

CANOPUS

The Astronomical Society of Southern Africa

Johannesburg Centre

Monthly Newsletter for July 2004



**The Sir Herbert Baker Library, 18a Gill Street, Observatory, Johannesburg
P.O.Box 412323, Craighall, 2024**

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Cover photo: Venus Transit near 3rd contact by Kevin Pearce

Editorial

The Venus transit was a sight to behold. Your editor did some pretty serious cursing between about 06:00 and 07:30 on the 8th of June just past. Ed Finlay's story of that luckless French Astronomer came to mind until the clouds at last began to make spaces - after that it was a breeze (if you'll excuse the weather pun!). We have a short piece and an image covering the occasion.

After its once-in-a-lifetime photo opportunity, Venus is now rapidly rising in our morning sky while its old mythological companions head downwards in the evening sky. Venus is very bright at present and cannot be missed. Jupiter is still well placed and fairly luminous in the early evening though its ringed partner Saturn, while still easy to view, is now much smaller, lower down in the sky and less bright.

Burt Rutan and his partners have done it!!!

SpaceShipOne became the very first non-governmental spacecraft to make it into space and safely return to Earth. South African born Test pilot Mike Melville took the spacecraft up to 100 kilometres and returned after a flight lasting about 90 minutes. This all on a "shoestring" budget. It looks like space flight for ALL is just on the horizon - and now there have been two South Africans in Space - not bad for a country which doesn't even have a proper space program.

Our Chairman **Dave Gordon** chats about his sojourn in the Southern United States where he went on the hunt for interesting observatories, craters and canyons, while **Brian Fraser**, as always, provides the items of overhead interest over the next two months as well as submitting an erudite poem for your enjoyment. We also hear of a most generous donation to the Jo'burg Centre by **Eben van Zyl**.

This issue is essentially in preparation for our **AGM** on the 14th July and contains, amongst other items, a loose insert with the voting form for next year's committee as well as an annual subscription renewal form. We ask that when renewing your subs, you please supply updated personal information, especially your email address so that we may always keep you appraised of the latest Astronomical Society happenings.

The Editor

chris@penberthy.co.za

Notice of Annual General Meeting

The Monthly Meeting of the Johannesburg Centre of the Astronomical Society will be held in the Sir Herbert Baker Library, 18a Gill Street, Observatory, on Wednesday, 14th of July, 2004 at 20:00.

Annual General Meeting

and watch: **The Planets**

Beginners Class

Starts at 19:00 on the same evening as the Monthly Meeting

Topic: **Coordinate Systems in Astronomy.**

By: **Jerome Jooste**

Call **Jerome** on 072 447 2588 or 011 465 3402 or email me on jjooste@mgee.co.za or ena@mgee.co.za for info concerning the beginners class.

Telescope Making Classes

Would you like to make your own telescope?...or finish off a partially completed one? Well here's your opportunity. Join the Telescope Making Class being held under the guidance of Brian, Vince and Chris.

Contact Chris on (011) 763-3301 or email cstewart@alcatel.altech.co.za if you are interested.

ASSA Lists

ASSA Jo'burg Centre:- To subscribe to the new ASSA announce list, send a blank mail to:
assajhb_subscribe@yahoogroups.com.

You will receive instructions by return mail. ASSA Jo'burg centre members are strongly advised to subscribe to this list to receive late-breaking announcements (e.g. venue changes for meetings).

Amateur Telescope Making:- assaatm_subscribe@yahoogroups.com

Imaging:- assaimaging_subscribe@yahoogroups.com

and finally, a periodic digest of general news relating to astronomy and space exploration
Zastro_subscribe@yahoogroups.com

Public Viewing (weather permitting)

Public viewing nights are held subject to suitable weather conditions on the Friday nearest First Quarter, and are held at the Old Republic Observatory, 18a Gill Street, Observatory, Johannesburg. Starting time around 19:30. See the ASSA event calendar for the proposed viewing dates. Please check with **Constant** on 717-1397 or email- tabbie@icon.co.za to ensure that viewing IS taking place on the specified evening.

ASSA Jo'burg Centre - Calendar of Events

Month	Day/ Date	Event	Details
Jul	Mon 12	Committee Meeting	
	Wed 14	Annual General Meeting	Watch "The Planets"
	Thu 15 to Sun 18	"Brass Monkeys Star Party" Extreme Dark Sky Excursion to Lady Grey	For costs/bookings contact Dave Gordon on 702-1219
	Fri 23	<i>Public Viewing</i>	
Aug	Mon 9	Committee Meeting	
	Wed 11	Monthly Meeting	Stars & Dust in Galaxies Dr Barbara Cunow
	Fri 20	<i>Public Viewing</i>	
Sep	Mon 6	Committee Meeting	
	Wed 8	Monthly Meeting	Archaeoastronomy of the Great Zimbabwe - Richard Wade
	Sun 5 to Sun 12	Trip to Port Elizabeth, the Garden Route, Little Karoo and Sutherland	For details contact: Etienne van Zyl on 622-4564.
	Fri 17	<i>Public Viewing</i>	
Oct	Mon 11	Committee Meeting	
	Wed 13	Monthly Meeting	T.B.A.
	Thur 14 to Fri 15	ASSA Symposium 2004 at the Military History Museum	For details contact: Brian Fraser on 016-366-0955 or email brian.fraser@macsteel.co.za
	Sat 16	Symposium continues at HartRAO	
	Fri 22	<i>Public Viewing</i>	
Nov	Mon 8	Committee Meeting	
	Wed 10-	Monthly Meeting	T.B.A.
	Fri 19	<i>Public Viewing</i>	

Reminders

2004	Centenary: Sir Herbert Baker Library Building <i>Johannesburg Centre to host 2004 ASSA Symposium</i>
2006	March 29: Total Solar Eclipse

Welcome to new Members

Simon Rix and Family
Andrew Helsdon

We wish you clear skies and many happy years of observing

Chairman's Chat - July 2004

USA South, 2004

In February this year, I drove 5600 kilometres, in a giant loop across the southern United States, in search of observatories, a space centre, a crater and a canyon. I travelled on lonely country roads, winding mountainous passes, wide interstate highways and in six lane rush-hour traffic through downtown Houston. Sit back, relax, and sip a hot cup of something while I tell you about it.

It was an awakening experience to drive my brother's Ford Tuscany panel van through the morning rush hour traffic of Houston, fourth most populous city in the United States. At one point, I counted four layers of flyovers, stacked one above the other. As I drove in a state of heightened awareness and extreme concentration, I avoided the many dozens of exits, each trying to sell me a new direction of travel, and headed single-mindedly towards the Galveston/NASA signals. Finally, I arrived at the Johnson Space Centre at NASA, exhausted and elated.

America is built on commerce. NASA in Houston is no exception. That's the way it is and one just has to go with the flow. So I dutifully purchased an admission ticket, and was immediately up-sold onto the tram tour and the set of headphones to plug into various audio visual ports distributed strategically around the visitor's centre. What a sucker I am for a good deal. I'm sure you get the picture - perfectly packaged and merchandised for the masses. So, I'll cut my cynicism short and tell you that I visited the old Apollo Mission Control room, the X38 test vehicle facility, the International Space Station training modules, and the space shuttle training vehicle. The highlight of my visit was spending much time in vault containing a fascinating array of lunar rock samples collected from various lunar sites as well as seeing the Gemini and Apollo VI test capsules.

Sunset and it was time to drive west through the Big Country. Afternoon rush hour traffic through Houston again. Why did I do this to myself? By 9pm that night I was safely parked at a truck stop and tucked into the bed I'd made in the back of the van. Very comfortable indeed. I found these

truck stops on the side of the interstate highways very clean and convenient. There are ablution and shower facilities as well as the obligatory array of fast food outlets and convenience stores. Every second night or so, I booked into a Best Western Motel - mostly to remind myself that I wasn't doing this for penance sake.

I arrived at McDonald Observatory, near the diminutive town of Fort Davis, Texas at 1am. With a freezing wind buffeting the vehicle and tiny flakes of snow pressing onto the windscreen, I snaked up the hill, with lights dimmed to parking setting, just in case. I met no one and no resistance. There was no boom control or guard gate and I drove right up to the Hobby-Eberly telescope dome. After a brief walk around the outside structure and a gaze at the CCAS (Centre of Curvature Alignment Sensor) Tower, it was time to take 40 winks in the back of the van and see what the morning would offer.

Freezing cold and with snow flakes drifting into my eyes, I knocked on the door to HET dome and Jim Fowler, facility manager, opened the door. I jovially introduced myself, nonchalantly mentioning that I had just come from Africa to see this telescope. When you do that, they can't help but smile and invite you in. And so it was that Jim and I sat for over an hour sipping hot coffee while we talked about this 9.2 meter effective aperture telescope with 91 hexagonal segments, and the research that they are busy doing with the instrument. While we talked, I freely snapped pictures of the primary mirror, the tracker and camera system. I reciprocated by offering everything I knew regarding the progress of SALT and I felt real SA pride at that point. What a dream come true. Kicking the dirt with the facility manager at one of the larger observatories of the world. Finally, Jim suggested I pop across the hill and visit the 2.7 meter (107 inch) Harlan J Smith f8.8 Cassegrain Ritchey-Chretien telescope. Why not indeed!

John Booth, site director, met me at the door and we immediately struck up conversation about all things astronomical. He graciously whisked me on a personalised tour of the facility and I again

managed to get some amazing pictures of both the 2.7 meter telescope and the 2.1 meter (82 inch) Otto Struve f13.7 Cassegrain telescope. He talked constantly and affectionately about the equipment and when possible, I managed to slip a word in sideways about South African equipment at Sutherland. I was pleasantly surprised by his very impressive knowledge of Southern African astronomical activities and achievements.

I was so encouraged by the friendliness and hospitality of these people. I must stress that I arrived unannounced and unscheduled and these people took some time out to show a complete stranger around the facility. I wonder if South African facilities would do the same for an American visitor? But then it was time to act like a regular tourist and go down to the very impressive McDonald Observatory Visitor's Centre and spend a dollar on a nice large cup of hot coffee. Now I wish I had bought that T-shirt.

On the road again and I continued my journey westwards. Not quite an hour later and I was out of the snow and travelling through Karoo-like desolation. Beautiful. Deep western Texas and acre upon acre of oil fields, with their mechanical nodding donkeys laboriously pumping oil 24 hours a day. The pungent smell of oil was both novel and repulsive. Two days of clear driving and I was finally out of the State of Texas and into New Mexico. The recent cold front had just dumped 200 millimetres of soft snow onto the New Mexico desert; the landscape I encountered was magnificent beyond words.

As a youngster, I enjoyed piecing together puzzle pictures of snowy forest/derelict barn scenes - I was now looking upon these picturesque scenes with my own eyes. After stopping for a quick *Budweiser* in the snow-covered dreamy hamlet of Cloudcroft, I pressed on towards the Sunspot Solar Observatory on Sacramento Peak, deep in the Lincoln National Forest. This time, I found my way into a very active control room at the solar observatory. I was warmly welcomed by four young solar astronomers who explained the workings of the telescope to me and what they were currently working on. They were busy calibrating the telescope on a 10 arc second square portion of the solar disk. I sat quietly in the background for a while, just watching and enjoying the activity. I could hardly keep my eyes off the control screens broadcasting real-

time solar images in various filtered forms - hydrogen alpha, coronal, 630.3 continuum image...now this would have been rather nice observing equipment for the Venus transit.

I gingerly navigated the van down the mountain pass and onto the New Mexico desert pan. I passed the White Sands nuclear test facility, passed through the towns of Socorro and Magdalena and headed for the giant dishes of the Very Large Array. Great white leviathans spread-eagled in a great Y-shape across the planes of San Agustin. Each arm extends 21 kilometres. The data from the 27 antennae is combined electronically to give the resolution of an antenna 36 kilometres in diameter and the equivalent sensitivity of a single dish 130 meters across. I stood dwarfed beneath one of the 230 ton structures and snapped pictures from various angles.

I made my way to the VLA control room and was met there by Public Information Officer, Dave Finley. Dave was extremely friendly and allowed me to chat to the operator on duty. They shared information on where the telescopes were currently pointing and what they were observing - a powerful radio source near the centre of the milky way galaxy in Sagittarius. The visit to the VLA instilled a new-found respect for and interest in radio astronomy.

I crossed the state line again and entered the arid state of Arizona. After an overnight stop in Winslow, Arizona (where I was reminded of the *Eagles* song, mentioning the town, by a friendly patron in a pub), I headed for Meteor Crater. I could not help but smile at the publicity signs leading to the site: "Prototype for the study of all impact craters in our galaxy". This 1200m diameter, 180m deep cavity is called Barringer Crater and is thought to have been formed by an impactor of 40 meters about 50 000 years ago. With not another soul in sight, I stood on the crater rim and tried to imagine the sequence of events, from the time the object entered the Earth's atmosphere to the scene before me. The upper sides of the crater are near vertical, with only the lower one-third tapering off to the horizontal floor with a large central blemish where the vaporised impactor had left its signature. Looking at the impact site with one's own eyes, the damage seemed smaller than aerial photographs implied, but it is no less spectacular.

Flushed with thoughts of astronomical philosophy, I headed for the large Arizona town of Flagstaff. Disappointingly, Lowell Observatory, on the ridge overlooking the town was closed, locked and deserted. I was so looking forward to gazing at the 24 inch refractor used by Percival Lowell to sketch his infamous Mars canals. I decided to replace the disappointment immediately by pushing on to the Grand Canyon. My senses were totally unprepared for the spectacle that greeted me at N36° 03' 59", W112° 08' 45".

I stood on the edge of the rocky outcrop, soft freshly fallen snow underfoot. 1.6 kilometres below me and off in the distance, the Colorado river flowed serenely and silently. 26 kilometres away in the distance - the other side!

The first impression was that my common sense did not believe what my eyes were transmitting to my brain. A sensory overload that I had not experienced since freefalling from an aircraft with some stitched fabric strapped to my back. After what seemed like a very long time standing looking rather silly with my mouth wide open, repeatedly uttering "wow", an American visitor standing behind me remarked "Now, if they had built the Hoover Dam a little earlier, all of this destruction would have been avoided!"

It's strange what one thinks of at times like this. I thought of Mars! This 443 km long fissure

would fit into one of the small tributaries of the 4 500 km long, 7km deep Valles Marineris. What would it be like to stand at the edge of *the* grandest of canyons in the entire solar system? I found a quiet ledge, sat down in the snow at the edge of the canyon, poured myself a stiff coke with a dash of *Spiced Gold*, and drank a toast to a beautiful universe.

That's it. I had performed my partial transit of Southern USA and it was time to begin my egress. Third and fourth contact involved some visits to Native American Indian reservations, but my time allocation was over and I needed to move quickly.

As a consequence of choosing my route on the fly, I had to make some agonising decisions. My general direction of travel was westerly. The result was to include certain observatories at the exclusion of others. Kitt Peak Observatory was a big one to have missed. Yet, I have a strange feeling that I will be back to catch that one and others some day.

Dave Gordon

Dave has supplied some outstanding images of his trip which cannot be inserted in our printed copy of Canopus. These will however, be shown in all their glory when uploaded to our website

Ed.

MINUTES OF THE ANNUAL GENERAL MEETING HELD IN THE HERBERT BAKER LIBRARY, 18A GILL STREET OBSERVATORY ON 9 JULY 2003

Welcome

The Chairman, Dave Gordon, welcomed everyone present and opened the meeting at 20:12

Apologies

The following members sent apologies: Bruce Dickson, Evan Dembskey, Trevor Gould, Chris and Linda Lubbe, Kevin Pearce, Graham Tremere, Peter van Laun, Johan van Rensburg, Chris Middleton, Eben van Zyl.

Minutes of AGM held on 10 July 2002

Proposer: Constant Volschenk
Seconded: Chris Penberthy

Curator of Instruments' Report for the year ended 30 June 2003

In the absence of Peter van Laun, Constant Volschenk read the Curator of Instruments' Report:

Repair and Maintenance - Papadopoulos Dome

Notification was received during November of a loose cable that opens and closes the shutters, hanging outside the dome. It was a simple matter to replace the cable, once it's route had been established. Repaired 30 November 2002.

The wooden entrance door to the dome had sustained many years of weather, and had more or less collapsed, necessitating repairs. A wooden panel was fitted to the lower section of the door to support the main frame, and new fly screen was attached over the louvers. The night latch was refitted, and the door is now in working order, but needs painting. Repairs completed 16 Dec 2002.

The dome drive unit was not turning the dome through 360 degrees, getting stuck on the north and west sides. Examination denoted that the rubber drive wheels had hardened and could no longer provide sufficient traction to revolve the dome. The complete drive unit was removed on 16 Dec 2002 for overhaul. The weather cover for the unit was broken, and lay in the grass below. Electrical wires were connected to the motor, but were exposed to the rain and weather,(very dangerous) The motor is of the "Squirrel cage " type, and cannot withstand bad weather. Two reduction gearboxes connected to the motor drive the dome. The first box was in good mechanical condition, though weathered, and was not opened. The next box had a "Perspex" cover which was cracked on top and permitted the ingress of water. The inside of the box had rusted and a layer of sludge was lying across the bottom. No oil was present. The roller bearings had also corroded, and were unsatisfactory for further use. Thankfully the gears themselves were undamaged, so were salvaged. The main drive shaft had been repaired on two previous occasions and was unfit for further use. The support frame was badly rusted. The repairs required were undertaken during a period when the dome was least likely to be used, though the annual shutdown of many engineering suppliers at year's end delayed the work. Bearing supplies were available for the gearbox, so a new main shaft was machined and fitted, a new cover and a new driving flange made, and the box was

assembled, minus it's rubber wheels. The electric motor was checked and had new bearings fitted by Relion Electric as a gift to the Society. The rubber drive wheels were not ready for collection until the 22 Jan 2003. The base frame was painted, and the weather cover repaired. The roller bearings on which the dome revolves were greased and the drive unit was installed in early Feb 2003. An electrical problem arose and needed attention, which was attended to by Dave Hughes.

Tree cutting

The tree cutting on 15 Feb saw 5 members occupied for about 6 hours, and although a fair amount of work was done, it was too big a task for so few people in one day.

Locks

The library door in the Sir Herbert Baker building was found open on two occasions, and it was decided to replace the mortise locks to prevent further problems. The Imperial sized locks were removed, and replaced with metric sized equivalents. The locks were removed on 12 April and the door furniture was polished to enhance appearance, all being replaced on 1 May 2003.

Solstice clean up

A well sized team presented itself for this event, too many names to mention, and a lot was accomplished. Many thanks to Chris Middleton and his team for a well done tree-cutting job. Everybody pitched in from cleaning to scraping to painting and sweeping (not to mention food and drink which in itself was a mission). That however, was insufficient to complete all the tasks, and a future effort will have to be made.

Peter van Laun – Curator of Instruments

Proposer: Chris Stewart Second: Melvyn Hannibal

Librarian's Report for the year ended 30 June 2003

Submitted after the AGM:

Another busy year in the library!

We cleaned the library at the Winter Solstice party, which took more effort than originally estimated. However, it was well worth the effort.

A big "thank you" to member Angeline Evans for all her help during the cleanup.

A number of valuable books and star catalogues were found to be in bad condition. Steps have been taken to protect them from further damage, and to repair them where possible. A mild fish moth infestation was discovered. Judicious use of appropriate products appears to have eliminated them.

Cataloguing is about 10% finished, and should take another 12 months to complete. This does not include magazines, software, videos or film. The catalogue should be available online before the end of the year.

We exceeded our original goal of eleven new (to the library) books. Thirteen titles were added, including a number of donations from members and also from Exclusive Books. An unused bookcase was appropriated from the ATM class, which has helped to alleviate the shelving space problem.

Unfortunately, the library was broken into. Even more unfortunately, it is difficult to establish if anything was stolen. Two windows were broken, and a number of CDs are unaccounted for. The locks have been changed, and plans to secure the windows have been made.

Evan Dembskey - Librarian

Treasurer's Report for the year ended 30 June 2003

Income Statement for the Financial Year ended 30 June 2003

	R 2003	R 2002
Income	55,597.62	29,152.33
Subscriptions & Joining Fees	23,934.20	12,068.57
Donations - Members & Non-Members	1,280.00	3,077.60
Donations - Telescope Making Class	500.00	250.00
Donations – Refreshments	679.10	890.00
Donation – Planetarium	200.00	1,000.00
Raffle Monies - Binocular raffle	0.00	1,620.00
Eclipse 2002 Net Income	6,410.00	0.00
Special Event - Marsha Ivins Breakfast & Posters	4,810.00	0.00
Hobby-X Gross Income	4,423.90	0.00
Scope-X Gross Income	13,360.42	10,246.16
Expenditure	36,922.81	20,946.86
Bank Charges	1,150.02	503.53
Eyepieces	0.00	1,045.00
Framing & Block Mounting	658.50	355.00
Hobby-X : Printing	0.00	235.50
Hobby-X : Stand Fee	723.90	570.00
Library Books	861.60	0.00
Post Box Rental	215.00	200.00
Printing & Distribution - Canopus	6,826.98	4,936.24
Refreshments - monthly meetings	1,231.75	139.44
Marsha Ivins Cost - Breakfast, Gift & Poster Costs	4,213.15	0.00
Prizes - Book Draw	668.25	0.00
Rent - AS&TS	4,668.75	5,989.15
Repairs & Maintenance	4,531.51	0.00
Scope-X Expenses	9,143.00	5,793.00
Speaker's Gifts - monthly meetings	0.00	220.00

Subscriptions - Sky & Telescope, Astronomy	1,647.00	575.00
Web Site Expenses	383.40	0.00
Trophy & Engraving	0.00	385.00
Net Surplus	18,674.81	8,205.47

Nedbank Bank Balance at 30 June	12,621.69	15,288.14
32 Day Notice Balance at 30 June	30,732.18	12,455.64
Cash Float	153.03	0.00

Dave Gordon – Treasurer

Proposer: Constant Volschenk Second: John Somers Vine

Chairman's Report for the year ended 30 June 2003

Introduction

The year ended 30 June 2003 was a phenomenal one for the Johannesburg Centre. The year started with the challenge of 2 break-ins, in which certain minor items were lost. This served to strengthen our resolve to improve security at the centre.

Your highly energised and motivated committee took it upon themselves to increase and improve the total suite of activities offered to the membership. This came in the form of providing more accessibility to the centre's equipment, upgrading and improving facilities, providing beginner's classes, more star parties and practical sessions, more excursions to dark sky locations and more public exposure in the form of shows and exhibitions.

The Johannesburg Centre is committed to improving the total astronomical experience for its members. It remains a challenge to tread the

fine line of providing stimulating and refreshing presentations for the advanced amateur and assisting the new amateur with necessary building blocks to enjoy total fulfilment in this dynamic and constantly evolving field of science.

Southern Africa is already one of the more preferred locations for the construction of larger observatories. It is our belief that, as a consequence, the popularity of amateur astronomy in South Africa is going to multiply many times over. We should not entrap ourselves by remaining steeped in the tradition of 85 years (the Johannesburg Centre was formed in 1918) but consider ourselves as young, relevant and fresh as the current year.

Membership

During 2001, paid-up membership dropped to an alarming 55. This posed dire financial repercussions for the Centre. The drive for new members, initiated by the past Chairman, Trevor Gould, and whose momentum was accelerated by your current committee, has shown reward. Membership increased by over 40% this financial year to 206 paid-up members, and a further 20 gratuitous and honorary members.

Member Type	July 2002	New	Lost	June 2003
Paid-up Members	121	65	9	177
Family members	19	10		29
Honorary members	6		1	5
Gratuitous members	14	1		15
Total	160	76	10	226

Activities**1 Monthly Meetings**

Month	Topic	Presenter	Atten.
July 2002	Annual General Meeting		39
Aug 2002	“Finding the Elusive SCP”	Dave Gordon	36
Sep 2002	“Quantum Computing”	Evan Dembsky	34
Oct 2002	“Eyepieces”	Chris Stewart	42
Nov 2002	“Consciousness Mapping”	Marilyn Lucas	50
Dec 2002	Eclipse after Party	Dave Gordon, et al	82
Jan 2003	Delta Scorpil Hubble Classics	Brian Fraser Dave Gordon	39
Feb 2003	A Visit to Birr Observatory	Tony Hilton	48
Mar 2003	A Medley of Astrophotography	Kurt Buchmann, Berto Monard, Bruce Dickson	54
Apr 2003	Pulsars	Prof Fabio Frescura	48
May 2003	Libyan Impact Craters	Prof Uwe Reimold	63
Jun 2003	You, Me and the Universe	Tom Budge	55

2 Beginner Classes

A Beginner’s Astronomy Tutorial was held at Dave Gordon’s Blue Hills Observatory on 26 October 2002. 9 members attended and 2 new members were signed up at the tutorial.

Beginner classes were started at the 14 May monthly meeting and are scheduled to continue as long as there is an interest and a demand from the members.

Month	Topic	In Class	Presenter
May 2003	Reading Star Charts	19	Dave Gordon
June 2003	Celestial Co-ordinates: RA and DEC	23	Dave Gordon

3 Public Viewing Evenings

Each month, weather permitting, on the Friday evening closest to first quarter and starting at 19h30.

4 Field Trips

Date	Field Trip	Organiser
7 September 2002	Spring Star Party at Blue Hills	Dave Gordon
4 December 2002	Total Solar Eclipse	Various
29 – 30 March 2003	Star Party at Skeerpoort	Chris Middleton
30 May – 1 June 2003	Dark Sky Excursion to Swinburne	Ed Findlay
26 – 29 June 2003	Extreme Dark Sky at Lady Grey	Tony Halliday

5 Expeditions [Southern African Meteorite Recovery Program]

26 April – 4 May Post Easter Expedition	Kalahari/Namibia	Trevor Gould
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6 Telescope Making Class

The Telescope Making Class is run in an informal manner. This flexibility makes it a friendly un-intimidating environment for newcomers, accommodates those who cannot attend regularly, allows people to work at their own pace, and keeps it fun for those who are providing the guidance. It is estimated that the average number of students attending at any one time is approximately 10. On busy days the class peaks at about 20, and on quiet times attendance dips to about 5. The youngest member of the current class is 9 years old.

Significant accomplishments of the past ASSA year:

- 12 telescopes have been completed within this period.
- Brian Fraser is about ready to aluminise his 20-inch mirror, which was ground and polished entirely by hand. This is the largest mirror ever to have come out of the class.
- Two 12-inch mirrors are currently in the figuring stage.
- The class built a telescope for Joel Dorfan, in appreciation for his having provided us with significant quantities of optical components suitable for finder scopes and eyepieces.

7 Publications

Our Editor, Chris Penberthy has successfully produced 12 superb editions of Canopus during the year under review. Contributions from members are encouraged to the point that they take precedence over fill-ins from the Internet.

If you would like to see more local articles, why not contribute something about your special interest?

The Editor also maintains our internet site. Contributions and images for display are also needed.

8 ScopeX

The objectives achieved at ScopeX:

- Publicity and recruitment of new members to the Society – 2 new members signed up on the day.
- Recruitment of new members to the Telescope Making Class – the telescope

making demonstration was very popular and 12 new students attended the class on the Saturday after ScopeX.

- Education of the public in general astronomy – (attendance was 956 incl. 300 children compared to 1120 incl. 338 children in 2002).
- Gathering of like-minded people interested in astronomy/sky-gazing in general - general feedback is that the exhibitors and the public enjoyed the day.

Other noteworthy points from this highly successful venture:

- The number of amateur telescope exhibitors grew to 43 from 27.
- There were 10 lectures presented in the auditorium with six professionals presenting talks compared to three last year.
- Commercial telescope exhibitors increased from one to four this year (total of seven commercial exhibitors) and all of them would like to be part of ScopeX next year
- The Raffle is the best way to get income for ASSA. Splitting the Raffle from the Info Desk worked well (350 tickets were sold at ScopeX, 39 at HobbyX, 389 in total)

A complete final report and financial statements of ScopeX are available for perusal upon request.

Relations with Landlords

Our landlords, the Associated Scientific and Technical Societies of South Africa (AS&TS) have ceased to exist. A meeting was held with members from the National Research Foundation (NRF), Foundation for the Education of Science and Technology (FEST) and interested parties on the 14 November 2003. Dave Gordon, acting as representative on behalf of ASSA Johannesburg Centre, presented an overview of the society's activities and interest in the observatory site.

Dave Gordon was subsequently elected to the steering committee charged with the task of determining the future development of the site for the purposes of scientific education (the formation of a so-called science centre). FEST was to be the new managing body of the observatory site. However, recent developments point towards the dissolution of FEST and the

vesting of site interests in a new body known as the South African Agency for Science and Technological Advancement (SAASTA).

In view of the above uncertainties with regards to the site management, the ASSA Johannesburg Committee has decided to suspend rent payments until negotiations with a final management body can be finalised.

Successes

- Participation in HobbyX – 19 new members were signed up as a result of the event.
- Pre-eclipse gathering on Saturday 16 November with various speakers participating.
- The eclipse after party on the 11 December and visit by the Royal Dutch Astronomy Society. Henk Brill, head of the Occultation Section, presented 2 books to the society:
 - Diskussie van die waarnemingen van Satekkieten I II en II van Jupiter gedaan te Johannesburg door Dr RT A Innes in de jaren 1908 – 1925
 - Evolucie in Weer- en Sterrekunde. 100 Nederlans Onderzoek
- Telescope Driving Course 9 November 2002
- Tree Cutting on Saturday 15 February 2003
- Solstice Clean-up on 21 June 2003

Initiatives Begun, but not Completed

- The repainting of the Papadopoulos Dome interior
- Telescope driving courses to run in tandem with the beginner's classes at every monthly meeting.
- The cleaning, sanding and re-varnishing of the meeting hall floor
- The casting of an adaptor plate to enable the 26 inch refractor in the Innes Dome to accept standard commercial eyepieces
- The establishment of a special projects committee to manage the 2004 ASSA Symposium, to be hosted by the Johannesburg Centre
- Field trip to the Boyden 60 inch

- A visit to SALT in Sutherland

Specific Thanks

The Chairman would like to thank the committee for their outstanding work during the year.

A special thank you must be extended to Lerika Cross for her tireless work, particularly for her organisational expertise with respect to ScopeX 2003.

And finally, thank you to all those members who contributed financially or otherwise during the year.

Dave Gordon – Chairman

Proposer: Melvyn Hannibal
 Secunder: Chris Penberthy

Election of new committee for 2003/4

The following members were elected to serve on the Committee:

Dave Gordon	- Chairman
Chris Stewart	- Vice Chairman
Lerika Cross	- Secretary
Evan Dembsky	- Librarian
Bruce Dickson	- Assistant Viewing Officer
Brian Fraser	- Special Projects
Tony Halliday	- Assistant PR & Media Liaison
Dave Hughes	- Curator of Instruments
Chris Penberthy	- Membership Secretary/Editor
Sharon Tait	- PR & Media Liaison
Constant Volschenk	- Viewing Officer

Closing

Dave Gordon thanked everybody for attending and closed the meeting at 21h27.

Minutes by: Lerika Cross
15 July 2003

Donation by Eben van Zyl

Eben van Zyl recently contacted our chairman Dave Gordon to express his intention of donating his collection of Astronomy books and Sky and Telescope collection to the ASSA Johannesburg Centre. The books and magazines will be catalogue and then transferred to the Jo'burg Centre Library for integration into the main collection.

The committee would like to express its heartfelt thanks to Oom Eben for this most generous donation.

Dave Gordon

Albert Jansen

Albert Jansen died 13 June after a hearth attack at the age of 64. In April this year he had already a heart attack but recovered quite well at the time. However he did plan to re-emigrate to Holland as of July. It was not to be. However he was very happy to have observed the Venus transit.

The author, Albert Jansen, was born in The Netherlands. He became fascinated by astronomy at the age of nine. After high school he obtained an MSc degree in astronomy at Leyden University. He managed the Planetarium in The Hague for a number of years and has taught physics and computer programming at Technikons in Amersfoort and Utrecht. In 1995, Albert and his wife Ellie emigrated to South Africa, where they established a private observatory in Prince Albert, welcoming many visitors each year.

Before he went to SA he was a University professor in Physics and a long standing member of the Royal Dutch Association of Astronomy and Meteorology.

He served a number of years on the national board and has written many articles on astronomy in various magazines. After early retirement he decided to start a private observatory in the Southern Hemisphere on a commercial basis in order to serve the Northern Hemisphere amateur astronomers with a place to observe the Southern Hemisphere. I do believe he has served many amateur friends with this private observatory.

He also published a book when living in South Africa: "Star Maps for Southern Africa"

*[http://www.struik.co.za/
book.book.detail.action?id=1906](http://www.struik.co.za/book.book.detail.action?id=1906)*

I believe we have lost a dedicated amateur astronomer and a friend in Albert Jansen.

Atze W. Herder

Venus Transit

8th June 2004

The day started off very overcast, with little or no chance of viewing. As the morning progressed, the clouds relented and allowed a peak at Venus and the Sun. The clouds, however, ensured that their existence not be forgotten. Every so often the transit was obscured, to be revealed again some seconds later. With each obscurity the temperature dropped some more. By the time that the transit had completed, the temperature forced the viewers into cover.

This set-up made the transit more spectacular, with Venus hovering between us and the Sun and some stray wisps of cloud passing in front of the pair.

Image Specs:

Camera Canon
Model 300D Digital
Shutter Speed 1/60
ISO Speed 100
Time 01H11PM
Date 08/06/2004

Kevin Pearce.

An Astronomical Poem

Scintillate, scintillate globule vivific,
 Fain would I fathom your nature specific.
 Loftily poised in the ether capacious,
 Strongly resembling a gem carbonaceous:
 Scintillate, scintillate globule vivific,
 Fain would I fathom your nature specific.

Submitted by: **Brian Fraser**

For Sale

Meade reflecting telescope
 model 4500
 with equatorial mount.

Price: R4500-00
 Contact: **Mr Robinson**
 Phone: 805 3488

* * * Wanted * * *

Sky and Telescope

issues prior to 1960

and

Books

on telescopes & telescope making.

Contact **Chris Stewart**
 (011) 763 3301

* * * Do You Need * * *

Filters for Binocular Solar viewing?

Well look not further.....High quality
 binocular filter sets are available locally
 and guess what - they're available at a
 really reasonable price.

(please supply objective diameter when ordering)

Contact:- Vince Nettmann
 (011) 475-3707
 083-332-9333

Committee of the Johannesburg Centre of the ASSA for 2003/4

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The Sky this Month

July 2004

dd hh	dd hh
1 12 Mercury 4.9 S of Pollux	15 03 Venus greatest brilliancy
1 22 Moon at perigee	16 19 Saturn 4.8 S of Moon
2 11 FULL MOON	17 11 NEW MOON
3 19 Venus 1.2 N of Aldebaran	19 02 Mars 3.9 S of Moon
4 13 Earth at Aphelion	19 15 Mercury 4.9 S of Moon
4 15 Neptune 5.0 N of Moon	21 14 Jupiter 3.0 S of Moon
6 03 Uranus 4.0 N of Moon	25 04 FIRST QUARTER
8 17 Saturn in conj. with Sun	26 04 Mercury 1.6 S of Regulus
9 08 LAST QUARTER	27 02 Mercury greatest elong. E(27)
11 03 Mercury 0.1 N of Mars	30 06 Moon at perigee
14 00 Venus 7.7 S of Moon	31 19 FULL MOON
14 23 Moon at apogee	

August 2004

dd hh	dd hh
1 01 Neptune 5.1 N of Moon	16 23 Mercury 6.3 S of Mars
2 12 Uranus 3.7 N of Moon	17 21 Venus greatest elong. W(46)
6 03 Neptune at opposition	18 05 Jupiter 2.6 S of Moon
7 22 LAST QUARTER	23 06 Mercury 5.2 S of Regulus
9 04 Mercury stationary	23 10 FIRST QUARTER
9 21 Mars 0.7 N of Regulus	23 23 Mercury in inferior conjn.
11 11 Moon at apogee	27 06 Moon at perigee
11 23 Venus 7.9 S of Moon	27 18 Uranus at opposition
13 09 Saturn 5.0 S of Moon	28 09 Neptune 5.0 N of Moon
16 02 NEW MOON	29 21 Uranus 3.8 N of Moon
16 19 Mars 3.6 S of Moon	30 03 FULL MOON
16 20 Mercury 9.7 S of Moon	31 09 Pluto stationary

LOCAL TIMES of RISE and SET for the MAJOR PLANETS, 2004

Site Location: Long. +28.0 deg. Lat. -26.0 deg. Local Time - UT +2.0 hrs.

Date	Sun		Mercury		Venus		Mars		Jupiter		Saturn	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
Jul 09	6.56	17.30	8.18	19.02	4.12	15.07	8.24	19.12	10.15	21.52	6.55	17.29
Jul 19	6.54	17.34	8.25	19.32	3.53	14.45	8.06	19.02	9.40	21.20	6.20	16.55
Jul 29	6.50	17.39	8.13	19.43	3.43	14.32	7.47	18.52	9.06	20.49	5.46	16.22
Aug 08	6.43	17.44	7.43	19.29	3.40	14.25	7.28	18.41	8.32	20.18	5.12	15.48
Aug 18	6.35	17.48	6.52	18.38	3.40	14.24	7.08	18.31	7.59	19.47	4.37	15.14
Aug 28	6.26	17.53	5.52	17.21	3.42	14.28	6.48	18.20	7.25	19.17	4.02	14.40