抜けるのである。Mk氏がマヌケなのではない。(Mn)

Forthcoming 2005 Mars (5)

Ephemeris for the Observation of the 2005 Mars. III

March and April 2005

Masami MURAKAMI

村上 昌己(Mk)

◆This is a sequel to Part II in #300 where the Ephemeris for the Physical Observation of Mars from 1 January to 28 February 2004 was given, and the present one deals with the Ephemeris of the period from 1 March 2005 to 30 April 2005: The data are listed for every day at 00:00 GMT (not TDT). ω and ϕ denote the longitude

and latitude of the sub-Earth point respectively. The symbols λ , δ and ι stand for the areocentric longitude of the Sun, the apparent diameter and the phase angle respectively. The apparent declination of the planet is given at the last column. The data are basically based on *The Astronomical Almanac for the Year 2005*.

Date (00:00GMT)	ω	ϕ	λ	δ	ι	Declination
01 March 2005	38.30°W	9.6°S	167.93°Ls	5.1"	32.8°	-23°06'
02 March 2005	28.54°W	9.9°S	168.47°Ls	5.1	32.9	-23 02
03 March 2005	18.78°W	10.2°S	169.01°Ls	5.2	33.1	-22 57
04 March 2005	9.02°W	10.5°S	169.56°Ls	5.2	33.3	-22 53
05 March 2005	359.25°W	10.8°S	170.10°Ls	5.2	33.5	-22 48
06 March 2005	349.49°W	11.0°S	170.65°Ls	5.2	33.6	-22 43
07 March 2005	339.72°W	11.3°S	171.19°Ls	5.3	33.8	-22 37
08 March 2005	329.95°W	11.6°S	171.74°Ls	5.3	34.0	-22 32
09 March 2005	320.18°W	11.9°S	172.30°Ls	5.3	34.2	-22 26

Date (00:00GMT)			ω	φ	λ	δ	ι	Declination
10	March	2005	310.41°W	12.2°S	172.85°Ls	5.3"	34.3°	-22° 20'
11	March	2005	300.64°W	12.4°S	173.40°Ls	5.3	34.5	-22 14
12	March	2005	290.86°W	12.7°S	173.95°Ls	5.4	34.7	-22 07
13	March	2005	281.09°W	13.0°S	174.51°Ls	5.4	34.8	-22 01
14	March	2005	271.31°W	13.3°S	175.06°Ls	5.4	35.0	-21 54
15	March	2005	261.53°W	13.5°S	175.61°Ls	5.4	35.1	-21 47
16	March	2005	251.75°W	13.8°S	176.17°Ls	5.5	35.3	-21 40
17	March	2005	241.96°W	14.1°S	176.73°Ls	5.5	35.5	-21 32
18	March	2005	232.18°W	14.3°S	177.29°Ls	5.5	35.6	-21 25
19	March	2005	222.39°W	14.6°S	177.85°Ls	5.5	35.8	-21 17
20	March	2005	212.60°W	14.8°S	178.41°Ls	5.6	36.0	-21 09
21	March	2005	202.80°W	15.1°S	178.97°Ls	5.6	36.1	-21 00
22	March	2005	193.01°W	15.3°S	179.53°Ls	5.6	36.3	-20 52
23	March	2005	183.21°W	15.6°S	180.09°Ls	5.6	36.4	-20 43
24	March	2005	173.41°W	15.8°S	180.66°Ls	5.6	36.6	-20 35
25	March	2005	163.61°W	16.1°S	181.23°Ls	5.7	36.8	-20 26
26	March	2005	153.81°W	16.3°S	181.79°Ls	5.7"	36.9°	-20° 16'
27	March	2005	144.01°W	16.6°S	182.36°Ls	5.7	37.1	-20 07
28	March	2005	134.20°W	16.8°S	182.93°Ls	5.8	37.3	-19 57
29	March	2005	124.39°W	17.1°S	183.50°Ls	5.8	37.4	-19 48
30	March	2005	114.58°W	17.3°S	184.06°Ls	5.8	37.6	-19 38
31	March	2005	104.77°W	17.5°S	184.63°Ls	5.8	37.7	-19 28
01	April	2005	94.95°W	17.8°S	185.21°Ls	5.9	37.9	-19 18
02	April	2005	85.14°W	18.0°S	185.78°Ls	5.9	38.0	-19 07
03	April	2005	75.32°W	18.2°S	186.36°Ls	5.9	38.2	-18 57
04	April	2005	65.50°W	18.4°S	186.93°Ls	5.9	38.3	-18 46
05	April	2005	55.67°W	18.6°S	187.51°Ls	6.0	38.5	-18 35
06	April	2005	45.85°W	18.8°S	188.08°Ls	6.0	38.6	-18 24
07	April	2005	36.02°W	19.1°S	188.66°Ls	6.0	38.8	-18 13
08	April	2005	26.19°W	19.3°S	189.23°Ls	6.1	38.9	-18 01
09	April	2005	16.36°W	19.5°S	189.81°Ls	6.1	39.0	-17 50
10	April	2005	6.53°W	19.7°S	190.40°Ls	6.1	39.2	-17 38
11	April	2005	356.69°W	19.9°S	190.98°Ls	6.1	39.3	-17 26
12	April	2005	346.86°W	20.1°S	191.56°Ls	6.2	39.4	-17 14

Date (00:00GMT)			ω	ϕ	λ	δ	ι	Declination
13	April	2005	337.02°W	20.3°S	192.14°Ls	6.2"	39.6°	-17° 02'
14	April	2005	327.18°W	20.4°S	192.73°Ls	6.2	39.7	-16 49
15	April	2005	317.33°W	20.6°S	193.31°Ls	6.3	39.9	-16 37
16	April	2005	307.49°W	20.8°S	193.89°Ls	6.3	40.0	-16 24
17	April	2005	297.64°W	21.0°S	194.48°Ls	6.3	40.2	-16 12
18	April	2005	287.79°W	21.2°S	195.07°Ls	6.3	40.3	-15 59
19	April	2005	277.94°W	21.3°S	195.66°Ls	6.4	40.5	-15 46
20	April	2005	268.09°W	21.5°S	196.25°Ls	6.4	40.6	-15 33
21	April	2005	258.24°W	21.7°S	196.84°Ls	6.4	40.7	-15 20
22	April	2005	248.38°W	21.8°S	197.43°Ls	6.5	40.9	-15 06
23	April	2005	238.53°W	22.0°S	198.02°Ls	6.5	41.0	-14 53
24	April	2005	228.67°W	22.1°S	198.61°Ls	6.5	41.1	-14 39
25	April	2005	218.81°W	22.3°S	199.21°Ls	6.6	41.2	-14 25
26	April	2005	208.95°W	22.3°S	199.80°Ls	6.6	41.4	-14 12
27	April	2005	199.08°W	22.6°S	200.40°Ls	6.6	41.5	-13 58
28	April	2005	189.22°W	22.7°S	200.99°Ls	6.7	41.6	-13 44
29	April	2005	179.35°W	22.8°S	201.59°Ls	6.7	41.7	-13 29
30	April	2005	169.48°W	23.0°S	202.19°Ls	6.7	41.9	-13 15
01	May	2005	159.61°W	23.1°S	202.78°Ls	6.7"	42.0°	-13° 01'
02	May	2005	149.74°W	23.2°S	203.38°Ls	6.8	42.1	-12 46

シー・エム・オー・フクイ

中島 孝 Nj

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