ANNUAL REPORT FOR ASSA:

SHALLOW AND DEEP SKY OBSERVING ENDING JULY 2025 DIRECTOR: COLIN STEYN

1 INTRODUCTION

With the passage of 17 months in the post as Director of Shallow and Deep Sky Observing herewith my second annual report.

2 OBSERVING HIGHLIGHTS

On the 26th of October 2024 14 members of ASSA: Bloemfontein attended the inauguration of the amphitheater at Sterland Observatory on Onze Rust Farm, Bloemfontein. Deep Sky observations and photographs were made of the Comet C/2024 S1 (Atlas), Lagoon Nebula (M8), Omega Centauri (NGC 5139), Centaurus A (NGC 5128), Tucana 47, Orion Nebula and the Silver Dollar Galaxy (NGC 253) with a 10 inch reflector telescope, 8 and 14 inch Schmidt Cassegrain telescopes as well as a See-Star 50 which took the most stunning photographs.

On the 3rd of November ASSA: Bloemfontein and the friends of Boyden Observatory and the Naval Hill Planetarium had an open evening at Boyden Observatory where the Summer Constellations were introduced to the public with laser pointers, an 8 inch reflector and the 13 inch refractor telescopes. The 16 inch reflector of ASSA: Bloemfontein were also cleaned up and opened up with great effect.

The second Star Party was held on 24 January 2025 at Sterland when 36 attendees of ASSA: Bloemfontein and the public viewed the parade of planets and Comet C/2024 G3 (Atlas). The event was a resounding success with the largest number of participants in 31 years according to Mr. Dawie van Jaarsveldt, chairman of ASSA: Bloemfontein.

The 24th of May marked the date of the latest Star Party held at Sterland, Onze Rust, attended by the Press in the person of Mr. Charles Smith of Media 24. This event drew 40 members of ASSA: Bloemfontein and the public and was reported in the Afrikaans Daily newspapers Die Burger, Die Volksblad and Die Beeld that following Monday 26 May 2025. The headlines read "Sterrekykers kom al hoe meer na S.A." with 3 accompanying photographs. The Butterfly Star Cluster (M6), the Butterfly Nebula (NGC 6302) and the Star Clusters M54 (extra galactic) and NGC 6231 (Scorpius Jewel box) were studied with 6 inch and 10 inch reflectors as well as 8 and 14 inch Schmidt-Cassegrain telescopes.

As was the case last year in June observations of the T Coronae Borealis was again commenced from Sterland as it is expected to Nova before the year is out. ASSA was alerted to this fact by means of a Shallow and Deep Sky Bulletin in July.

Future ASSA: Bloemfontein Star Parties at Sterland Observatory is set down for 20 September, 18 October, 15 November and 13 December.

3 SHALLOW AND DEEP SKY BULLETINS

The following bulletins were submitted, namely:

- 3.1 The Sculptor Group of Galaxies (NGC 55, 253, 300) and NGC 247 (in Cetus). December 2024.
- 3.2 Planetary Nebulae: Eskimo/Clown (NG 2392), Southern Ring (NGC 3132), Blue (NGC 3918) and Corvus (NGC 4361) Nebulae. March 2025.
- 3.3 Cosmic Collisions: the Antennae Galaxies (NGC 4038 and 4039) and the Lopsided Galaxy (NG 4027) in the Constellation of Corvus. April 2025.
- 3.4 Galactic Cannibalism: Sagittarius Spheroidal Dwarf Galaxy and M54 Globular Star Cluster (NGC 6715). May 2025.
- 3.5 Cosmic Light Houses in the Constellation Corona Borealis: T CrB and R CrB. July 2025.

4 PROJECTS

The close collaboration by ASSA: Bloemfontein with the University of the Free State, the Friends of Boyden Observatory and the Naval Hill Planetarium strengthened tremendously as the attendance figures attest to.

I will again strive to advance the interests of these entitles and ASSA to the best of my abilities the coming year.

5 INSTRUMENTATION

Due note should be taken of the preferred instrumentation to be used for observing Galaxies, Star Clusters and Nebulae as indicated in my five Shallow and Deep Sky Bulletins as they deliver the optimum results.

6 PUBLIC OUTREACH AND EDUCATION

Stargazing evenings at Sterland Observatory are introducing the public to the cosmos at an ongoing basis as all the guests at Onze Rust Restaurant have the opportunity, weather permitting, to view the Celestial wonders through a 10 inch reflector and a 14 inch Schmidt-Cassegrain.

The local farming community and workers also attended a Stargazing evening at the observatory on the 15th of October. Gotsofang primary school at Tierpoort will visit Sterland on 22 August. Two previous visits in December and May were cancelled due to transportation difficulties. Oranje Meisieskool (Grade 8) will visit on 23 January 2026. The Koppieskraal Farmers Association and Leeuwberg Rural Association visit Sterland observatory at an ongoing basis as the observatory is open every weekend for free, weather permitting.

7 CONCLUSION

I want to express my deepest gratitude to all who supported and guided me in my first year as Shallow and Deep Sky Director. It was a most rewarding experience and I hereby again give my solemn pledge to propagate, expand and advance the interests of ASSA in general and the Shallow and Deep Sky section in particular, to the best of my abilities in the coming year. It being an honour and privilege for me.

"Dwell on the beauty of life, watch the stars and see yourself running with them." Marcus Aurelius. The last of the five good Roman Emperors (161-180 AD).

Colin Steyn 28 July 2025