#### ANNUAL REPORT FOR ASSA: DEEP AND SHALLOW SKY OBSERVING ENDING JULY 2024

## DIRECTOR:

### Colin Steyn

(Vice chairman of ASSA: Bloemfontein and board member of the Friends of Boyden Observatory and the Naval Hill Planetarium).

### 1. INTRODUCTION

Since being appointed as Director Deep and Shallow Sky Sections under the Observing section in March 2024 I visited Sutherland SALT Complex on 8 April and the South African Astronomical Observatory (SAAO) on 12 April respectively where I made acquintances with Claudine Stuurman and Christian Hettlage (Chairman Cape ASSA). I now report on the activities of the past five months as follows –

### 2. <u>OBSERVING HIGHLIGHTS</u>

On the 7th of March 8 members of ASSA: Bloemfontein attended a Star Party at my Sterland Observatory at Onze Rust farm, Bloemfontein. Deep Sky observations and photographs of the Sombrero Galaxy (M104), Jewel Box (NGC4755), Omega Centauri (NGC5139), Centaurus A, Tarantula Nebula (30 Dorado), Golden Coin Galaxy (NGC4945) and Tucanae 47 (NGC104), were made with an 8 and 10 inch reflectors as well as a 14 inch Schmidt Cassegrain telescope.

The second Star Party by ASSA: Bloemfontein at the above mentioned site commenced on 4 May attended by 9 members and 6 members of the public. The following Deep Sky observations were made – the Devil Comet (12P Pons-Brooks), Golden Coin Galaxy (NGC4945), Orion Nebula (M42), Trifid Nebula (M20), Omega Centauri (NGC5139), Ptolemy's Cluster (M7), M87 (Black Hole) Galaxy, Butterfly Cluster (M6), Tarantula Nebula (30 Dorado) and the Sambrero Galaxy (M104). Photographs were taken by a ZWO Seestar S50 all-in-one telescope.

On the 11th of May assistance was given with the handling of the 8 inch reflector and 12 inch reflactor telescopes for the benefit of the public at the Boyden Observatory's Open Evening presented by ASSA: Bloemfontein, the Friends of the Boyden Observatory and the Naval Hill Planetarium and the University of the Free State. The Autumn Constellations and their Deep Sky objects were explained and observed. The evening was attended by 64 members of the public.

On the 2nd of June observations of the T.Coronae Borealis was commenced from Sterland Observatory as it is expected to Nova before September. ASSA was alerted to this fact with star charts and photos. The Free State Star Party from 6-10 June at Gansvlei, Brandfort was attended on the 7th where observations were made of the Scorpius Jewel Box (NGC6231), the Leo Triplet (N65,66 and NGC3628) and the Virgo Galaxy Cluster. Other Deep Sky objects of interest were G Scorpii and the Silver Nugget Cluster (NGC6441) which gives a wonderful distance perspective of the two objects (the former at 126 light years distance and the latter at 43000 light years).

The second Open Evening at Boyden Observatory presented by ASSA: Bloemfontein, the Friends of the Boyden Observatory and the University of the Free State was held on 13 July. Assistance was again given by me in pointing out and explaining the Winter Constellations to the public and view their Deep Sky objects with the 8 inch and 13 inch telescopes. The evening was well attended by 90 members of the public.

## 3. <u>PROJECTS</u>

Close collaboration by ASSA: Bloemfontein with the University of the Free State and the Friends of the Boyden Observatory and the Naval Hill Planetarium in the above mentioned evenings are growing by the year and attracting increasing numbers of the public. I strive to strengthen the bonds already existing between these two entities and ASSA. There remain two more open evenings at Boyden Observatory in September and December in which the public will be introduced to the Spring and Summer constellations where I will, Deo Volente, assist in similar manner. The AGM of ASSA: Bloemfontein on 31 August at Sterland will be followed up with a Star Party at the same location.

# 4. INSTRUMENTATION

ASSA: Bloemfontein was introduced by a new member to his ZWO Seestar S50 allin-one smart telescope and its amazing astrophotographic capabilities. Members should also enquire about Celestron's Origin smart telescope. Beginners in Astro photography, by means of their cell phones, should also enquire about Celestron's phone holder for telescopes as it gives very good results.

### 5. PUBLIC OUTREACH AND EDUCATION

Astronomy Evenings for the Koppieskraal Farmer's Association and the Leeuwberg Rural Association will be held at Sterland Observatory in September and December. Gotsofalo Primary School at Tierpoort will also visit Sterland Observatory in October in order to educate scholars in the study of astronomy.

### 6. <u>CONCLUSION</u>

I would like to express my heartfelt gratitude to everyone, especially Lerika Cross and Jacques van Delft, who supported me to find my way in my new post as Shallow and Deep Sky Director. I hereby give my solemn pledge to propagate, expand and advance the interests of ASSA in general and the Shallow and Deep Sky observing sections 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 Anrelius Roman Emperor

161-180 AD

Colin Steyn 23 July 2024