

to the north. From an image provided the path was roughly from az/alt 15°, 15°, moving down left at descent angle 230°, to the horizon in azimuth 5°.

Observed by John Woest who gave the time at 03h28, duration 3-4 seconds, very bright yellow, said to be brighter than the Moon [not visible at the time] ending in a terminal flash and fragments 'that looked like sparkles'. Path from az/alt 2°, 30° to 353°, 21°. AMS Event 5649-2023. The fireball was sporadic.

Event 464 – 2023 September 30 – Modimolle, Limpopo

Observed by Zané Pieterse at 17h44, $m_v = -5$, said 'I was stargazing when I saw it moving very quickly left to right, duration less than 3 seconds, through the constellation of Grus, the Crane'. Looked like a bright ball with a tail. The ball was white and red, the tail was white and faded quickly as the fireball moved across the sky. No terminal flash, the light just faded, and no sounds heard. She said the ball appeared as though it was spinning. From a sketch provided the path was from az/alt 130°, 51° to 143°, 57°, that is RA/Decl. 23h00, -44° to 22h12, -49°. There is a possibility this was an early Taurid fireball. Event 5788-2023.

Event 465 – 2023 October 3 – De Rust, Western Cape

Observed by Ted Nutting at around 00h25, brighter than Venus which was then magnitude -4.6, but not visible at the time, fainter than the Moon which was then magnitude -12, altitude 31° in azimuth 16°. Duration 2–3 seconds, yellow-orange colour, appeared to have a long fiery tail, 'like a sparkler'. From a sketch provided path from approximately az/alt 310°, 15° to 280°, 30°, or RA/Decl. 23h08, +22° to 22h40, -09°. No terminal flash. The event was sporadic.

Acknowledgments

Thanks to Paul Ludick for forwarding fireballs detected using RMS cameras as part of the Global Meteor Network (<https://globalmeteornetwork.org/>). AMS reports are courtesy of Robert Lunsford (Secretary General of the IMO).

2023 ASSA AGM: President's Council Report

Dr D Cunama

Good evening all, and thank you for joining us this evening.

I would firstly like to thank Lerika for organising this meeting, and seemingly everything else. Lerika your work for ASSA does not go unnoticed and is greatly appreciated.

I would like to thank our AGM Host, Derek Duckitt, ASSA Hermanus and all the attendees for actively participating.

Next, I want to extend my appreciation to the Council members for their dedication and support throughout the past year. There are many tasks and responsibilities which take place behind the scenes to keep the wheels of ASSA turning and all of your work is pivotal in making that happen, so thank you!

Comet, Asteroid and Meteor Section

A huge thank you to Tim Cooper for running the CAM Section and providing updates

Throughout the year, members made significant observations, capturing visuals of Comet C/2017 K2 and Comet C/2022 E3, as well as conducting extensive meteor shower observations.

The Cameras for Allsky Meteor Surveillance (CAMS) tracked 4 486 meteors. Excitingly, our collaboration with the Global Meteor Network (GMN) expanded coverage in the southern hemisphere, and we are on the cusp of launching a project to promote STEM education in schools.

Additionally, our fireball analyses and contributions to the Southern African Fireball Catalogue (SAFC) have strengthened international cooperation.

We are immensely grateful to all members who participated and contributed and you can read more details in Tim's report.

Astrophotography Section (formerly known as the Imaging Section)

The section has been instrumental in promoting and coordinating the use of astronomical imaging technology by amateur observers, resulting in a remarkable collection of images created by South African amateur astronomers available on our Flickr image archive,

Our collaboration with ASSA Publications has been highly successful, leading to contributions in Sky Guide, MNASSA, and Southern Skies. Furthermore, we are proud of our international collaborations, such as with sponsors like Optolong, which have provided incentives and support to the thriving local astrophotography community.

The recent Big 5 of the African Sky Astrophotography Challenge, sponsored by Optolong, was a great success, bringing forth stunning images. I would like to express my gratitude to our dedicated Section Director, Martin Heigan, for his invaluable leadership.

ASSA Historical Section

As the Astronomical Society of Southern Africa celebrated its centenary, we commemorated this significant milestone with numerous achievements in the field of the history of astronomy.

Notably, a cloud-based backup digital Archive was established, ensuring vital documentation accessibility for future council members and easing historical research. The Bi-Annual ASSA symposium in Cape Town put a spotlight on historical materials, emphasizing the importance of preserving our astronomical heritage.

In our publications, we unveiled captivating articles chronicling the history of different aspects of the Society, thanks to the dedication of the editorial team and various contributors.

Additionally, MNASSA published obituaries, paying tribute to distinguished astronomers who have left an indelible mark on our community.

Special appreciation goes to Archivist and Director of the Historical Section, Chris de Coning, for his leadership and commitment.

ASSA Cosmology

This year, we embarked on an engaging journey through the "History of the Universe" series, featuring 17 YouTube videos, in collaboration with the Hermanus Centre.

These informative videos covered a wide range of captivating topics, from the Big Bang to the nature of space and time. The approachable presentations in layman-friendly language aimed to cater to the majority of our members' interests. While we have seen some enthusiastic participation through Zoom, we are striving to improve attendance, especially from non-Hermanus ASSA members. To better meet the cosmology-related needs of our membership, we plan to conduct a survey to gauge interests and preferences for future directions.

Thanks to Derek Duckitt for his hard work on this.

ASSA Instrumentation Section

Activities primarily focus on communication, outreach, guidance, and education to support the instrumentation needs of both ASSA members and the general public. Through our online platforms, including Facebook pages, WhatsApp groups, and email lists, we provide invaluable resources and technical assistance to members worldwide.

The Amateur Telescope Making (ATM) class has been a cornerstone since 1991, fostering a supportive environment for individuals pursuing their telescope-making projects.

Our Facebook group, "Telescope Making SA," continues to grow in membership, fostering a strong sense of community. Our commitment to promoting interest in astronomy is evident in the refurbishment and donation of telescopes to enthusiastic young individuals.

With 3D printing and innovative techniques, we continue to develop novel components, fostering a healthy level of activity and interest within our section.

Thank you Chris for leading this endeavour and empowering amateur astronomy through instrumentation.

ASSA Observing section

Under the Observing section, the "Southern Skies Quarterly" was developed as a platform to encourage interest in the night sky and share observations and imaging from ASSA members and the public.

While initially well-received, the submissions for the publication experienced a decline, partly due to challenging weather conditions and general apathy. Nevertheless, plans are in place for a 2nd edition in 2023, members are encouraged to contribute

Outreach efforts have been successful, with an astronomy evening at St Dominics in Newcastle attracting over 800 attendees. However, considering the workload and the declining support for "Southern Skies Quarterly," Director Angus Burns proposes several options, including resigning and supporting a new director.

Regardless of the decision, Angus remains committed to supporting ASSA within his time constraints. Thank you for your continued support and involvement in our observational endeavours.

Ask an Astronomer

I'm happy to share the summary of the Ask An Astronomer Report for the year 2023.

ASSA has been actively responding to and addressing 163 queries posted on our website, covering a diverse range of topics. While some of the questions posed were challenging, the majority were insightful and intriguing, reflecting the genuine interest and curiosity of our audience.

Among these queries, 20% were related to Astronomy careers, underscoring the growing fascination with pursuing professional paths in this field. As we continue to foster a deeper understanding and appreciation of Astronomy, we are committed to providing comprehensive and informative responses to all inquiries. Thank you Case in particular for your ongoing support and engagement in our Astronomical community.

Scholarships Committee

The Astronomical Society of Southern Africa is proud to administer two prestigious scholarships for studies in astronomy. This year, we received six eligible applications, and after careful consideration, the ASSA Scholarship was awarded to Adnaan Nauthoo, a brilliant BSc (Hons) student from Mauritius at the University of Cape Town.

Additionally, the Cooke Scholarship was presented to Carys Gilbert, a 3rd-year Physics / Astrophysics student, also at UCT. We are delighted to celebrate the accomplishments of our 2022 awardees, Adnaan Nauthoo and Gary Louw, both BSc graduates with distinctions in Astrophysics and other disciplines.

We extend our congratulations to the recipients and express our gratitude to all who contribute to the success of these scholarships. Thank you for your unwavering support in nurturing the next generation of astronomers.

Double and Variable Star Section

The section has been thriving with growing popularity in astronomy and variable star webinars, providing unique opportunities for interaction with specialists in the field.

Observations of variable stars have been extensive, with Berto Monard submitting 33 133 for an impressive total of 2,902,043 observations to the AAVSO. The author also contributed significantly, collaborating on published papers and actively posting early warnings of exciting astronomical events.

Talks on Variable Stars and DSLR photometry of eclipsing binary stars have enriched our knowledge-sharing efforts.

In recognition of a lifetime of contributions, the Director, Dave Blane, received the prestigious Overbeek medal.

I'd like to express my gratitude to Dave and all contributors and observers.

Photometry and Spectroscopy Section

Within the Amateur Spectroscopy domain, we have observed limited growth, with Percy Jacobs being the only active Amateur Spectroscopist in South Africa, actively contributing spectra to the AAVSO database and other platforms.

To date, Percy has submitted 535 published observations, demonstrating his dedication and commitment to this field. The AAVSO Spectroscopy Section, which began in November 2018, now encompasses data from 11,337 observations by 75 observers.

Percy has also actively shared his expertise through presentations to the ASSA Johannesburg Centre, and his publications in MNASSA have contributed valuable insights to the community. His willingness to guide and support newcomers in spectroscopy showcases the spirit of knowledge-sharing that defines our astronomical community. We are immensely grateful for Percy's contributions and look forward to fostering the growth of Amateur Spectroscopy in the future.

Conclusion

In conclusion, the various reports presented at the ASSA AGM in August 2023 showcase the dynamic and thriving nature of our Astronomical society.

From scholarship initiatives supporting aspiring astronomers to the dedicated efforts of various sections, such as Astrophotography, Cosmology, and Instrumentation, our members' passion and commitment to the field are evident.

The Double and Variable Star Section and the Photometry and Spectroscopy Section continue to contribute valuable observations and research, while the Ask An Astronomer platform fosters curiosity and engagement with the wider public.

Despite challenges and fluctuations in submissions, our dedication to promoting astronomy education, outreach, and exploration remains steadfast.

As we celebrate accomplishments and milestones, we also recognize the need to adapt and evolve to meet future opportunities and challenges.

Together, as a united community of Astronomy enthusiasts, we look forward to furthering our understanding of the cosmos and inspiring the next generation of astronomers.

Our collective efforts exemplify the spirit of curiosity, exploration, and collaboration that defines the Astronomical Society of Southern Africa. Thank you to all members, supporters, and contributors for making this journey a truly enriching and enlightening one. Here's to a bright and exciting future for ASSA and the awe-inspiring world of astronomy.

Incoming Council for 2023/24

Many thanks to Pierre for his work as Vice President and thank him for taking on the Outreach Director work..

Welcome Derek - Hermanus Chair - as the new Vice President sure to be President next August.

Many thanks to Eddy for all his effort as Membership Secretary and welcome Andre Bruton (all the way from George).

Welcome Jacques van Delft as Solar Director (from Bloem)

Ask for volunteers to assist Angus as Observing Director and Dave in Photometry and Spectroscopy.

2023 ASSA AGM: President's Address

Dr Daniel Cunnama

The primary focus of ASSA revolves around fostering and stimulating the exploration of Astronomy.

As my engagement with ASSA deepened over the past few years, I came to appreciate the immense potential of our network. It serves as a hub for remarkable events, discussions, and publications, including the Sky Guide and MNASSA, all contributing significantly to astronomical research.

Presently, Astronomy experiences a remarkable era, marked by the emergence of advanced telescopes such as JWST, SKA, and LSST, and South Africa takes the lead with noteworthy contributions from SALT, MeerKAT, and SKA. Moreover, we proudly anticipate hosting the prestigious IAU General Assembly in 2024.

The fortunate alliance with the government, exemplified by the Astronomy Geographic Advantage Act, investments in SALT and MeerKAT, and the recently devised National AstroTourism Strategy, provides invaluable support.

ASSA finds itself in a unique position, not only as a pillar of support but as an active driver of the future in astronomy. Our central role involves uniting South Africans, evoking excitement, imparting knowledge, and inspiring both upcoming astronomers and a curious and engaged public.

I eagerly anticipate ASSA's continued growth and its lasting impact on the trajectory of African Astronomy.

ASSA Member Numbers	2022	2023
Country Members	100	86
Honorary Members	13	13
Bursar Members	0	2
Associate Members (Botswana Astr. Society)	0	1
Garden Route Centre	42	28
Cape Centre	83	84
Hermanus Centre	56	51
Johannesburg Centre	62	96

Pretoria Centre	47	44
Durban Centre	138	68

ASSA to give focus on opportunities to increase ASSA memberships across Centres and Country Membership.

The number of members has dropped from 2022.

2023 ASSA AGM: Astrophotography Report

Martin Heigan

The ASSA Astrophotography Section and Optolong collaborated to host the "2023 Big 5 of the African Sky Astrophotography Challenge". Optolong sponsored Light Pollution Filters for the winners, and they were able to select from a range of filters that work the best with their Telescope and Camera.

Links to HR versions of the winning images of the "2023 Big 5 of the African Sky Astrophotography Challenge" on the ASSA Flickr Gallery are given below.



The Southern Pleiades

Winning image by Yolanda Combrink.



Omega Centauri

Winning image by Coenraad van der Merwe.



Eta Carinae Nebula

Winning image by Peter Dunsby.



The Coalsack Nebula

Winning image by Yolanda Combrink.



The Milky Way

Winning image by Dawie Venter.

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2023 ASSA AGM: Instrumentation Section Report

Chris Stewart

Activities of the Instrumentation Section continue to 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 is to address ASSA members' ad-hoc 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, activities in the following media are ongoing:

FaceBook pages

ASSA national FaceBook page

Telescope Making SA

Amateur Telescope Making

Telescope Making Class WhatsApp group

.IO group mail lists

The Section directly supports the needs of both ASSA members and the general public regarding selection, construction, purchase, maintenance and use of instrumentation. This is mostly done via the Amateur Telescope Making (ATM) class, the FaceBook pages, e-mail correspondence, telephonic discussion, and WhatsApp/SMS.

The distinctly South African “Telescope Making SA” Facebook group attracts members from around the world. International involvement produces an energetic flow of ideas, information, technical assistance and encouragement. Some of the (at times unusual) approaches to instrumentation developed locally have, after being highlighted in this medium, been favorably received and copied abroad. Prospective members are vetted prior to admitting them to the group and appropriate behaviour is gently but firmly enforced. At the time of writing, the Telescope Making SA Facebook page currently has 1,075 members, an increase of 59 since the last report. Since FB have restricted the more detailed information previously enjoyed, due to heightened data privacy legislation globally, it is no longer possible to provide a detailed breakdown of the demographic. The international “Amateur Telescope Making” group of which the author is also an administrator, currently boasts a worldwide membership of 8642.

The ATM class has been continuously active since July-1991, with expertise, materials and components freely shared for individuals’ projects. Physical classes are ongoing, subject to rare intermittent interruptions due to school activities where we meet. Members come and go according to their needs and available time, work at their own pace on individual projects, and sometimes return after a long hiatus dictated by personal circumstances. The class is run informally in a flexible manner to accommodate the vagaries of members’ lives. Consequently, there is no easy way to ascertain the actual numbers of people or projects engaged in at any one time. However, a handful of newcomers are making good progress on their first instruments, whilst others are continuing their projects. Membership of ASSA, whilst encouraged, is not a prerequisite for participation in the ATM class. A class register is kept as an indication of activity levels, but signing it is not enforced. Recorded attendance remains steady at 6-12 people per week. Apart from the Facebook interactions, there has been limited exchange of e-mails, phone calls and WhatsApp messaging.

Novel components continue to be produced, with 3D printed parts now the norm. Again, several eyepieces were constructed from salvaged optics and distributed pro bono to worthy candidates. Unfortunately supplies of such objects are dwindling, so anyone with “junk” optics of any kind is invited to donate same in order to continue supporting the community. An old 5-inch telescope on a basic equatorial mount was acquired, refurbished, and donated to an enthusiastic Girl Guide, where it is seeing use and helping to promote youthful interest in astronomy. A sophisticated Foucault tester is underway, sporting a high quality camera which should at times help in a group setting.

Overall, the foregoing indicates a continuing healthy level of activity and interest.