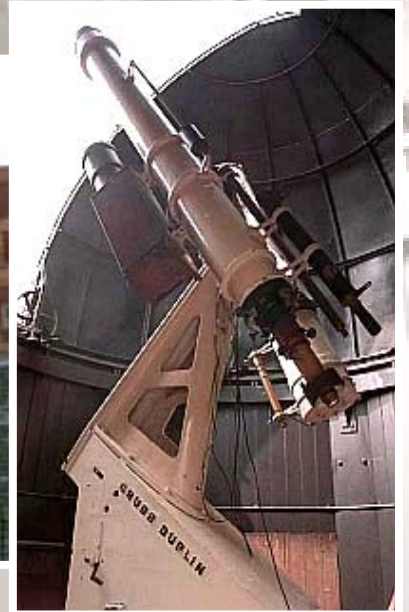




CURRENT NOTES

Centenary Edition



1903 - 2003

RUBB DUBLIN

Introduction to this issue

HELLO, and welcome to this centenary edition of **CN**. The main theme running through this issue is one of celebration; of both our society and this wonderful hobby we share. The issue has been organised into three main sections: **Looking Back**; **The MAS - AD 2003**; and **Looking Forward**.

The first of these sections - ***Looking Back***, includes a review of the historical development of the society, from its beginnings as a small group of advanced amateurs, to its current form. Particular attention is paid to past MAS members who have made a considerable contribution not only to the society, but to the astronomical community at large. Following this, in looking back at our own internal publication, a selection of excerpts from past issues of **CN** is presented, giving a flavour of what previous members were talking about.

The following section - ***The MAS - AD 2003***, includes a selection of members' profiles, with current members taking the opportunity to give their own particular accounts of the hobby of astronomy and their membership of the MAS. A selection of this year's events and centenary celebrations is also presented in words and pictures.

Finally, in the last section - ***Looking Forward***, several MAS members consider possibilities for the future, in areas ranging from amateur comet discovery to space travel.

As with all issues of **CN**, this issue is composed solely from members' contributions. Without these, the production of **CN** would not be possible. Many thanks then to all those members who took the time to contribute. To begin with, our current president Graham Hodson provides his own perspective on the society, by looking back at some of the year's events, and pointing to how the future of the society might be secured through members' continued contribution and support.

I hope current and future members enjoy this issue...

**ROB
PHILBURN**

(Editor)



Contributors to this issue.

Graham Hodson; Kevin Kilburn; Colin Harrison; Janet Maresh; Dame Kathleen Ollerenshaw; Dr. Mukti Bhattacharyya; Cliff Meredith; Mike Oates; Robert Fletcher; Guy Duckworth; Anthony Jennings; Bob Parkinson and Dennis Jones.

In addition to the above, thanks to Sotira Trifourki and Tony Cross for their help with the reviews of past issues of CN. Thanks also to those who helped with proofreading of this and earlier drafts.

Our Centenary Year: The President's Thoughts and Reflections

GRAHAM HODSON
F.R.A.S.
President



THIS YEAR HAS BEEN A BUSY TIME FOR THE MAS.

The advent of the Society's centenary has meant more than the usual number of Council meetings in order to organise the various events planned to celebrate 100 years of existence. The year has provided a wonderful opportunity for current members to come together to celebrate both the longevity of the society, and their shared passion for astronomy as a hobby.

On 30th August, society members attended the Astroday, held in central Manchester. Those who could attend thoroughly enjoyed the day. On the actual day of our centenary (September 18th), the Godlee observatory was venue for an informal MAS Birthday Party. Around 25 members were able to attend, and were treated to a wonderful buffet and a slice of special MAS "Birthday" cake, kindly provided by MAS member Janet Maresh. A few weeks later, on October 3rd, a formal Centenary Dinner was held in the Harwood Room, UMIST, courtesy of the university authorities. Professor Tom Millar attended the dinner and presented the university's gift of a digital projector to the MAS, which I, on behalf of the society, gratefully accepted. To round off the year, on December 18th the society held an 'expanded' Christmas Party which included members' partners. The celebrations will not however end

there, as more events are planned for 2004. For example, a Star Party, which will be a joint effort with Chester AS, is scheduled for some time in the New Year.

My thanks then go to all those people who managed to attend one or the other event. Your efforts are appreciated and an example to us all of the need to actively contribute to and participate in the society's events and activities. Without this commitment, the society would not and could not exist.

From a personal perspective, in my first year of office as President I have learnt a great deal about the dynamics of our society, and about how I might contribute to the way in which the MAS operates at this point in our long history. In particular, I have tried to encourage a more 'social' atmosphere. This is based on my recognition that we are societal in nature, and share a set of common interests, none more so than the desire to share with others our enjoyment of this wonderful hobby. In this sense then, I am personally indebted to those members whose hard work and sacrifice helped make for a successful year of celebrations. You are an example to us all.

“ From a personal perspective, in my first year of office as President I have learnt a great deal about the dynamics of our society, and about how I might contribute to the way in which the MAS operates at this point in our long history ”

I would also briefly like to mention some of the assets acquired in this centenary year, and how these might benefit our future activities. The valuable gift of the digital projector and the purchase of a laptop computer have enabled members to add PowerPoint presentation techniques to their informal talks, as well as facilitating similar presentations by our

3 Current Notes: Centenary Edition

guest lecturers. The society has also acquired a second slide projector, courtesy of Steve Hodgkinson, with the capability of using large capacity slide cartridges. A large format (8 feet



Professor Tom Millar and myself at the Centenary dinner. UMIST's gift of a digital projector will be a great asset to the society and is appreciated by all.

square) professional projection screen has also been acquired out of the income generated by Astroday. This will be erected in the Octagon room once suitable hanging brackets have been constructed. Finally, of interest to many in this age of affordable digital imaging, the adaptation of the Godlee 12" reflecting telescope to facilitate "webcam" images of

astronomical objects to be projected in the Octagon Room is currently underway under the guidance of Mark Pawley and Anthony Jennings. Should this trial using a webcam prove to be a success with the membership, the Society will investigate the possibility of acquiring an "astronomical" digital camera as a replacement for the webcam, subject to sufficient funds being available.

I have enjoyed immensely participating in the various events to celebrate our 100th birthday and feel, needless to say, privileged to have been elected to the office of President at this historic time. I hope and expect the society to continue to grow and develop over the near and long-term future. This will only happen however if we effectively all pull together. Successive generations of active membership have brought us to this point in our history. We owe it to them, and the members of the future, to continue to contribute to our society.

B R E A K I N G N E W S

MAS Member Michael Oates has Minor Planet named after him

At the time of going to press, it was announced by Sebastian Höning that minor planet 68948 was dedicated to fellow SOHO comet hunter MAS member Michael Oates by the Committee on Small Body Nomenclature. *Citation:* "Discovered 2002 Aug. 8 by S. F. Höning on NEAT images taken at Palomar. Through 2003 Michael Oates (b. 1957) has been the most successful SOHO comet hunter. Using his personal computer and fast Internet connections to scan through the SOHO LASCO image archive, he is credited with 138 near-sun comet discoveries."

Further details of Michael's comet hunting (143 so far) can be found on page 17.



Early to bed, annular rise, glittering surprise!

Having decided against travelling to the northern regions of the Shetland Islands to watch the May 31st 2003 eclipse, we took the 'stay at home' option, and during Friday evening, decided to go to bed early and travel very early the next morning to Scarborough. A cloudy awakening at 0030 saw us on the move shortly afterwards, arriving on the coast at the famous spa complex at 0230, to be greeted with a still, clear sky but a hazy, almost seafret covered horizon. Scarborough A.S. were hosting an excellent presentation for the many hundreds who assembled to witness the eclipsed sunrise at approx. 0340. Once the crescent sun had penetrated and then cleared the low horizon mist, we were treated to a spectacular event, enhanced by a calm sea and still air, producing a stunning dawn and memorable glitter path – an event I even managed to record on film! A precious memory to remember the centenary by.

Bob Parkinson & Jo Hardy

1. LOOKING BACK

A Spotlight on the Past



KEVIN KILBURN,
FRAS

On 18th September 1903, a group of former members of the late North Western Branch of the BAA gathered in the lower room of the Godlee Observatory, and it was decided to form the *Manchester Astronomical Society (MAS)*. Professor Thomas H Core MA took the chair and was elected its first president. Samuel Okell, the Honorary Treasurer and William C Jenkins, the director of the Godlee Observatory and already employed by the college, became the Honorary Secretary. The Manchester Astronomical Society blossomed. Within ten years it had over a hundred members and would go on to command lectures from the highest scientific authorities in the land, including Prof. R.A. Sampson, Astronomer Royal for Scotland, and Prof. Arthur Eddington.

In late 1919, a difference of opinion between the vice president, William Porthouse and the Principal, J.C. Maxwell Garnett, resulted in MAS vacating the Technical College in favour of 65 George Street, the home of the Manchester Lit & Phil and the former home of John Dalton, the Manchester scientist and chemist. Shortly before the Second World War, MAS moved to the central library but its rooms were taken for war work. It was to be twenty-six years before MAS again called the Godlee observatory its home, during which time the Manchester blitz not only destroyed 65 George Street, but forced MAS to suspend its activities, albeit temporarily, during 1941.

At the Council meeting in the Milton Hall, Deansgate, on 19th May, 1942, following the forced hiatus in the society's proceedings during the Manchester blitz, it was observed by William Porthouse that there



was increased interest in the night skies but; "the Society would have to be satisfied with the members it could get, and these were mainly of the 'popular' type". It is fascinating to conjecture what he meant by this odd statement. More than anything else, it shows that until 1939 the MAS had been a meeting place of academics and 'professionals' - the well-to-do. Some had lived close to the city centre and of these, many had moved away at the onset of war. War was a leveller, in more ways than one and the Society, for its very survival, was obliged to welcome the average man in the street who could not afford to leave the city during the blitz.

The Manchester Astronomical Society blossomed. Within ten years it had over a hundred members and would go on to command lectures from the highest scientific authorities in the land

The society as we know it today has its membership rooted in this early move to welcome the average man, and is today proud to be a society which welcomes individuals with a range of expertise and knowledge, from the professional to the complete novice.

In terms of its professional element however, the MAS annals contain some significant figures in the astronomical community at large and has enjoyed good connections with some notable public figures. One such example is John H. Hindle who joined in November 1917. He later became vice-president and by the 1930s was internationally recognised as one of the leading optical experts of the time. Hindle built many large reflecting telescopes including a 20.5-inch Newtonian-Cassegrain, of 8 and 30 feet focal length, and a 30-inch Newtonian. Both of these instruments were for his friend, Dr William H. Stevenson, former president of the BAA and Director of the Mars Section. The 30-inch was subsequently mounted at Cambridge University Observatory, by

5 Current Notes: Centenary Edition

arrangement with Sir Arthur Eddington. Hindle is best remembered for the invention of his ovoid-stroke mirror grinding and polishing machine and for multi-point mirror floatation systems designed to support, without flexure, large telescope mirrors. A Hindle mirror-grinding machine is still in use by the Norwich Astronomical Society. Hindle's reputation as a telescope maker encouraged others in the MAS to make their own instruments, a tradition that is still very much alive. The descriptions of John Hindle's work have, for many years, been read by generations of telescope makers on both sides of the Atlantic in Ingalls' famous trilogy, *Amateur Telescope Making*, first published by *The Scientific American*, in 1935.

Another notable figure is Eric Burgess who in October 1935 became a Junior Member of the MAS. A year later, he formed the Manchester Interplanetary Society. As a member of both the fledgling British Interplanetary Society (formed in Liverpool by P.C. Cleator) and the MIS, Eric was Manchester's first 'Rocket Man'. One of the London meeting venues of BIS was the 'Mason's Arms', or 'The Spacehippers' Arms' as the London members came to call it, in Maddox Street. This was the scenario used by Arthur C Clarke in his science fiction anthology 'Tales from the White Hart'.

A breakaway group from the MIS, the Manchester Astronomical Association, led by Burgess, was formed in 1937. It was to play a key role in holding together interest in UK astronautics during the war. As war loomed, all BIS activities were suspended and it remained for Manchester to carry the 'interplanetary torch' throughout the war years during which Burgess printed and distributed a

mimographed journal 'SPACEWARDS' which appeared quarterly. Although he kept in touch with Clarke and Cleator, he had no contact with the other BIS council people until the close of hostilities in Europe. By then Eric had linked with Kenneth Gatland to form the Combined British Astronomical Societies that had about 200 members and a printed journal of the same name. The Manchester Astronomical Association became its northwestern branch.

In October 1945, Arthur C Clarke published his seminal paper describing the potential use of *manned* orbiting space stations to act as 'extra-terrestrial relays' for radio and TV broadcasting. Eric Burgess,

followed this the next year in an article published in the November 1946 edition of *Aeronautics*, proposing to use *automatic* robotic

satellites in geostationary orbits for the same reason and for meteorological and other purposes. Clearly, it is this technology, first suggested by Burgess which best describes modern global telecommunications. Along with Charles A Cross, NAA credits Eric Burgess for the introduction of the term, 'interplanetary probe', first described in a joint paper, 'The Martian Probe'.

Eric Burgess last visited Manchester in 1978 when he addressed the Manchester Astronomical Society at its 75th anniversary meeting. He was then in the UK as science adviser in the making of the James Bond movie, *Moonraker*.

During the latter half of the twentieth century it has to be acknowledged that MAS, like many amateur astronomical societies, can only claim to have made relatively minor contributions to the

WHAT WERE THEY UP TO?

CN continues to be one of the ways in which contributors can share their experiences with fellow members. Not only readers of today, but also generations of future MAS members will benefit from what you have to say.

So come on folks, let's hear of anything you've been doing astronomically.

WE OWE IT TO THE MAS OF THE FUTURE TO GIVE THEM A TASTE OF THE PAST

science in the light of burgeoning professional studies. Nevertheless, individual contributions by its members must be recognised. For example, in 1952, Professor Zdzisław Kopal was elected to the first chair of Astronomy at Manchester University. Kopal was a regular contributor to the MAs and became an honorary member. Other MAs members also went on to make significant contributions to astronomy and the sciences: Prof. Wal Sargent was a student at Manchester University

in the mid 1950's and subsequently, among other things, became director of the Mount Wilson and Palomar Observatories and Ira S Bowen Professor of Astronomy at Caltech. His contemporary, also a former MAs member and now Professor, Leon Lucy, devised the Lucy-Richardson deconvolution algorithm that corrected the initial spherical aberration of the Hubble Space Telescope. In 1969 MAs lunar observers, John Bolton FRAS and Mike Duckworth FRAS, observed transient lunar phenomena (thought to be localised outgassing) in the vicinity of Aristarchus with the Goddard instruments that were apparently confirmed by the crew of Apollo 11. Two years before, in January 1967, Duckworth and Kilburn observed a TLP in Gassendi. Patrick Moore and Terrance Mosley also saw it from Armagh, as did Sartory from southern England. NAS recorded this observation. Nigel Longshaw is now another, internationally respected, MAs lunar observer. In the 1970's, John Rustige and Allan Maudsley were regular contributors to the BAS Solar Section and

individual contributions by its members must be recognised

among the top ten solar observers in the UK. MAs members Rustige and Ken Bispham, were among the first solar observers to make detailed observations of polar faculae. In the 1980's MAs member Dr David Whitehouse later joined NAS before becoming a senior BBC science correspondent and author. Former MAs president, Dr. Peter Mack, became assistant professor of astronomy at the University of Oklahoma and manager of MIT instruments at Kitt Peak before setting up his own business making

research-grade telescopes and instrumentation in Tucson, Arizona. In the closing years of the century, Mike Oates FRAS has become the most prolific comet discoverer to date, with a tally of 142 mini-comets discovered by analysing data from the ESA-NASA SOHO satellite (see his article later in this issue). Mike is also co-discoverer in November 1997, with Tony Cross and the present writer, of Manchester AS's greatest astronomical find, an almost perfect copy of a star atlas, Atlas Celeste, 1786, that should have been published in 1750 as Dr. John Bevis's Uranographia Britannica.

Manchester Astronomical Society is now only one of many dozens of such organisations in the UK, but as it enters its second century, it looks forward to continuing its association with professional bodies in the UK and internationally in the pursuit of knowledge and the enjoyment of space to the benefit of its members and the public.

Notes

ⁱ Porthouse was a lunar observer and had a crater named after him, on Mars Imbrium, in H.P. Wilkins's great 300-inch map of the moon, 1946.

ⁱⁱ *Scientific American*, September 1959.

ⁱⁱⁱ In November 2000, MAs members visited Telescope Technologies Ltd at Birkenhead. Here we were shown three partly completed 2-meter robotic telescopes, the first large instruments to be constructed in the UK since the demise of Grubb-Parsons Ltd in the mid 1980s. We were told that the wide field Riechzy-Chretien optics of these new telescopes are being tested by the same Hindle Null Test devised by John Hindle seventy years ago.

^{iv} A.C. Clarke, 'Extra Terrestrial Relays'. *Wireless World*, October 1945

^v Acknowledged in 1980, at the opening of the Smithsonian Air and Space Museum in Washington, by an exhibit showing his solar-heated, turbine-powered satellite, proposed and described in detail in 1949.

^{vi} E. Burgess, 'The establishment and use of artificial satellites'. *Aeronautics*, September 1949.

^{vii} H.T. Wells, S.H. Whiteley and C.E. Karagheannes. 'The Origins of NAS Names'. NAS SP-4402. 1976

^{viii} E. Burgess, 'The Martian Probe'. *Aeronautics*, November 1952

^{ix} Telegram from NAS to J. Bolton dated 1969, July 19, 23.40. Photocopy in the possession of R.J. Kilburn.

^x NAS Technical Report TR R-277. Chronological Catalog of Reported Lunar Events. July 1968.

^{xi} Kilburn, Pasachoff and Gingerich. The Forgotten Star Atlas. *Journal of the History of Astronomy* Vol 34 part 2. pp125-134. May 2003.

Not so Current, Notes

It was suggested at a recent council meeting that a useful exercise in recognising the work and activities of past membership might be to survey past issues of CN, with the aim of producing a compilation of contributions which both attested to the work and activities of prior members, as well as reflecting the nature of amateur astronomical thought and work at various points in our history. A quick scan through some past issues of the 1960's reveals what MAS members were experiencing, observing, and talking about in years gone by.



Grey skies and more than its fair share of precipitation aside, observations of astronomical wonders were still accessible to the Mancunian amateur astronomer of the 60's...

Aurora Borealis, CN, January 1962

"The display took place on October 28th, and was so actively moving as to defy written record, the sky being filled up with rapidly flickering rays from the N. horizon to the zenith and beyond. The display was of the pulsating type, waves of light passing rapidly from the northern horizon glow to the rays overhead...appearing at a rate of several per second."

Of course, what would the 60's be without manned spaceflight? Here, the then editor of CN reflects on the mission of Apollo 8...

Apollo 8, CN, January 1969

"Many of our members must have watched the historic television programmes over Christmas which showed the six day long voyage of the spacecraft Apollo 8 from the Earth to orbit around the moon and eventual safe return to Earth...In a lecture at the University on January 13th, Professor Kopal...gave some penetrating comments...This was,

he said, the first time in the whole history of mankind that inhabitants of this planet had broken free from its gravitational influence, and subjected themselves to the gravitation of another body in the Solar System. In years to come...this date will be remembered as the start of an era. For, although no actual landing on the Moon was made on this occasion, the voyage proved its eventual certainty."

With Mars having made effectively its closest approach of all time in our centenary year, past musings on the red planet provide interesting reading...

Life on Mars? CN, March 1968

"... some observers have claimed to see green areas spreading from the polar caps with the coming of summer...There is no doubt that a wave of darkening does spread from the poles at that time and proceeds across the Equator to the opposite Pole...It is tempting to believe that it is the response by some organism which is very sensitive to the presence of water...(and that we are) witnessing the seasonal bloomage of Martian vegetation. The ingredients of life are present on Mars... We do not know but... we can say that there is some evidence in favour of life on Mars."

CN, October 1961

"... what of animal life (on Mars)? It is evident from what we have already seen of the physical conditions of Mars, that if there is any animal life at all, it must have evolved along entirely different lines from that on Earth. They must be capable of existing under the extreme cold of Martian night and still colder winter. They would therefore, probably be of the hibernating type, and would be compelled to live underground for the greater part of their existence. To sum up, it is certain that there is some form of plant life on Mars, but there is no evidence to support there being any animal life which could have developed to a higher order."

Here, two rather contrasting views vis-à-vis the role of the amateur astronomer are expressed, one by a MAS member, the other by the now legendary Patrick Moore...

The role of the amateur astronomer, CN, 1966

"I would like, again, to stress the need for continuing lunar work. There is a widespread impression that because the lunar landings are so near, it is a waste of time to study the Moon...Nothing could be further from the truth. Moon study is at present more important than ever before...a reasonably modest telescope is adequate for this sort of research. Much can be done, for instance with, an 8in. reflector. I know that the Manchester Astronomical Society is very active, and the excellent reports sent in by some of your members have already appeared in the BAA journal. At the

moment, I am finishing off a long report on overlapping craters, again using the Manchester results. I do hope you will continue with the research and let us have publication results when available."

Patrick Moore, Director, BAA Lunar Section.

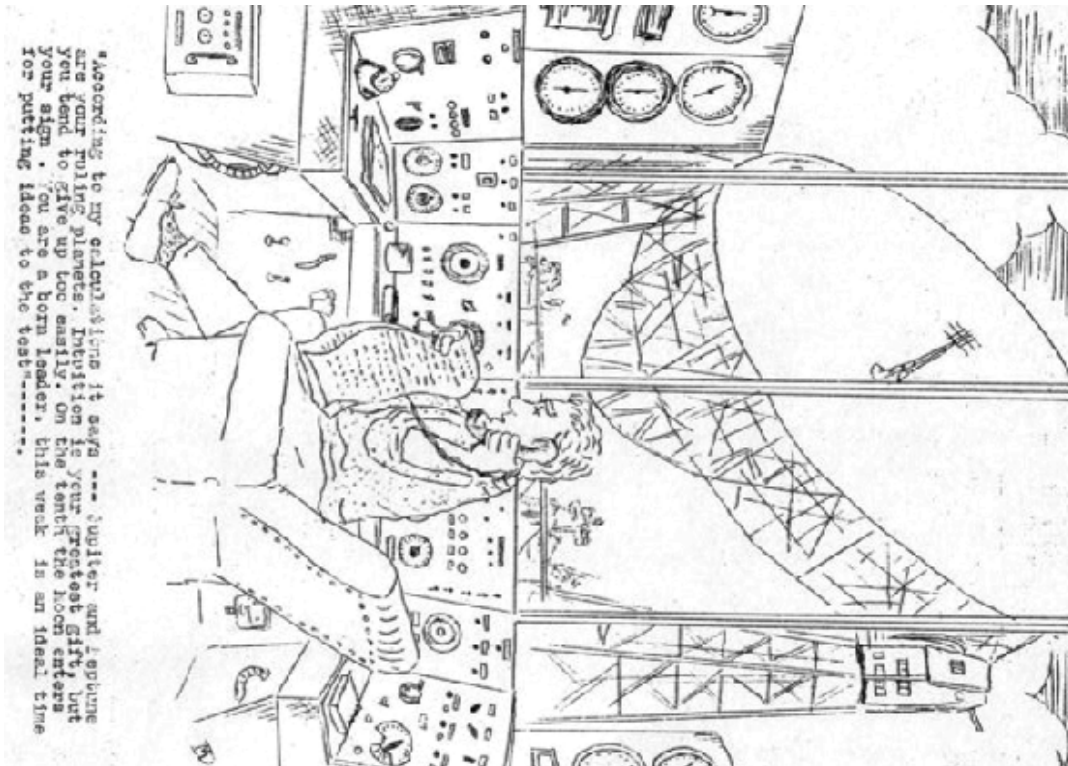
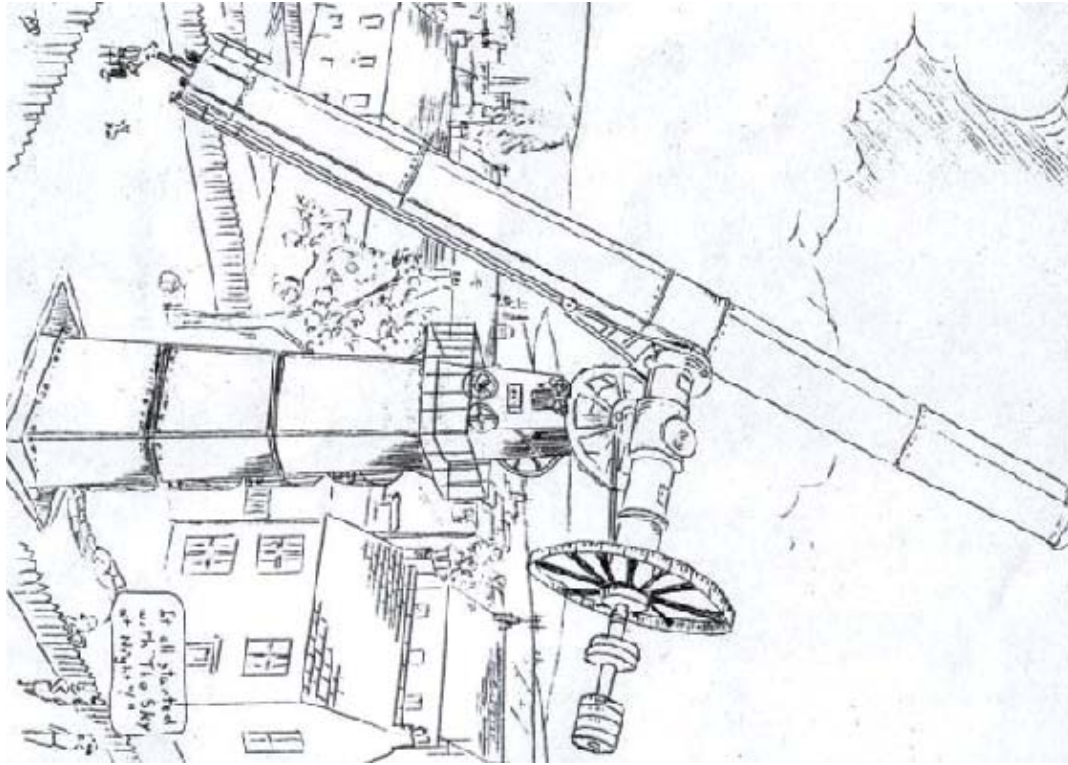
CN, 1964

"Friday, July 31 1964, marks the beginning of a new era in astronomy. At 13 hours 15 minutes U.T. the American spacecraft Ranger 7, switched on its six cameras and commenced taking 4000 photographs of the Moon's surface...For three and a half centuries, amateur astronomers have turned their telescopes on the Moon. They have carefully drawn its craters, clefts, domes, and ridges (and)... plotted the distribution and alignment of riles and crater chains. The impact of Ranger 7...constitutes a mortal blow to telescope observation of the Moon. Our telescopes have become as redundant as the crystal set...We have only to look a few years ahead and similar craft will be taking close up pictures of the planets, telescopic drawings of Mars or Jupiter will amount to nothing more than caricatures, our telescopes will be nothing more than a peepshow. There will be no purpose in owning a telescope, and yet I wouldn't mind betting that even in 1990 the Manchester Astronomical Society will still have its mirror makers...they will build their telescopes just for the fun of it. For to them the era of observational astronomy will be nothing more than history."

CN DATES BACK to around the Second World War and is an important historical archive for our society. Would any members like to commit some of their time to archiving past issues? If so, please contact the editor.

MAS members' humour, CN 1960's

And finally... even amateur astronomers have a sense of humour – it's part of what makes the hobby and us human. Here are a couple of examples of Astro-humour that appeared in the swinging astronomical sixties issues...



"According to my calculations it says --- Jupiter and Saturn are your ruling planets. Mercury is your greatest gift, but you tend to give up too easily. On the tenth the moon enters your sign. You are a born leader, this week is an ideal time for putting ideas to the test".....

2. THE MAS - AD 2003

A Year in Review

As noted by our President in his opening comments (see p. 2), we have seen a variety of events this year to mark our centenary, as well as some to recognise the historic approach of Mars. Here, members give accounts of some of these events from their own personal perspectives

Astronomical Convention held at Sacha's Hotel

Saturday 30th August

This event was organised by the MAS as part of the centenary celebrations. Having used the hotel before for similar events, it was no surprise to see publicity officer Tony Cross running busily around, helping to arrange the trade stands. The Widescreen Centre, Nottingham; Aurora Books, The Society for the History of Astronomy and Arthur Gilbert, Astronomical Artist, were in attendance at the convention.

The first lecture commenced at 10am, with a talk by the President of the Society for the History of Astronomy. The president provided a detailed look at how all of the UK astronomy societies have a large role to play in collation of new astronomical information, large and small. All of the lectures were of the usual high standards which we have come to expect at these events. Rounding off the days proceedings was Professor Alan Chapman with an excellent talk on Astronomy in the North West from 1639 to 2003.

Attendance at the convention was reasonable given the time of year and the fact that there were several similar astronomy events on elsewhere as it was National Astronomy Week. Whilst I was there I even took the opportunity to purchase a 5mm Plossls eyepiece and a painting from Arthur Gilbert of Jupiter looking from Callisto!

All in all a great day, and one to remember as part of our centenary celebrations.

COLIN HARRISON

Birthday Buffet

The exact 100th anniversary of the founding of the Manchester Astronomical Society happened to fall on a Thursday so it seemed right to have some celebration of the day itself in the octagon room of the Godlee Observatory instead of a normal meeting. As we had the Centenary Astroday in August and the Umist Centenary Dinner, both events involving non-members, this occasion was for members only to celebrate the achievement of ourselves and former members in keeping the society going for a hundred years. The oldest member present, Dame Kathleen Ollerenshaw, at 91 years of age was not quite alive at the founding of the society.

A buffet was laid on by one of the members with wine and we had a birthday cake. One member even dressed in the costume of 1903 to mark the occasion.

Notable astro photographs taken over the years by members were displayed informally as we ate and drank and the President said a few words before we sang Happy Birthday to the society.

Janet Maresh



President Graham Hodson and Treasurer Janet Maresh (in period costume) cut the 100th birthday cake.

The BBC All-Night Star Party

ROB PHILBURN

THERE'S ALWAYS SOMETHING MAGICAL about first sighting the Lovell telescope as you drive towards Jodrell Bank. It's a bit like the adults' version of spotting Blackpool Tower, rising up above the tree line as if to mark some enchanted place. As fellow MAS member Dave Oliver and I approached Jodrell one evening in August this year, I had the same feeling. We were both on our way to attend the BBC All Night Star-Party, a live broadcast aimed to coincide with Mars' closest approach for 60,000 years, an event so significant as to warrant a dedicated show on national TV.

The hardware, manpower, and organisation necessary to achieve this as flawlessly as possible was all too apparent as we walked from the car, stepping gingerly over the conga like procession of cables that ordained the perimeter of the main building. Once inside, we were greeted by a mixture of well-behaved amateur astronomers from societies in the North-West region and beyond, and TV professionals, equally attempting to accommodate to the needs and expectations of the 'other' by glossing their frantic work activities with an almost childlike glee at being there for an event of astronomical proportions. We soon sighted fellow members, Colin Harrison, Graham Hodson, and were shortly thereafter by Sotira Trifourki and Dave Baker. This would constitute our MAS contingent at the Star-Party - small but perfectly formed.

We were pleasantly surprised to see that the BBC catering department had laid on a buffet, with hot and cold food and various beverages. It quickly became apparent that these served the dual purpose of sociable lubricants, helping guests to loosen up a little, and party props, conveying to the viewers at home that this was indeed a party (and perhaps that amateur astronomers do have fun). Armed with grilled chicken and liquid refreshment, we took our seats outside, sat down in the shadow of the imposing Lovell, and took in the atmosphere. The sight of so many enthusiasts of such a mixed age range and gender was testimony in itself that today amateur astronomy really does welcome the common man, and woman.

As the moment of live broadcast neared, the message came down the grapevine that 'Patrick Moore had entered the building'. Purely coincidental I'm sure, but this cosmic arrival in itself seemed to be the catalyst for countdown to going on air. Lots of movement of floor managers, cameras, and guests (strategically positioning themselves to be in shot, yet working hard to appear to be disinterested in 15 seconds of fame) was followed by a hushed silence. The raised hand of a BBC floor manager held the gaze of all as it reduced in fingers from five, through four, to a digit-less clenched fist, marking the point at which we were on air.

During the broadcast, we were able to view what the public were watching on large monitors. This proved to be amusing if we caught a glimpse of ourselves. As the broadcast wore on



The MAS All-nighters. (L-R): Dave Baker, Sotira Trifourki, Graham Hodson, Colin Harrison. Rob Philburn. and Dave Oliver.

however, the party resumed, and we had the chance to meet and chat to a variety of members from other local societies. Graham Hodson and I also had the opportunity to speak with Sir Patrick Moore who was, as ever, accommodating and unassuming. The usual photo opportunity was also seized upon as our group stood proud in front of the Lovell - one for the web-site.

As quickly as it had started, we were off-air. However, the party continued until the small wee hours, at which point, after concluding that the evening had been successful and enjoyable, we set off home. All that was left was to replay the video at home.

And...cut.

Centenary Dinner for members of MAS and guests Friday 3rd October

I arrived at the Barnes Wallis building with fellow member Robert Fletcher, to be greeted by other members Dennis Jones and Dave Oliver. Eventually, around 26 of us sat down to enjoy some excellent food and drink. The evening really was a culinary treat, with a good selection of courses for all palettes and plenty of wine flowing! Those of us who attended had a great evening, and those who couldn't make it really missed out.

COLIN HARRISON



~ 2003 ~
Happy Birthday MAS!



(Left) Some of the current membership gathers for a birthday "piccy" at the Godlee birthday buffet.



(Above) Tony and Anne Cross admire the 100th birthday cake, together with "cook" Janet

(Below) Howard Davidson, Bob Parkinson, and Professor Tom Millar enjoy a glass of wine at the Centenary dinner.



(Above) Janet Maresh, Dame Kathleen Ollerenshaw, and past President Kevin Kilburn in the swing of things at the Godlee birthday buffet.



(Left) Publicity Officer Tony Cross shares a thought or two with fellow members during the birthday buffet in the Godlee.

Members' profiles: Some of the people who make up the society AD 2003

**Dame Kathleen
Ollerenshaw**



**How long have you been an
MAS member?**

15 years (only!).

**How would you describe yourself
'astronomically'?**

Professional mathematician; amateur astronomer.

How were you first introduced to astronomy?

Suddenly, when already aged 80, and recently widowed. I found I had the time to follow an interest never possible before.

**How has your membership of the MAS
benefited you?**

Given me a whole mass of new friends and a whole load of irresistible new reading, especially of the interplay of mathematics and astronomy throughout history.

Why do you personally like astronomy?

How could any mathematician NOT be fascinated by the stars?

What are your predictions for the future?

More and more space travel and better understanding of the universe and our own minute role in it.

**What are some of your memorable experiences
whilst part of the MAS?**

Having my own telescope and seeing for first time Saturn's rings; watching the Galilean moons change position each night; seeing the Andromeda galaxy for the first time in the company of Kevin Kilburn and Alan Chapman (and celebrating with a bottle of champagne); observing shooting stars with other MAS members; witnessing solar and lunar eclipses; my first ventures at taking CCD images and targeting the magic Messier objects; and seeing Hale Bopp from my own kitchen window whilst washing up. MARVELOUS!

Janet Maresh



**How long have you been
an MAS member?**

5 years.

**How would you describe yourself
'astronomically'?**

Amateur observer who regrets not taking up the hobby 40 years ago when she would have retained the knowledge more easily.

How were you first introduced to astronomy?

Over my life whenever I have been confronted by a beautiful night sky I have wondered and wished I knew more about what was up there. About 17 years ago I started to do something about it by teaching myself the constellations and naked eye objects from the garden.

**How has your membership of the MAS
benefited you?**

I found out immediately that there was more to amateur astronomy than I ever dreamed

when I was just doing naked eye observing by myself. The expertise and knowledge of so many members has gone on to supply me with never ending food for thought and activity. I have also met such a varied mixture of friendly interesting people from all walks of life brought together by a common interest that I don't think I could have met in any other way.

Current interests and activities

I was introduced to deep sky objects when I joined the society and became fascinated. My ambition is to be able to locate and observe in a telescope all the Messier and Caldwell objects. At the moment the fun for me is finding the objects by myself not using computer location. Eventually I would like to be able to find all those objects visible from home quickly and without need for reference but I fear that my memory is getting so bad that this may already be a pipe dream. I also dabble in astrophotography very inexpertly.

Why do you personally like astronomy?

"We are all in the gutter but some of us are looking at the stars". I just love being out there on a clear night. It makes me feel part of the universe but heightens also my awareness of the earth as a planet and the people on it like a ship in space. A much better way of appreciating the common lot of us mortals than listening to reports of the latest outbreak of unrest somewhere in the world.

What are your predictions for the future?

Being pessimistic, more and more light pollution until we no longer have the friendly

night to wonder at. In my optimistic moments I hope for light curfews when all artificial lights are extinguished for a couple of hours in the small hours of the morning.

What are some of your memorable experiences whilst part of the MAS?

The first sight of Saturn and Jupiter through a telescope borrowed from the Society. Counting meteors from a field near Wetherby with other members at the tail end of a Leonid meteor shower which we had chased by driving up from Manchester to catch the clear skies which were pushing down from the north.

Colin
Harrison



How long have you been an MAS member?

I have been a member of MAS for about 20 years.

How did you first become interested in astronomy?

I have always had an interest from a very early age, at 15yrs old I bought a CHARLES FRANK 4inch REFLECTOR to assemble myself, and I used to enjoy reading any magazines or books on Astronomy. Years later I joined a local night school class on ASTRONOMY and one of the members was a member of the MAS and invited me to attend a lecture and then a meeting and look around the observatory which I enjoyed very much. I have been attending meetings for about 20yrs now!

What are your main interests and current activities?

My main interests are observing and making parts for telescopes and grinding mirrors. I also enjoy a range of other interests, from looking at different worldwide sites on Astronomy, to just looking at the stars and planets through my own telescope, and imaging them with a web cam onto a computer screen. Recently I have enjoyed observing the moon, Mars and the ever-increasing solar sunspots.

What does the hobby mean for you personally?

It is a very interesting and rewarding hobby as new things are being discovered all the time and new technology like the Hubble Space Telescope gives the average amateur detailed information on the whole universe.

How has your membership of the MAS benefited you personally?

It is a good opportunity to enjoy an interesting hobby and be able to learn more from discussions with other like minded people and also to enjoy lectures on different aspects of Astronomy. Being a member of the MAS is a very important part of my life and I enjoy meeting fellow amateur astronomers and look forward with interest to future developments within the society.

Do you have any predictions for the future?

Hopefully, the problem of light pollution, which ruins observations of the night sky, will be sympathetically looked at by the new government report. I also hope that councils will install the new full cut off streetlights, which will be of great benefit to all.



15 Current Notes: Centenary Edition

Dr. Mukti N.
Bhattacharyya



How long have you been an MAS member?
20 years.

How did you first get into astronomy?
I got into MAS from a newspaper article.

How would you describe yourself
'astronomically'?
Astronomically I am an amateur enthusiast.

Do you have any particular interests?
My interest is Total Solar Eclipses.

How has your membership of the MAS
benefited you?

Fellowship and friendship with like minded people. The MAS is a wonderful organisation and I hope it goes from strength to strength.

What about your personal learning?

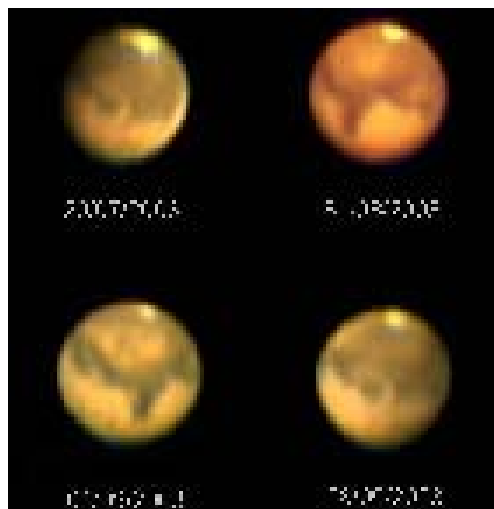
Astronomy taught me how insignificant we are.

Do you have any predictions for the future?

My prediction is that life in some form will be found elsewhere apart from our own earth.

Faces of Mars, AD 2003

At this point in our history, technology has provided us with an affordable way to digitally image the planets and deep sky objects. Here are two images taken this year by members using inexpensive web cams to capture Mars on its historic approach.



Cliff Meredith (Prestwich).



Rob Philburn (Denton).

Cliff and I used similar equipment and techniques for taking these images of Mars. A Philips ToUcam Pro webcam was used to first take short recordings of the planet. These videos were then broken down into individual frames, the best ones being stacked using special software (K3CCD tools). Images were then variously processed in Adobe Photoshop and Paint Shop Pro. Ten years ago, such images would have required an expensive array of equipment. Today they can be taken with an imaging device costing around £60.00.

Scotch Mist and Rings of Fire

ROB PHILBURN

DRIVING ON A RETURN TRIP FROM MANCHESTER to the Highlands of Scotland in under three days is not something you do that often. Hence my close monitoring of the weather forecast on the afternoon of 29th May 2003 before making the decision to drive northwards to see the annular eclipse. Fortunately, the forecast was good - high pressure moving in and expected to last. That afternoon, myself and my wife Elke hit the M60 motorway and set off for the Inverness area, overnight-ing in Glasgow. Friday in Inverness was like any other, with people doing their shopping, and strolling around. A strange bunch was clustered in the tourist information office however - not locals. As we approached the counter, it was clear we had found our temporary herd, as successive amateur astronomers asked where the best place to see the eclipse from would be. It was a good job we went in, as the guide behind the desk seemed happy to tip people off that far north it would be cloudy, whilst across the water at Cromarty, the clever folk would be gathering. So it was that late that evening we set off. The intention was to get forty winks in the car, then, wake up and view the eclipse. Arriving at the top of a hillock overlooking the sea, we parked up (next to other in car folk), set the alarm watches, and tried to get some rest. One unanticipated experience was the brightness of the sky at night. It did not really get dark all night but never the less we dozed off. "THERE'S A STARMAN..." , I knew

the David Bowie song, and it was this that awakened us and marked the arrival of the more eclectic viewers. Stretching our legs out of the car, we realised that the handful of cars the night before was now a proper rally, with all sorts of vehicles cramming themselves onto the hill top.



The Sun at annularity, hugging the north-east horizon at Cromarty, Scotland (photographed by the author).

It was now around 4:15, and everyone was staring at a wall of mist, Scotch mist, that obscured any sign of sea or land at all. 4:40, and a mother with her child next to us asked when 'it' would be happening. "Around about now" I replied, trying to sound stoical but really feeling quite deflated. Then, all of a sudden, the mist broke to reveal the disk of the Sun seconds before annularity. It was, as they say, clear as a bell for the next two minutes, as the lunar disk moved slowly across from right to left, giving everyone on Cromarty's hilltop the treat they had travelled to see and desperately hoped for. The thought struck my mind, "there is a God!". Perhaps it takes moments like these to engender such thoughts.

3. LOOKING FORWARD

Making Astronomical Discoveries: Comet-ment as a Case in Point



MIKE OATES

THERE IS NOW A WHOLE NEW WAY THAT AMATEUR ASTRONOMERS CAN MAKE ASTRONOMICAL DISCOVERIES and they don't even need a telescope. With the advent of the Internet and readily available observations from professional observatories, the amateur can make serious contributions to scientific discovery and knowledge.

In 2000 I started to examine images taken by the SOLar and Heliospheric Observatory (SOHO) spacecraft, a joint project by NASA and ESA. These images are made available on the internet within minutes of being transmitted by SOHO. This allows both professional and amateurs alike to examine the images at the same time. All the images are archived and even these are made available. It is by examining these archive and real-time images that I have been able to discover 143 comets, a staggering number, more than anyone else in history. Another amateur, Sebastian

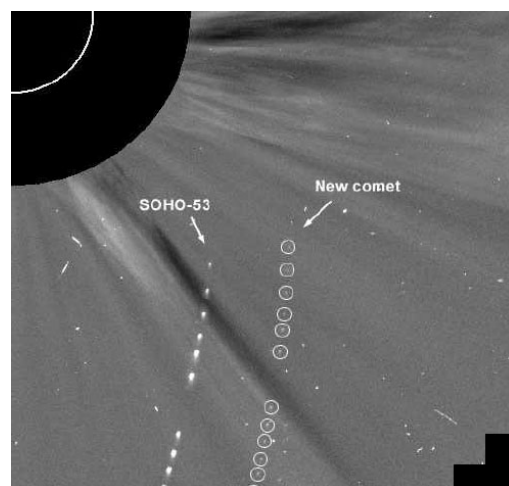
I have been able to discover 143 comets, a staggering number, more than anyone else in history... Clearly there is huge scope for any amateur to make such discoveries

Hönig, who started searching the SOHO images at about the same time has discovered over 33 comets. Sebastian also managed to discover a comet visually - C/2002 O4 (Hönig). Sebastian then looked for other images that are available on the Internet to make further discoveries with, came across NASA's Near-Earth

Asteroid Tracking System (NEAT), and proceeded to discover over 250 asteroids on images that are examined by the professionals using automated detection software!

Clearly there is huge scope for any amateur to make such discoveries. All that is needed is a computer connected to the Internet, the software to process images, images from observatories of course and if looking for asteroids, knowledge of orbital calculations. I should mention that time and dedication will be required as many hours need to be spent at the computer. It is being done now with great success and there could be many more discoveries just waiting to be made.

THE NEXT COMET, ASTEROID, NOVA, OR SUPERNOVA COULD BE YOURS!



**The 'Sister Comets'
SOHO 143 (right)
Discovered by Mike Oates, 17/06/00**

The Next One Hundred Years in Space

ROBERT FLETCHER

At this time of the Centenary of the Manchester Astronomical Society, marking our one hundred years, it may be a good time to take stock and see what the future may hold for space exploration. We have seen great things in the last few years; the first close up pictures of the Moon and planets, and the first Moon landing on 20th July 1969, when astronaut Neil Armstrong said those words which will live on as long as civilisation lasts "that's one small step for a man, one giant leap for mankind". Later there were the first temporary space stations, first Russian then the US Skylab, the first docking in 1975 between a US Apollo and Russian Soyuz spacecraft, and later the technical advances of the Russian Mir space station. Also we had the first unmanned landings on Mars in 1976 and the exploration of Venus and the other planets apart from Pluto by remote probes.

It is not always easy to speculate on what the future may hold, for example it would have been possible to land astronauts on Mars by 1981, if enough funding had been given, and the political will had been there. So I will tend to view the future on the side of caution. Of course we may be surprised if the political will and drive is found to go to Mars and to do other projects that are possible but considered too expensive. There has to be a reason first for such steps. In the 1960's it was the race to the Moon; to be the first to reach it, and to prove

At this time of the Centenary of the Manchester Astronomical Society, marking our one hundred years, it may be a good time to take stock and see what the future may hold for space exploration.

It is not always easy to speculate on what the future may hold...

technological superiority. After the race was won interest waned. We should have had Apollo missions up to number 20, but they were stopped at number 17.

So now let us turn to the future. First the Space Shuttle system will have to be replaced by about 2020. In the meantime and after the Columbia accident, there is great interest in developing an Orbital Space Plane, which would be launched on top of a Delta 4 heavy lift rocket. In fact this rocket and the Atlas 5 have already flown in the single core stage configuration. The heavy lift version includes two more first stages strapped to the central core stage. The Orbital Space Plane will carry a crew of 4 and will supplement the Space Shuttle System, which may be used mostly to take cargo up. It is hoped that the

Space Plane will be able to reach geostationary orbit, where most large communications satellites are. As these satellites get bigger, and more expensive, they will need to be serviced, at present the Space Shuttle can only reach low earth orbit, it can not go to geostationary orbit, where satellites appear to stand still, over the same place as seen from Earth. While we are looking at Earth orbit, I forecast that China will begin putting astronauts into space later this year, probably two at first. They also have plans for a smaller version of

Skylab and a Mir class space station. They will have the ability to dock with the international space station, which it is hoped that they may be invited to join. Looking further it has been suggested that China would be interested in manned lunar flight and possibly a joint mission to Mars as early as 2020, maybe with the Russians? The

19 Current Notes: Centenary Edition

ISS space station will be completed, and I would like to see a return to the Moon. There are many reasons for going back. To list a few, the Moon has a lot of raw materials; a radio telescope on the far side would be shielded from transmissions from Earth. An observatory on the Moon could look across the entire spectrum and cover more sky from such a stable platform. If there is indeed water at the Moon's poles than this will help the establishment of a base and help to make rocket fuel on the Moon. The Moon could be used as a staging post to the planets and beyond. In fact it would be easier from a thermal point of view to establish a Lunar Base at the South Pole, where the Sun never rises far from the horizon, so temperature extremes are less than at the equator.

The next target must surely be Mars. This could be done as early as 2020 if the political will exists to do it. If the US does not, then it is possible China in conjunction with other countries might. The journey will be long and contains many risks. If we use chemical rockets, the round trip could take 3 years, and there is the question of radiation exposure on such a long trip. If there is a Solar Flare you can not come straight back like you could going to the Moon, so a radiation shelter will have to be included. If the radiation dose is acceptable, then the journey could be done from a technological point of view. Why go to Mars? Well it will increase our technological capability, there is the question that microbes could exist beneath the surface, which if discovered would prove that life is not confined to the Earth. A colony there would increase

the chances of survival of the human race against a large meteor impact or other global mishap.

During this time-period Pluto will have had its first visit from a robot probe. After about 2050 I think we will be able to send unmanned probes to the nearest stars, using solar sails. This will cut the journey time down from something like 70,000 years by today's speeds, to just decades. Already there are tentative plans to send a probe to Alpha Centauri system, which would reach this star system in 40 years, a considerable improvement!

However by the end of this century I doubt that we will be able to send people to the stars. Robot probes yes, but I think it will be a very long time before we can send people to the

A Solar Sail unfurls over Earth



stars. That is not to say that one day it will not be done. In the meantime we can look forward to a possible return to the Moon, a journey to Mars, a robot orbiter for Jupiter's Moon Europa, and a visit to Pluto by a robot probe and eventually solar sails to the nearer stars.

Robert – a.k.a 'Mr NASA' – gives regular updates on a range of space travel issues throughout the season

Involution / Evolution: A Possible Future Type of Astronomer

GUY DUCKWORTH

One thing is probable in the Aquarian age: The inexorable advance of technology to produce such wonders that if it were possible, they would deceive the very elect. The population of other planets, machines travelling faster than light, holograms indistinguishable from the real thing, and inter-galactic travel. The science fiction writers of today are surely writing the stuff of future memory – the history of the future of the universe.

But this planned advance is likely to be without regard to the evolution of individual human beings. As long as Herodian power representatives and their army of mercenary villains are given licence to hold sway over the world at large, some form of enslavement of the general population will occur. Workers to produce these marvellous machines will be required. They will be kept as usual in a state of relative ignorance by their masters, appetitive monsters living a life of luxury, whilst the slaves operate the Moloch machine down below, even proud that they have been grown in test tubes as alphas, betas, gammas, and deltas.

Yet this need not be so. Historically, some people have managed to arrest this externalising intent, turn the energies of progress back on themselves, reflect internally on their origin and evolve in amazing ways, without the need of external apparatus other than their physical bodies, which act as a reference point. They have "involved" in order to "evolve".

I cite one from history who had, amongst other abilities, the power of teleportation. Jetsün Milarepa was arguably Tibet's greatest yogi and lived in the latter half of the eleventh century. He is one of the finest examples historically of just what a marvellous creation the human being really is and what can be achieved. Indeed, if the full potential of the states which Milarepa, and others like him have achieved was fully realised, the effort of the whole of humanity would at once be directed towards their attainment. If one can space travel in this manner, potentially we all can.

So, where do astronomers fit in? As compared with "the man in the street", we potentially have an advantage: The possibility of an expanded mind full of wonderment (and therefore more open to the higher harmonics), caused by the observation of Space initially, which for all intents and purposes, is infinite. This combination can give rise to the will to discover the real nature of *all*: Space, consciousness and power. Man's task is to measure the entire universe. This process can be accelerated for the individual, if the study first



A golden eagle: The curve of the golden beak has long been a symbol of the bending back of the will.

becomes an internal one.

There are far greater universes yet to be discovered by the astronomer who reflects and observes the higher harmonics within his or her mind, rather than just the external universe, which is nothing but a construct of our five finite senses. The Aquarian age will give us a choice: a servant of technology or a master of our own minds. (In the latter state, you can of course have a technological trade too).

The possession of an intellect, which enables us to choose to move towards this reflexive self-consciousness, the bending back of the will to its source, is the one and only thing that differentiates us from the animals. But like all highly valuable goals, its attainment requires much hard work. Scientists who try to convince us that we are merely machines incapable of such involution are either ignorant, faithless or lying government toadies. The journey into Space could, for some, be far more wonderful than even the science fiction writers have yet imagined.

Members' Notices

MAS CD: A further call for assistance

Dear Members / visitors,

As mentioned in the last issue of CN, I am currently creating a CD ROM for the Manchester Astronomy Society (with your help). To reiterate, the aims of the CD are:

1. To provide new members and current members with reference material
2. Include members' photographs, CCD's, articles, drawings, and PowerPoint presentations of Astronomical material
3. Promotion of MAS

The CD will include

The Messier Index (Complete)
Guide to Constellations (All 88 including Mythology)
Our Solar System (All Planets & Moons)
The Best of NGC
Guide to comet hunting (Mike Oates is doing this)
Guide to using your telescope
Past newsletters of MAS

If you would like to contribute to this project please can you send material to astro@hulme-grammar.oldham.sch.uk. Alternatively you can give articles to me at the meetings.

We can scan slides and photos at the society so you can take your picture straight home.

I will also need members help with proof reading and checking links on the CD (a PC at home will be required to do this)

The aim is to complete the CD in time for the next AGM, April 2004.

Thanks again,
Anthony Jennings.

Book Your Place in History: A Word on the MAS Library

DENNIS JONES F.R.A.S (Society Librarian)

The Library contains a comprehensive selection of books slides and videos that can be borrowed free of charge to paid up members. Some of the videos consist of observational videos on how to observe the Sun by Eric Strake of the Liverpool Astronomical Society. Eric was one of the main solar observers in the country. Other videos cover the history of Astronomy by Dr Allan Chapman: John Herschel, James Naismyth, Nicholas Copernicus and the History of Cosmology to name but a few. If you are amongst those who find History to be boring, once you have watched one of his videos you will be queuing up at the M.A.S. library in anticipation for the next one, as he brings the people to life and one can visualise what it was like to live in such times.

Amongst the New Additions to the books are: the Iron Sun by Adrian Berry, the Universe Life, The Amateur Astronomer, The Modern Amateur Astronomer, and The Third Planet.

Some good introductory books are, The Third Planet, The Cosmos, The Visible Universe, The Sun, and Galaxies. Again, these are just a few examples as to what the M.A.S. library can offer. It is a wonderful resource and I would encourage all members to familiarise themselves with our current holdings.

Manchester Astronomical Society

Remaining Public Lectures, 2003-2004

(All lectures, with the exception of those indicated, will be held in Room F14 of the Renold Building, UMIST, Sackville Street, Manchester, commencing at 7.30pm)

January 22nd 2004

(Please note, this meeting will be held in Room H11)

Dr Andy Newsam (Liverpool John Moores University)

"The Faulkes Telescope Project and the National Schools' Observatory"

February 19th 2004

Dr Barbara J. I. Bromage (Centre For Astrophysics, University of Central Lancashire)

"The Active Sun and Aurora"

March 18th 2004

The Zdenek Kopal Memorial Lecture

Professor John Meaburn (Manchester University)

"Micro to Mega Jets"

April 2004

Annual General Meeting

(Held in the Godlee Observatory, Main Building, UMIST)

These lectures are free of charge and membership of the society is not required. Free secure parking is usually available, with permission from the UMIST security staff, which can also provide directions to the respective venues upon enquiry at the Sackville Street, UMIST security lodge.

Your views

As a society, by definition, we have a considerable number of members, each with their own experiences, expectations, and aspirations in their pursuit of Astronomy. As a result, the society strives to provide as wide a range of support and encouragement as possible to meet these varied needs, hoping to cater for everyone, from the occasional observer to the more advanced enthusiast. As editor, I have in this issue of Current Notes, once again attempted to reflect this accommodative ethos. However, if there were any suggestions for improvement for future issues, comments from all members of the society would be most welcome.

RP (Editor)

Get online and start talking astronomy!



Accessible through the Members' website or directly at:

<http://www.manastro.co.uk/forum/>

Officers and Council, 2003-2004

President

Graham Hodson, F.R.A.S.
Email: president@manastro.co.uk

Past President

Guy D. Duckworth, B.Sc. (Hons), F.R.A.S.
Email: guy@gdduckworth.free-online.co.uk

Vice-President

John K. Bolton. F.R.A.S.

Secretary

Sotira Trifourki.
Email: sotiratrifourki@hotmail.com
Godlee Observatory, Floor G, Main Building,
UMIST Sackville Street, Manchester. M60 1QD
Tel: 0161 795 5659
Answerphone (24 hrs): 0161 200 4977
Fax: 0161 228 7040

Treasurer

Mrs. Janet Maresh. B.Sc., M.Sc.
Email: janet@maresh.co.uk

Publicity Officer

Tony W. Cross.
Tel: 0161 202 2940
Email: tonywcross@hotmail.com

Other Council Members

Mark Adamson
Robert Fletcher.
Michael Oates. PgC., F.R.A.S.
Bob Parkinson.

Other Posts...

Librarian & Curator of Slides

D.K. Jones F.R.A.S. Email:
KEITH1mas@aol.com

Editor of Current Notes

Rob Philburn. BA.(Hons), MSc., PhD
currentnotes@manastro.co.uk

Contributions to Current Notes

MANY THANKS, to all the members that have contributed to this issue of Current Notes. Apologies to those, that for one reason or another, might not be included in this issue. Contributions are welcomed from all members of the society, and can cover any area of Astronomy, from beginner's initial experiences, to more advanced and specialised aspects. Remember, this is your forum for letting other members know who you are and what you're up to.

Distribution of Current Notes

Current Notes is available in two formats: Paper copy and website version. The paper copies are made available to members at Thursday evening meetings (either in the Godlee or at the Renold lectures). Paper copies are also mailed free of charge to members unable to attend the meetings. The website version is a digitised version of the paper copy and can be accessed via the 'Member's Section' on the Society's website.

Guidelines for Submissions

Please submit a copy of any contribution on floppy disc or as e-mail attachment to: currentnotes@manastro.co.uk in either MS Word format, or as plain text file. If possible, please also submit a hard (printed) copy. Hand-written or typed contributions are also welcome, although to limit the editorial workload, these should ideally be kept short in length. Finally, any data submissions (e.g. statistics; observations; measurements) should be submitted either in a suitable digitised format (e.g. Excel spreadsheet; completed graphs) or with clear instructions as to how the data should be presented in the CN. If in doubt, please contact the editor.

Manchester Astronomical Society
Godlee Observatory
Floor G, Main Building, UMIST
Sackville Street
Manchester
M60 1QD