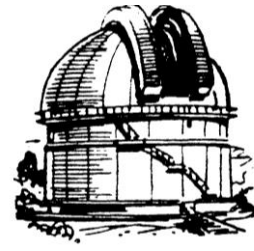

Journal

of the



Nottingham Astronomical Society

March 2002

Inside this issue

- Sky Notes for March 2002
- Diary Dates
- Spacecraft News
- Volunteers Wanted
- Best of the Web: Comet Ikeya-Zhang

Thursday 7th March

at Djanogly C.T.C.

Doors open 7.30pm

**Astronomy at the
University of Nottingham:
From ten inches to ten metres,
and everything in between**

is the title of the evening's talk, and we are pleased to welcome our guest speaker

Professor Michael R. Merrifield

BA (Oxon), AM, PhD (Harvard)

The Society's Annual Dinner

A last reminder that the Society's annual dinner takes place on **Tuesday** 19 March. (meet 6.00 for 6.30pm meal) at New College Nottingham (formerly Clarendon College). The cost is £10.50 and if you would like to join us, please contact David Lukehurst as soon as possible.

April Meeting

Are We Alone? is the title of our talk on Thursday 4th April and our guest speaker will be Dr. Frazer Pearce, Department of Physics and Astronomy, University of Nottingham.

SKY - NOTES FOR MARCH

Brian Griffin
Director of Observing



SOLAR & PLANETARY DATA

| Object | Date | R.A. h m | Dec ° ' " | mag | dia " | Elong. / Constellation / Visibility |
|---------|--------|-------------|--------------|------|----------|--------------------------------------|
| Sun | Mar 2 | 22 51 | - 7 21 | | | |
| | 12 | 23 28 | - 3 28 | | | |
| | 22 | 00 04 | + 0 29 | | | |
| Mercury | Mar | | | | | Poorly placed as a morning object |
| Venus | Mar 27 | 01 28 | + 8 26 | -3.8 | 10.4 | evening sky ,17° , W |
| Mars | Mar 7 | 02 06 | +13 05 | +1.3 | 4.7 | evening sky , W, Aries |
| | 27 | 03 01 | +17 39 | +1.4 | 4.4 | evening sky , W, Aries |
| Jupiter | Mar 7 | 06 25 | +23 27 | -2.4 | 41x39 | evening sky , SW , Gemini |
| | 27 | 06 29 | +23 26 | -2.2 | 39x36 | evening sky , SW , Gemini |
| Saturn | Mar 7 | 04 29 | +20 14 | +0.1 | 16.6 | evening sky , SW , Taurus |
| | 27 | 04 31 | +20 22 | +0.1 | 16.3 | evening sky , SW , Taurus |
| Uranus | Mar | | | | | Too close to the Sun for observation |
| Neptune | Mar | | | | | Too close to the Sun for observation |

LUNAR DATA

| | | | | |
|----------------------|-------------|---------|-----------|---------|
| <u>Phases</u> March | Last Qtr : | 6d 01h | New : | 14d 02h |
| | First Qtr : | 22d 02h | Full : | 28d 18h |
| <u>Apsides</u> March | Apogee : | 14d | Perigee : | 28d |

RISING AND SETTING TIMES (UT)

February 28/March 1

| | |
|---------------|---------|
| Sun set | 17h 35m |
| Venus sets | 18 40 |
| Mars sets | 22 20 |
| Saturn sets | 01 40 |
| Jupiter sets | 04 10 |
| Neptune rises | 05 40 |
| Mercury rises | 06 05 |
| Uranus rises | 06 20 |
| Sun rise | 06h 50m |

March 31/April 1

| | |
|---------------|---------|
| Sun set | 18h 30m |
| Venus sets | 20 20 |
| Mars sets | 22 25 |
| Saturn sets | 00 00 |
| Jupiter sets | 02 15 |
| Neptune rises | 03 40 |
| Uranus rises | 04 25 |
| Mercury rises | 05 35 |
| Sun rise | 05h 40m |

COMET

Comet C/2002 C1 (Ikeya-Zhang) may be glimpsed, using binoculars, in the evening sky just as twilight ends. However, a clear NW horizon will be needed as the elongation is not very large (30°). This comet may be the return of the comet C/1532 R1 (period 400-500 years). Details of where to find this comet are given below:

| Date | R.A. h m | Dec ° ' | Magnitude | Elongation ° |
|--------|-------------|------------|-----------|-----------------|
| Mar 11 | 01 20 | +9 54 | 4.8 | 32 |
| Mar 17 | 01 26 | +16 57 | 4.2 | 31 |
| Mar 19 | 01 27 | +19 27 | 4.1 | 31 |
| Mar 21 | 01 27 | +22 02 | 4.0 | 30 |
| Mar 23 | 01 25 | +24 40 | 4.0 | 30 |
| Mar 25 | 01 23 | +27 21 | 4.0 | 30 |
| Mar 27 | 01 20 | +30 03 | 4.0 | 31 |
| Mar 29 | 01 15 | +32 46 | 4.0 | 31 |
| Mar 31 | 01 10 | +35 29 | 4.1 | 32 |

Although the elongation of the comet is not large, when this is projected on to the night sky it is very favourable for observation. This is because the comet stands virtually vertically above the Sun at sunset, thereby giving the maximum amount of time for observation after the sun has set. I would suggest waiting about 1hr after sunset before commencing observations.

The comet moves through Pisces and crosses the border in to Andromeda at the end of March, being close to Beta Andromedae on Mar 31.

Good Luck if you do decide to find this comet.

DIARY DATES, by Carl Brennan

Future Meetings of the Nottingham Astronomical Society

2002

March 7th Djanogly C.T.C.

Doors open from 7.30pm
**ASTRONOMY AT THE UNIVERSITY
OF NOTTINGHAM:
FROM TEN INCHES TO
TEN METRES, AND
EVERYTHING IN BETWEEN**
Professor Michael R. Merrifield
BA (Oxon), AM, PhD (Harvard)

March 19th (TUESDAY)

ANNUAL SOCIETY DINNER
Meet 6.00 for 6.30pm meal at New
College Nottingham
(what used to be Clarandon).
Price £10.50 – sample menu with
El Presidente, other details from
Peter Davison.

April 4th Djanogly C.T.C.

Doors open from 7.30pm
ARE WE ALONE?
Dr. Frazer Pearce, Department of Physics
and Astronomy, University of Nottingham

July 4th Djanogly C.T.C.

Doors open from 7.30pm
**SETI AND OUR PART IN
PROJECT PHOENIX**
Dr Ian Morrison, Jodrell Bank

September 5th Djanogly C.T.C.

Doors open from 7.30pm
**THE HUMANIZATION
OF SPACE**
Talk by Dr. Michael Martin-Smith, author
and member of Hull Astronomical Society

Other Events

8th March to 16th March

NATIONAL SCIENCE WEEK
Look out for events locally.

9th March BAA Deep Sky Section Meeting.
See BAA homepage for details of venue etc.

**16th March BAA Special Meeting and Ordinary
Meeting** Speaker Prof. Peter Meikle –*Supernovae*

22nd March to 24th (Friday to Sunday)

BAA Winchester Weekend. Prof. Chandra
Wickramasinghe will be one of the main speakers.
[BAA Winchester Weekend \(Residential\)](#)
<[ww2002p1.jpg](#)> for booking form and details.

23rd March Open Evening

Sherwood Observatory, Coxmoor Road,
Sutton-in-Ashfield, Notts.
Open from 7.30pm, (£1.50 Adults, £1.00 Juniors)
Wear warm clothing!

**11th May Ilkeston & District Astronomical
Society** Celebrates its' 10th Anniversary with a one
day convention. To be held at Heanor Welfare
Centre, Wilmot Street, Heanor. Advance tickets
are £5.00. Make cheques out to "Ilkeston and
District Astronomical Society", and send them to
Harry Bingham, 38 Broadway, Heanor,
Derbyshire, DE75 7GW.

18th May Saturday 10:30am Webb Society
Annual General Meeting at Rutherford-Appleton
Laboratory, Nr. Oxford

**9th to 12th August Scarborough & District
Astronomical Society Summer Star Festival**
Details from Carl Brennan, or Mrs. S. Aderson, 25
Highfield, Scarborough, N. Yorks, YO12 4AW,
Telephone 01723 500389, E-mail
gwernan2@ukf.net
www.baryte.demon.co.uk/astro/

Future Events

The next National Astronomy Week.

On 27 August 2003 the planet Mars will come to a
particularly good opposition. To celebrate this
event, Britain's astronomers are planning another
National Astronomy Week
<http://www.astronomyweek.org.uk>

Nottingham Astronomical Society

The Secretary compiles these Diary Dates. Contributions are
always welcome (please include source acknowledgement).
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no responsibility for any errors that may occur within this
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the individual authors and not necessarily endorsed by the
Secretary, Nottingham Astronomical Society, it's Committee or
Members.

SPACECRAFT NEWS (23/02/02)

Mars Odyssey

19 February, 2002

NASA's Mars Odyssey spacecraft has begun its science mapping mission. The spacecraft turned its science instruments toward Mars on Monday, February 18.

Flight controllers report that the thermal emission imaging system was turned on this morning. The camera system, which takes both visible and infrared images, will go through a period of calibration before the first science images are taken during the next few days. The first images will be released at a news conference on March 1.

The gamma ray spectrometer instruments are collecting data on the composition of the martian surface. The door on the gamma ray sensor was opened yesterday, allowing the instrument to cool down to its operating temperature. The instrument will be fully operational later this week. The neutron spectrometer and high-energy neutron detector are collecting data that scientists expect will show the location of hydrogen on Mars, which may indicate deposits of water ice.

Having passed these milestones, engineers plan to begin troubleshooting the martian radiation environment experiment next week. The process of evaluating the status of the instrument could continue for several weeks. The radiation experiment stopped communicating and was turned off in August 2001.

Pluto Express

14 February, 2002

The Pluto–Kuiper Belt flyby (and a planned Europa orbiter) get axed under the new plan. In a letter to planetary astronomers, Wesley T. Huntress Jr. said the administration felt "that the Outer Planets line had been performing poorly to cost and had no clear articulation of priorities."

Dropping these missions allowed the administration to propose a new line called New Frontiers. As with the existing Discovery line (small, narrowly focused, relatively cheap missions that included NEAR-Shoemaker and Mars Pathfinder), calls for proposals will be open to government, industry, and academic institutions and subject to competition. Costs will be capped at \$600 million apiece, twice the Discovery limit.

21 February, 2002

New Horizons mission planners have developed a new strategy that could trim nearly a year off their original schedule to send a spacecraft to the solar system's outermost planet.

Now in preliminary development for NASA, New Horizons would be the first mission to explore Pluto and its moon, Charon, as well as the ancient Kuiper Belt of rocky, icy objects beyond the planets. If approved and funded later this year, New Horizons would launch in January 2006, swing around Jupiter for scientific studies and a gravity boost in 2007, and reach Pluto as early as 2015.

"As we continued to study the mission, and optimised our launch window, we realised that we could get the spacecraft to Pluto sooner," says New Horizons Mission Director Robert W. Farquhar, of The Johns Hopkins University Applied Physics Laboratory in Laurel, Md., which manages the mission and will build and operate the spacecraft. "In our best estimates we can cover the 3 billion miles from Earth to Pluto faster than we once thought, while keeping all the mission's goals intact."

New Horizons project leaders say a faster trip benefits the mission in many ways.

"This a great opportunity to improve our scientific return while reducing mission risks and costs," says New Horizons Principal Investigator S. Alan Stern, of the Southwest Research Institute in Boulder, Colo. "We'll get a better look at Pluto itself, since more of the surface will be sunlit and the atmosphere will be another year away from freezing onto the planet's surface. We'll have more fuel for the journey into the Kuiper Belt after exploring Pluto–Charon, and the shorter cruise time reduces some of the costs associated with flight operations."

New Horizons will characterise the global geology and geomorphology of Pluto and Charon, map their surface compositions and temperatures, and study Pluto's complex atmosphere in detail. The spacecraft will then visit up to three Kuiper Belt objects beyond Pluto.

Extracts from JPL/NASA web sites.

Brian Griffin

VOLUNTEERS WANTED!

To help at the Society's Observatory Site

There is still work to be done at the Nottingham Astronomical Society's Observatory site, to prepare the building for the large telescope. If you are good at "DIY", the Society needs your help!

So if you are able to help out at the site on Saturdays, **Robin Gray** (Curator of instruments) or **Brian Griffin** (Director of Observing) will be delighted to hear from you. Their phone numbers are on the back page of the Journal, or just have a word with them at the monthly meetings at Djanogly CTC.

Thank you.

Best of the Web

Comet Ikeya-Zhang

Sky-Notes in this issue of the Journal gives details of Comet C/2002 C1 (Ikeya-Zhang). Here are some websites suggested by Graham Shepherd of Mansfield & Sutton AS.

Sky and Telescope magazine:

http://skyandtelescope.com/observing/objects/comets/article_477_1.asp

Orbital elements:

<http://www.fg-kometen.de/C2002C1/2002c1e.htm>

<http://cfa-www.harvard.edu/iau/Ephemerides/Comets/2002C1.html>

Charts:

<http://www.shopplaza.nl/astro/comets/chartc1p3.htm>

<http://www.shopplaza.nl/astro/comets/chartc1p4.htm>

Nottingham Astronomical Society

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Tel: 0115 9602266

e-mail: gildor@ntlworld.com

“Small Ads” in the NAS Journal

The Journal can accept small advertisements, as long as they relate in some way to astronomy or space science.

NAS Members' advertisements of up to 50 words are accepted free of charge.

Advertisements of a commercial nature are accepted at a cost of £1 per issue or £10 for the year (11 issues).

All advertisements are accepted at the discretion of the Journal Editor.

Please send your advertisement to the Journal Editor.

Cheques in payment for commercial advertisements should be made payable to “Nottingham Astronomical Society” and sent to the Treasurer.

The Widescreen Centre

18, LADY BAY ROAD, Nottingham, NG2 5BJ

0115 945 5459 FAX: 0115 945 5362

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www.telescopes-direct.com

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APPLICATION FOR MEMBERSHIP

If you would like to join the Nottingham Astronomical Society, please complete and tear off this slip. Make your cheque/postal order payable to:

THE NOTTINGHAM ASTRONOMICAL SOCIETY

Then send the slip and payment to Carl Brennan, Hon. Secretary, **Nottingham Astronomical Society**, 40 Swindon Close, The Vale, Giltbrook, Nottingham NG16 2WD.

Alternatively you may hand the slip and payment to the Secretary or Treasurer at one of the Society's regular meetings.

Your name _____

Full address _____

_____ Postcode _____

I wish to join the Nottingham Astronomical Society and enclose the membership fee for

(please tick appropriate box)

- Full Adult £22
- Junior (17 years or under) £11
- Concession (*full time student, UB40, Senior Citizen*) £11

Nottingham Astronomical Society

Affiliated to the **British Astronomical Association**
Member of the **Federation of Astronomical Societies**
Member of the **Society for Popular Astronomy**
Supporters of the **Campaign for Dark Skies**
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e-mail: mike.provost@ntlworld.com

Meetings

Formal monthly meetings, with speakers, are held on the first Thursday of each month (except August) at

Djanogly City Technology College

Sherwood Rise, Nottingham NG7

| | |
|----------------|---------|
| Doors open | 7.30pm |
| Meetings Start | 7.45pm |
| Meetings end | 10.00pm |

Non-members are very welcome at our meetings and there is no charge for the first meeting. We make a small charge of £2.50 adults, £1.25 juniors to non-members after their first attendance. Invited guests are admitted free of charge.

Annual Subscriptions, 2001-02

| | |
|----------------------------|-----|
| Full Adult: | £22 |
| Junior (17 years or under) | £11 |
| Concessions | £11 |

(Full time student, UB40, Senior Citizens)

Subscriptions become due at the October AGM. Half-price subscription is charged if joining after 1st April. Please make cheques payable to:
Nottingham Astronomical Society.

Saturday Night Observing Sessions

These are dependent on suitable sky conditions. Please phone either:

Brian Griffin 0115 929 8364, or

Robin Gray 0115 965 6340

approximately one hour before sunset on Saturday evenings, to check if the observing site will be open. (Sunset times are in **Sky Notes**.)

If you would like further information about the Nottingham Astronomical Society, or would like to become a member, please

- contact the Honorary Secretary, Carl Brennan, at the address given above or
- speak to any NAS committee member at one of the regular monthly meetings.

A membership application form appears inside this issue of the Journal.
