

ASSA AGM 2015/16 MINUTES

Date: 5 Aug 2015
Time : 20:00 to 22:00
Venue: SAAO Auditorium

PRESENT

Council Members	Prof Matie Hoffman	President
	Dr Pierre de Villiers	Vice President
	Eddy Nijeboer	Cape Centre Chair
	Adv A J Nel	Treasurer
	Maciej Soltynski	Scholarships
	Lerika Cross	Secretary
Council Appointees	Auke Slotegraaf	Sky Guide Editor
	Christian Hettlage	Web Master
	James Smith	Web Manager
ASSET	Cliff Turk	ASSET Secretary
ASSA Members	Wendy Vermeulen	
	Keith Gottschalk	
	Richard Sessions	
	Heather Sessions	
	Chris Echard	
	Richard Ford	
	Willem Brazelle	

Apologies received: Dr I Glass, Chris Stewart, Case Rijdsdijk, Peter Dormehl, Peter Cramb, Tim Cooper.

Welcome: E Nijeboer, the ASSA Cape Centre Chair, who fulfilled the role of host and Master of Ceremonies for the AGM, welcomed everyone and opened the meeting.

Minutes: The minutes of the previous AGM meeting, held on 6 August 2014, were accepted without amendments (Proposed A Slotegraaf, Seconded M Soltynski)

Reports (all reports are given at the end)

The ASSA President, M Hoffman, presented his Report on Council.

Reports received from the ASSA Directors

The reports that were received from ASSA Directors were tabled and presented and accepted by the meeting and will be placed on the website and in *MNASSA*:

- A) Shallow Sky Section Report from the Director, D Blane.
- B) Deep Sky Section Report from the Director, A Slotegraaf.
- C) Imaging Section Report from the Director, A Versfeld.
- D) Cosmology Section Report from the Director J de Bruyn.
- E) Historical Section report from the Director C de Coning.
- F) Instrumentation Section Report from the Director, C Stewart.
- G) Observing Report received from the Director K Coronaios.
- H) Photometry and Spectroscopy from the Director J Jooste.

Awards

ASSA Directors Awards: Dave Blane as Shallow Sky Director recommended Chris Vermeulen for a Director's Award for his Solar observations, see report.

Auke Slotegraaf as Deep Sky Observing Director recommended Hannes & Pieter Pieterse for Observing Certificates.

ASSA Scholarships: Convener Maciej Soltynski presented his report. He also announced that he has decided to step down after 14 years as Convenor of the ASSA Scholarships Committee. He gave the meeting an overview of how ASSA Scholarships progressed to the point where 29

students have been funded up to now through part of their University courses.

M Hoffman thanked Maciej for his magnificent contribution to the area of student scholarships and his perseverance in finding funds.

Financial Reports 2014/15: AJ Nel presented the 2014 /15 Financial Report.

In response to a question from the floor he clarified accounting fees versus the auditing fees: Auditing fees were paid to the Auditor because of the extra effort required from the Auditor for the years 2011 to 2014, recently completed by R Glass, the Auditor. The fee paid was considered to be a once-off payment rather than recurring expense. The accounting fees are for services approved by ASSA council to enable a smooth auditing process going forward.

M Hoffman thanked AJ Nel for his effort and noted the effort that was required to get the auditor questions answered for the period 2011 to 2015.

It was agreed that the financial report will be placed on the website.

ASSA Endowment Trust: C Turk, the Secretary of the ASSA Endowment Trust, read extracts from the report from ASSET

ASSA Auditor: There were no objections to the proposal to request Ronnie Glass to continue as ASSA Auditor. It was noted that it is ASSA's own choice to be audited - it is not a mandatory requirement.

Office Bearers 2015/16: The meeting was advised that there was no need for voting for positions on Council or for Appointees as no more nominations were received than were required to fill available positions.

The Council and Appointees' positions for the 2015/16 year were presented and accepted as listed at the end. See separate list.

The new incumbents were welcomed: James Smith (Web Manager) and Claire Flanagan (Convenor of Scholarships).

M Hoffman also welcomed Pierre de Villiers as the new ASSA President for next two years and said ASSA is looking forward to his tenure.

AOB: As no other business was raised, E Nijeboer closed the formal part of the meeting.

Presidential Address: Prof Matie Hoffman presented his presidential address on Einstein.

Next Council Meeting: This will be held on 22 September 2015 19:30 via Skype.

Closure: E Nijeboer extended a gracious thank you to M Hoffman for his Presidential Address and thanked everyone for their attendance.

Gratitude and thanks were again extended to ASSA Cape Centre for their kind hospitality. The meeting closed at 22:05.

ASSA Council and Appointees 2015/16

To apply from 12 August 2015

Title	Council Members 2015/16
President	Dr Pierre de Villiers
Vice President	Prof Matie Hoffman
Vice President	Case Rijdsdijk
Treasurer	Adv AJ Nel
Mem'ship Sec.	Bosman Olivier

Secretary	Lerika Cross
Council Member	Chris Stewart
Council Member	Dr Ian Glass
Cape Chair	Eddy Nijeboer
Durban Chair	Peter Dormehl
Garden Route Chair	Case Rijdsdijk
Johannesburg Chair	Jerome Jooste
Pretoria Chair	Johan Smitjohanchsmit@gmail.com
Hermanus Chair	Dr Pierre de Villiers
Bloemfontein Chair	Marthinus Van Der Merwe
Midlands Chair	Steve de Vos

ASSA Council Appointees reporting to Council

MNASSA

Editor	Case Rijdsdijk
Asst and Layout Ed.	Ian Glass
Asst. Layout Editor	Willie Koorts
Reviews Editor	Lia Labuschagne

Sky Guide

Editor	Auke Slotegraaf
Assistant Editor	Ian Glass

Website

Webmaster	Christian Hettlage
Web Manager	James Smith

ASSA

Convener of Scholarships	Claire Flanagan
Observing Director	Kos Coronaios

Comms. Officer	Case Rijdsdijk
Outreach Officer	Johan Smit
Archivist	Chris de Coning

Sections (Groups)	Directors 2015/16
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A - Shallow Sky: Asteroid, Meteors, Comets, Lunar, Occultations, Planetary, Satellites, Solar	Dave Blane
B - Deep Sky: Deep Sky, Double Stars, Variable Stars	Auke Slotegraaf
C - Photometry, Spectroscopy	Jerome Jooste
D - Cosmology and Astrophysics	Frikkie de Bruyn
E - Southern African Astronomy History	Chris de Coning
F Dark Sky	Johan Smit
G - Imaging Section	Allen Versfeld
H Instrumentation, including ATM	Chris Stewart

Editorial Board

<i>MNASSA</i> - Editor	Case Rijdsdijk
<i>MNASSA</i> - Assistant Editor and Layout Editor	Ian Glass
<i>MNASSA</i> Assistant Layout Editor	Willie Koorts
<i>Sky Guide</i> - Editor	Auke Slotegraaf
Book Review Editor	Lia Labuschagne
Professional Astronomer	Emeritus Prof. Brian Warner
Professional Astronomer	Emeritus Prof. Michael Feast

ASSA Scholarships Report for the period 1 July 2014 to 30 June 2015

Maciej Soltynski (Convenor, ASSA Scholarships Committee)

The ASSA Scholarship

The ASSA Scholarship was established in 2000 to encourage the study of Astronomy at any Southern African university at the 2nd and 3rd year level. The Scholarship is funded by ASSA.

The ASSA Scholarship for 2015 has been awarded to Brandon du Preez, who is a second year science student at the University of Cape Town. He plans to major in physics and astrophysics.

Freya Bovim, who held the ASSA Scholarship in 2014, was forced to take an extended leave of absence from her studies for health reasons. She has in 2015 resumed her second academic year as a science student at the University of Cape Town.

HartRAO-ASSA Scholarships

The new HartRAO-ASSA Scholarships are generously sponsored by the Hartebeesthoek Radio Astronomy Observatory and are administered by ASSA. For 2015, the value of each one was R14 000, and they were awarded to the following students:

Michael Sarkis, a third year science student at the University of the Witwatersrand.

Jeremy Smith, a third year student studying electrical and computer engineering at the University of Cape Town.

Verlon Etsebeth, who is entering his third academic year in science at the University of South Africa. Verlon held a SAAO-ASSA Scholarship in 2014.

In 2016 the Hartebeesthoek Radio Astronomy Observatory will fund three HartRAO-ASSA Scholarships with a value of R16 000 each.

South African Astronomical Observatory - Astronomical Society of Southern Africa Scholarships

The SAAO - ASSA Scholarships for undergraduates are no longer available. They were awarded to twelve different students on 15 occasions in the period 2007-2014.

The three students who held the Scholarships in 2014, Francois Botha, Dean De Villiers and Verlon Etsebeth, are all continuing with their undergraduate studies in 2015. Verlon Etsebeth has been awarded a HartRAO-ASSA Scholarship for 2015.

Expressions of appreciation

Dr Ian Glass, Sivuyile Manxoyi (SAAO), Marion West (HartRAO) and Andrew Gray are thanked for their valued inputs in the evaluation and selection of candidates during the period under review. Thanks also go to the lecturers and teachers who supplied assessments of candidates.

HartRAO and its Director, Prof Ludwig Combrinck, is thanked for generously making funds available for the HartRAO Scholarships. The support of Prof Nithaya Chetty, Deputy CEO Astronomy at the NRF, is noted with appreciation.

SAAO is thanked for making funds available for the SAAO-ASSA Scholarships in 2014.

After serving as Convenor of the ASSA Scholarships Committee for 14 years, Maciej Soltynski will step from down this position at the end of the ASSA year.

ASSET 2014

Report to ASSA AGM on 5 August 2015

The Trustees are pleased to report that gross annual income from investment interest received during 2014 amounted to R6 043. From this Amount must be deducted a tax provision of R2 417 and operating costs of R217 which leaves a nett disposable income for the year of R3 409.

A grant of R5 739.90 was made to Johannesburg Centre of ASSA in January to cover the full cost of shelving to store and preserve the photographic plate collection from the Union/Republic Observatory.

The nett result is a loss for the year of R2 331. However, since the end of the year interest rates have improved and it is hoped that 2015 will show a recovery.

The Trust is always prepared to consider requests for financial assistance within the reasonable limits imposed by its income.

Signed: C.R.G. Turk. Trust Secretary.

(A) Annual report 2015- ASSA Shallow Sky Observing Section

by Dave Blane

Sun

Chris Vermeulen was the most active Shallow Sky contributor having submitted excellent solar images and sunspot analysis in regular monthly reports.

The spectacular naked-eye sunspot AR2192 was well observed with images and received from many observers including Chris Vermeulen, Richard Ford and Kos Coronaios.

Chris Vermeulen has agreed accept the position of specialist/consultant in solar observing sub-section. His knowledge and experience will certainly be of great value to us in this area.

Moon

The Moon was a favourite target for our observers with numerous images of the Moon at all phases as well as conjunctions with bright stars and planets having been received.. Richard Ford was particularly prolific with his excellent images.

The International Observe the Moon Night initiative was well supported with reports received from Louis Trichardt, Henley-on-Klip, Johannesburg Observatory and the Orion Observation Group in Paarl.

Comets

The “Christmas Comet”, Comet 2014 Q2 Lovejoy was well observed by several Shallow Sky observers. Kos Coronaios submitted a number of images of the comet from November to February and described the development of the tail as well as tail disruption events.

Comet Siding Spring’s encounter with Mars was also well observed with numerous images of the encounter having been submitted.

Observations and images of Comet C/2013 V5 (Oukaimeden) were also submitted by Kos Coronaios.

Meteors

A number of fireball reports have been received, with some of them more convincing than others.

Several reports of “falling objects” and bright meteors were received which generated considerable discussion. Thanks to Tim Cooper, Brian Fraser and Allen Versfeld, among others, who helped in analysing the data and providing feed back to the people reporting the sightings.

Auke Slotegraaf, Hans and Evan spent three evenings with the Helderberg Eco Rangers observing and imaging the Geminid meteor shower. A comprehensive report was submitted which included a total of 53 Geminids and 23 sporadic meteors were counted. Thanks to Tim Cooper for his analysis and comments on these observations.

Asteroids

Regular workshops and training sessions for the International Asteroid Search Collaboration (IASC) were arranged and presented by Jerome Jooste with several schools being involved. At least two new asteroids have been discovered to date!

The IASC is an online educational outreach program for high schools and colleges, in which students make original asteroid discoveries. Each day students receive telescopic images, only hours old and taken along the ecliptic. Using the software Astrometrica, they accurately measure the time and position of asteroids moving in the background. The measurements are recorded in a report sent to the Minor Planet Centre (Harvard).

The ASSA NEO-Watch programme has been set up in collaboration with NASA. NASA has embarked on the Asteroid Grand Challenge, a program to “find all asteroid threats to human populations and know what to do about them”. The Asteroid Grand Challenge involves detecting all near earth objects (NEOs) larger than 100 metres, characterise them and determine a way to mitigate them. But while dedicated search programs do a great job of finding these objects, follow up observations are required to characterise them and more precisely define their orbits. This pastime is well suited to dedicated amateur astronomers.

Occultations

The occultation of theta Librae by the Moon was observed with timing submitted by Kos Coroaios, Oleg Toumilovitch and Neville Young.

Thanks to Brian Fraser for providing alerts for minor planet occultations and for providing advice on observing these as well as Lunar occultations.

Satellites

Thanks to Greg for his input in handling queries on sightings of satellites and “UFO’s” as well as the many interesting articles he posted on Facebook.

While many images of Shallow Sky objects have been submitted over the past year these are reported to the Imaging Section unless there is some analytical or observational component in the submission.

Awards

I would like to nominate Chris Vermeulen for a **Director’s Award** for his Solar observations.

His monthly reports comprehensive and detailed analysis of Solar sunspot activity, including excellent images and graphs of sunspot groups and numbers. He has also analysed the variation of Mean Daily Frequency over a period of time and goes on to predict future activity.

Chris has also produced a comprehensive “*Amateur’s Guide to Sunspot Observation*” which he has made freely available. He is also mentoring other observers who have expressed interest in observing sunspots.

(B) Deep Sky Report to the AGM, 2014–2015

Auke Slotegraaf

I'm pleased to report to this meeting that the Section has had a great year.

Administratively, the Section has re-organized into three activity areas: Nebulae & Clusters, Double Stars, and Variable Stars. Dave Blane has generously agreed to be a Variable Star Collaborator and he now oversees

the latter two areas, while I maintain the first. The Section's web pages have, following consultation with Dave, been fully restructured to reflect this reshuffling.

In April, the Section published its first "glossy" newsletter, titled 'Nightfall'. Available as a download from the Section's web pages, it features articles by Douglas Bullis, Carol Botha, Hannes & Pieter Pieterse, Magda Streicher, Dave Blane and myself. To date, the PDF has been downloaded 989 times. The next edition will appear in October.

In the Double Star division, Dave reports that activity has been low with no reports having been received from our members. Several "Double star of the Month" articles have been published on the website. Dave Blane continued with his measurements of the double star discoveries made by James Dunlop, and Magda Streicher continued her monitoring of 162 double stars as part of her 12-year follow-up programme.

Bob Argyle, the double star observer from Cambridge University, has published a series of double star measures in *Astronomische Nachrichten*. These were made with the 26-inch Innes telescope in Johannesburg during his recent visits to South Africa. In addition revised orbits for four southern double stars were calculated and published. His publication acknowledges the co-operation and assistance he has received from members of the Johannesburg Centre in getting the telescope to function correctly and for the repair of the Repsold filar micrometer which made his observing possible.

In the Variable Stars division, it is noted that visual estimates were submitted to the AAVSO by Peter Wedepohl, Percy Jacobs and Dave Blane. This year we again had a naked eye nova. Nova Sagittarii 2015 no. 2 reached magnitude 4.5 in April 2015 and was widely observed by observers around the world. South African observers Peter Wedepohl, Percy Jacobs, Dave Blane and Jerome Jooste observed the nova. Jerome

also obtained an early spectrum of the nova which was published in Sky and Telescope magazine – well done Jerome!

In the Clusters and Nebulae division, observers have continued with their projects, as follows:

Magda Streicher's regular deep-sky writings continue to appear in MNASSA, the journal of the Webb Society, Canopus, and elsewhere. In the past year she has been revisiting brighter objects (above 9th magnitude) following the move of her observatory to less rural skies. She is working on Volume 2 of her "Deep-sky Delights", which she is considering bringing out as an e-publication, perhaps before the end of this year. A publisher has expressed interest in a book based on her deep-sky sketches, and negotiations are ongoing.

Richard Ford continues to work hard towards completing the Bennett Catalogue, a compilation of comet-like deep-sky objects identified by past ASSA President and comet hunter Jack Bennett.

Members of the Pretoria Centre continue to chase the ASSA Top-100 objects, and they and their ring leader Percy Jacobs are thanked for their dedication. The Top-100 featured in the 2014 November newsletter of the Centre, and in 2015 March Percy gave feedback on their activities.

The Director continues his observing programme of dark nebulae, with the goal of creating the first visual atlas of these most delightful objects. Astrophotographers and observers keen on collaborating are heartily welcome! Some small effort was put into developing an Android app for visual observers, and work is likely to continue on this in fits and starts in the months ahead. The first interview for a deep-sky documentary was filmed in February, and Hannes Pieterse and Hans van der Merwe are thanked for helping with the design and construction of the camera rig that was used to film the segment. The deep-sky book "Pearls of the

"Southern Skies" (by Dieter Willasch and myself) was published by Firefly Books (Canada) in November 2014.

During the year, Hannes Pieterse has taken on the task of Programme Co-ordinator for Deep-Sky Marathons, and he is thanked for this wonderful initiative.

Feedback was provided to several astrophotographers about the deep-sky objects they targeted, including Bob Sim and Leslie Rose.

In March, contact was made with Dr Glen Cozens regarding his recent publication on the intriguing catalogue by the early-19th century observer James Dunlop. An independent review of his conclusions is under way.

The Deep-sky Observer's Companion online database (DOCdb.net) continues to be used as a growing online repository, with 213 registered users. Prof Courtney Seligman contacted the Section via DOC with updated information, and I look forward to ongoing collaboration.

The year under review also saw the completion of the first phase of the "Big Five of the African Sky" project, an observing initiative aimed at creating public awareness of our night sky. During this completed phase, resources have been developed, in both English and Afrikaans, which include a handbook, flyers, sticker sets, T-shirts, mugs, and a digital media kit.

The support of ASSA Council, in the form of significant funding for the production of these materials, is gratefully acknowledged. Kos Coronaios, Carol Botha, Hannes Pieterse and Suki Lock are thanked for their significant input and continued support to reach this stage. Kyle Vorster is thanked for proof reading the documents, Hannes for taking care of the Afrikaans translation, and Dave Blane for his early promotional efforts.

During the second phase, ASSA Centres and other pockets of activity will be approached to gauge their interest, and local media will be used to promote the project. The timing will naturally have to coincide with the

actual visibility in the evening sky of the Big Five, which spans from January to August. I'd like to take the opportunity now to invite Centre chairs & observing officers, and any other interested parties (for example those active in outreach) to please contact me soonest to express their interest in taking part in the launch in 2016.

Finally, it's a great pleasure to announce that Hannes & Pieter Pieterse have been issued an Observing Certificate for planning and successfully completing an ASSA Top-100 Marathon, on the night of 2014 June 27/28.

(C) Spectroscopy and Photometry Report

Director – Jerome Jooste

Introduction

After taking the position of director of the photometry and spectroscopy section in 2014 it became very clear how few people were engaged in photometry and spectroscopy. Looking further afield to draw a reasonable comparison it is clear that on a global scale there are very few observers participating in these two fields. I took some time to research the reasons and came to the conclusion that there are several factors that mitigate the local amateurs from blame of lethargy and disinterest. The ASSA website was then updated with the intention of affording members sufficient information via links to stimulate interest.

Accurate Data

Both photometry and spectroscopy are areas where amateurs can add to data used by professionals. That said it must be considered that to provide useful data it has to be prepared with great care and stand up to rigorous scrutiny. This in itself is daunting and is also a factor that may deter members from participation. Objects such as bright transients that are at far southern declinations immediately puts our sparse bits of data in the limelight and not hidden in the throng of observations which is often the case for targets far north of the celestial equator. Also careful preparation

of the setup to capture accurate data can be time consuming and takes away what little time we have for general observing and fun.

The Cost

Though DSLR's are mostly quite affordable and can be used successfully for photometry they are not the ideal camera for good spectroscopy and fall short due to the lack of a monochrome sensor. The requirements for photometry are minimal and can even be done without an equatorial mount though this is not ideal. For spectroscopy the requirements are very different. Over and above the main camera there is the spectrograph, a second camera for auto guiding as well as a good GEM for accurate tracking to consider when preparing your budget. This very quickly starts adding up to a large sum of money. With this in mind I felt it fair to give everybody an opportunity to learn how to process stellar spectra by supplying links to Fits format images taken by myself and placed in my Dropbox. This at least puts basic spectroscopy within the reach of anybody willing to take the time to learn the processes and software.

Future Developments

With regard to future developments it is intended to also supply images for those wanting to learn photometry but a plan has not yet been finalised on how best to approach this and whether it is fact a feasible project. The AAVSO and Variable Stars South have excellent educational and observing programs and it will be a waste of time trying to duplicate the work done by these established organisations.

Achievements

The high point of 2015 to date has to be Nova Sgr 2015 no 2. This transient was discovered on March 15 at mag 6 and the first photometric measurements and spectroscopic analysis started on March 16. Johannesburg was hampered by cloud and I was able to get my first reasonable low resolution spectrum on the morning of March 17 during a short break in the cloud. I then published this low resolution spectrum on the Yahoo Star Analyser and Spectroscopy forums. Sky and Telescope

subsequently published this spectrum a few days later. The publication in S&T was fortuitous and important in that it showed that South Africa is also engaged in amateur spectroscopy in the southern hemisphere.

Conclusion

Visual observation of variable stars is still the method preferred by most observers worldwide and the shift to the use of digital cameras seems to remain very slow. I believe with sufficient understanding this hurdle can be crossed. Interest in spectroscopy from members has been slight with Percy Jacobs and myself occasionally sharing data there is the hope that other members will in time take on this interesting and challenging aspect of amateur astronomy.

(D) Cosmology Section 2014 Annual Report

Frikkie de Bruyn

Director: Cosmology Section

Purpose

- (i) To disseminate news of importance in the field of cosmology to members;
- (ii) To circulate scientific papers in the field of cosmology to members; and
- (iii) To do research and promote the study of cosmology as a science.

Membership

The number of members at the end of 2014 was 15.

The year was marked by an unfortunate incident when the director was unable to get access to his account with Google. A word of thanks must go to Mr. Maciej Soltynski and Mr. Case Rijdsdijk who attempted to help solve the problem. Mr. Chris Stewart solved the problem by creating an account with Yahoo which is working well. Many thanks to Chris. After the new account was established it became clear that a number of members have resigned without Google advising the director. A number of former

members advised Mr, Stewart that they did not wish to continue with membership. Since then there has been a steady increase in the number of members.

Activities

In the course of the year the director completed successfully an online course: “From the Big Bang to Dark Energy” presented by Prof Hitoshi Murayama of the University of Tokyo.

A total of 3 240 messages were sent/received and a large number of matters were covered. The discovery of the Higgs boson at the LHC and the implications thereof for the Standard Model of Particle Physics remained in the news. Primordial galaxies and the discovery of a satellite dwarf galaxy of the Milky Way consisting of pristine hydrogen received attention. Quasars and the role of supermassive black holes in the evolution of galaxies as well as Population III stars were discussed. Doubts about the cosmic inflation of the early universe were raised but there is currently no better explanation for the cosmological principles of homogeneity and isotropy. It was reported that new stars were observed which were born around black holes. After Gamma Ray Bursts were recorded scientists could normally observe the afterglow of the stellar explosion. An exception to this “rule” was found since there was no afterglow of the explosion. The explanation offered was that the explosion was possibly caused by a not a very massive star. Comets, supernovae and collisions of galaxies were reported.

(E) Historical Section Annual Report

Chris de Coning - Director Historical Section of ASSA

Introduction

During the past year (Calendar Year 2014) the following has happened concerning the History of Astronomy.

Website

Preparation work was done to update the website to the new Wordpress format. Archival material was scanned and converted to readable PDF files.

Publications

Individuals in their private capacities wrote articles with historical content. Please note my appreciation to the following people:

- I.S. Glass; “Jacob Karl Ernst Halm (1865-1944)”; *MNASSA* Vol 73 Nos 1 & 2 February 2014
- Greg Roberts; “Amateur Optical Tracking in South Africa during 1957 - 2014. Part 3”; *MNASSA* Vol 73 Nos 5 & 6 June 2014
- Greg Roberts; “Amateur Optical Tracking in South Africa from 1957 – 2014. Part 4”; *MNASSA* Vol 73 Nos 7 & 8 August 2014
- Greg Roberts; “Amateur Optical Tracking in South Africa during 1957 – 2014 – Part 5”; *MNASSA* Vol 73 Nos 11 & 12 December 2014

Obituaries

MNASSA published obituaries on the following astronomers:

- Halton (Chip) Arp; *MNASSA* Vol 73 Nos 1 & 2 February 2014
- John Dobson; *MNASSA* Vol 73 Nos 1 & 2 February 2014
- Thomas Harry Hope (Tom) Lloyd Evans 1940 - 2014; *MNASSA* Vol 73 Nos 5 & 6 June 2014
- Dr Michael Gaylard; *MNASSA* Vol 73 Nos 7 & 8 August 2014
- Doc Jannie Smit; *MNASSA* Vol 73 Nos 9 & 10 October 2014
- Mary Fitzgerald; *MNASSA* Vol 73 Nos 11 & 12 December 2014

(G) Astrophotography Section Report - 2014/15

Allen Versveld

Current Status: The astrophotography section of ASSA has grown steadily over the past 12 months. Twenty seven active members who have submitted images to the ASSA image archive. Since the last report, they have collectively submitted 555 astronomical images.

At least one of the members has joined ASSA specifically because of his contributions to the Astrophotography Section.

We would like to welcome Neil Viljoen as our newest section specialist. He joins Dale Liebenberg, Brett du Preez, Hannes Pieterse, Jerome Jooste, Kos Coronaios, Martin Lyons, Gary Els in this role.

Recognition

Two members have been recognised outside of ASSA for their imaging: Clyde Foster is a planetary imager working from the suburbs of Centurion, outside of Pretoria. He shares his images with several dedicated planetary observation networks. He has been credited with being the first observer on Earth to observe new dust storms on Mars, and has recently been monitoring atmospheric features on Saturn.

Richard Ford has been sharing his vast image collection with the British Astronomical Association, and recently had his image of the Omega Centaury Globular Cluster featured in their deep sky section's newsletter. Congratulations and Well Done to both of them!

Collaborations

AP section members have been involved in several international collaborations over the past year.

The close encounter between Mars and Comet C/2013 A1 Siding Spring was a major event, leading Dr Padma Yanamandra-Fisher of the Space Science Institute (the same body responsible for the science operations of the Cassini probe currently exploring the Saturn system) to initiate a Professional/Amateur collaboration project to collect images of the comet for a period of about a month before, during and after the encounter.

Observations were primarily received from Australasia, South Africa and South America. South Africa was primarily represented by Kos Coronaios and Allen Versfeld. Our efforts were covered in the international press.

An asteroid occultation was recorded using video equipment on 20 July 2014. Paul Maley of Eclipse Tours travelled to Culinan, outside Pretoria, to observe asteroid Patientia occulting a star with the help of local volunteers stationed at several observing locations and equipped with video cameras fitted to small telescopes. The event was written up for MNASSA, and the results were reported to IOTA (International Occultation Timing Association).

Finally, the section director has given talks on astrophotography, both at ScopeX in 2014 (where he moderated a discussion panel), and for the West Rand Astronomy Club, speaking to some of the top astrophotographers in the country.

Failures and Successes

Early last year, the section kicked off an email discussion group, and took over the running of the ASSA flickr account. The mailing list has had very poor engagement, with the last message being sent many months ago. Presumably it does not meet the needs of the South African astrophotography community, and will likely be disbanded soon. The flickr page serves as an image archive, and astrophotographers are encouraged to submit copies of their images – both good and bad! This has been a big success, and has attracted over a thousand images in a little over a year, from more than twenty contributors. Images from the archive are automatically displayed on the ASSA gallery page, organised by photographer. Several photographers have joined ASSA after being solicited to share their images with the archive, and the use of flickr to store the archive has put these images on display to an international audience who would never have visited the ASSA gallery page.

Awards

Clyde Foster (Observing Certificate) for his consistent high quality observations of the Moon and planets.

(H) Instrumentation Section Report 2014-15

By Chris Stewart

Activities of the Instrumentation Section largely revolve around communication, outreach, guidance and education, plus the important aspect of encouraging people in the pursuit of their personal instrumentation projects. There is no drive to formally induct members into the Section; rather, the approach has been to address ASSA members' needs for information on a case by case basis.

In support of the Society's general communication efforts, which equally support the instrumentation Section's goals, the following have been performed and are ongoing:

- Moderate the ASSA FaceBook page.
- Moderate the Yahoo! Group mail lists.
- Moderate the Telescope Making FaceBook page.
- Contributed links and suggestions for website, posted content on FaceBook

The Section directly supports the needs of both ASSA members and the general public regarding construction, purchase, maintenance and use of instrumentation. This is mostly done via the telescope making class, the Telescope Making SA FaceBook page, e-mail correspondence, telephonic discussion, and ScopeX.

The Telescope Making SA Facebook group - whilst distinctly South African - has at the time of writing attracted about 450 members from around the world, an increase of about 160 during the year. This international involvement produces an energetic bidirectional flow of ideas, information, technical assistance and encouragement. Some of the unusual approaches to instrumentation adopted locally and highlighted in this medium, have this year have been favourably received abroad and are starting to be copied.

The telescope making class, which has been continuously active for over 20 years, attracts a steady stream of newcomers to the art, with a good success rate of people finishing their first instruments. In addition, a fair proportion of participants stays on or returns after completion of their first telescope, in order to tackle more advanced projects. Notable challenges currently underway include a 24" mirror and a Yolo telescope.

ScopeX, which grew out of the telescope making class, is currently ramping up for the 14th annual event. In addition to the primary goals of general astronomy outreach and publicizing the Society, it provides a platform for the telescope making community to exhibit their work and encourage newcomers to engage in this fascinating hobby. Having a plethora of instruments at one place (both commercial and amateur-built/modified), enables visitors and members alike to see and touch a variety of instruments. This sparks discussion of ideas, approaches and relative merits, enabling people to make informed choices.

To date, no communal projects within the section have been initiated. The Director again asks those interested collaborative development to get in touch with him to discuss.

Observing Section Report 2014 – 2015

Kos Coronaios
ASSA Observing Director

It seems that it was only yesterday that the 2013 -2014 Observing Report was submitted, the 2014 – 2015 year has certainly flown by with plenty of observing opportunities, especially with load shedding during the evening.

Observable and astronomical related events have been posted using the various channels and include sightings, images, comments and questions from the public, to which I respond or pass on to the relevant ASSA Sections, specialists and collaborators. For this I would like to thank, Dave Blane (Shallow Sky Director), Tim Cooper and Greg Roberts for their help. Sightings are documented on the ASSA web page.

Thank you to Michael Poll (ASSA Pretoria Centre) for once again submitting the Centre's observing reports this year. These will be archived on the ASSA web page. I would like to encourage the other Centres to also submit theirs.

Comets featured prominently the past year, with C/2013 A1 (Siding Spring) making headlines as it approached Mars, as well as Rosetta and Philae's landing on comet 67P/Churyumov-Gerasimko. Comet C/2014 Q2 Lovejoy was a splendid naked-eye apparition with 15P Finlay, Pan STARRS (C/2012 K1) and C/2013 V5 (Oukaimeden) reasonably easy binocular and telescope targets. Comet C/2015 G2 (MASTER), was the first South African comet discovery in 37 years and is still visible in our early evening skies (25th June). Cloudy skies countrywide hampered documenting the close approach to Earth of asteroid BL 86 in January, Tim Cooper and myself did however manage to capture some images. South African astrophotographers and observers imaged and documented some of these events, as well as the novae in the constellation Scorpius and Sagittarius. Various calls for the participation of South African observers have come from abroad and these have been passed on via the ASSA discussion group as well as posted on the Facebook page which in the last year has nearly doubled, with just short of 800 visitors participating (women 46%, men 54%). In conclusion I would like to wish observers clear skies for the 2015 – 2016 year.