

**PRETORIA CENTRE OF THE  
ASTRONOMICAL SOCIETY OF SOUTHERN AFRICA  
ANNUAL REPORT JULY 2018**

This has again been an active and successful year.

The paid-up membership for the period July 2017 – June 2018 was 65.

Monthly meetings have been held as usual on the fourth Wednesday of the month, and still follow the format of previous years, with a Beginner's Corner, "What's Up?" and a main topic.

The average attendance for the year was ending June 2018 was 23.

The following main topics were presented.

2017 07	Nova searching with a DSLR	Jerome Jooste
2017 08	Spectroscopy	Percy Jacobs.
2017 09	Secrets of the Foucault test	Johan Smit.
2017 10	Relativity theory	Dr Sheldon Herbst.
2017 11	How to do planetary imaging	Clyde Foster.
2018 01	A video documentary about Elon Musk was shown	
2018 02	Telescopes - problems, solutions and compromises	Johan Smit
2018 03	Blue moons	Michael Poll
2018 04	Fundamentals of astrophotography	Dawie Venter.
2018 05	Report back on Stellafane	Chris Stewart
2018 06	Observing and measuring Alpha Centauri.	Neville Young

**Beginner's Corner** has been presented this year by: Nigel Rotherham, Michael Poll, Danie Barnardo, Johan Moolman, Bosman Olivier.

**The topics covered** were: Plate solving; The Equation of Time; Introduction to Pluto; Lunar Geology; The Sun; Classification of Nebulae; SETI; The Celestial Sphere.

**"What's Up?"** has been presented by Michael Poll, Danie Barnardo, Johan Smit, Percy Jacobs, Pierre Lourens, Bosman Olivier, Michael Moller.

**Meetings have been chaired by:** Fred Oosthuizen, Michelle Ferriera, Michael Moller, Johan Smit, Bosman Olivier, Danie Barnardo

The Centre thanks all these speakers for their contributions. Thanks go to those people who chaired the meetings, and dutifully submitted reports to the newsletter. Thanks are also due to those who make the running of our monthly meetings a success

### **Monthly Observing Evenings**

These evenings have been reasonably well attended. Four of the evenings were clouded out, including 3 out of 6 evenings in 2018. The average attendance on non-cloudy nights was about 15. For the last three months we have welcomed 14 third year medical students from Sefako Makgatho University who are doing an astronomy module under the tutelage of Neville Young. No formal log of objects observed is kept but as many as possible are recorded in the "Observing Evening Report" in the newsletter.

### **Activities during the year**

A number of activities were mounted during the year, including outreach to schools and the general public. Presentations to other organisations are being done by the Centre in the interests of the promotion of astronomy, and willing donations from the institutions go towards Centre funds.

**2017 July 22<sup>nd</sup> – 23<sup>rd</sup>** **Deelfontein Dark Sky weekend.** Frikkie le Roux, Johan Moolman, Michael Poll, Johan Smit, Percy Jacobs, Wessel Nel, Matteus attended.

**2017 August 11<sup>th</sup>** **Tiegerpoort**  
Successful with clear sky. Johan Smit, Percy Jacobs, Bosman Olivier, Nigel Rotherham Rudolph Strydom, & Neville Young attended

**2017 August 12<sup>th</sup>** **Dinokeng Korwe Lodge: Melissa Lotter Tshwane University of Technology**  
Danie Barnardo and Michael Poll attended. About 15 people.  
Talk and viewing before & after supper.

- 2017 August 17<sup>th</sup>**      **Colbyn Bowling Club**  
About 100 people. Light pollution talk by Johan Smit.  
Michael Poll, Percy Jacobs, Danie Barnardo, Rudolph Strydom, Fred Oosthuizen, & Anton Grobler attended. Danie & Percy were pictured in the Rekord.
- 2017 August 25<sup>th</sup> -26<sup>th</sup>** **Voortrekker Astronomy Badge**  
Johan Smit & colleagues from Johannesburg Centre.
- 2017 August 31<sup>st</sup>**      **Laerskool Bakenkop** Johan Smit gave talk before viewing.  
Johan Smit, Bosman Oliver, Percy Jacobs, Rudolph Strydom, Michael Poll, Anton Grobler attended. There were at least 100 persons.
- 2017 Sept 18<sup>th</sup>**      **Hoerskool Waterkloof Bela Bela** About 150 boys  
**Bosman Olivier, Michael Poll & Johan Jordaan attended.**  
Cloudy & not successful. Michael Poll gave an impromptu talk.
- 2017 September 20<sup>th</sup>**      **Hunters Association Rietvlei Dam**  
About 150 people. Johan Smit gave a talk. Percy Jacobs, Rudolph Strydom, Bosman Oliver & Anton Grobler also attended.
- 2017 Sept 22<sup>nd</sup>**      **Boys High Science Club**  
Michael Poll presented a talk: "The Birth, Life & Death of Stars".
- 2017 Sept 29<sup>th</sup>**      **Koedoesrand Akademie at CBC:** about 50 primary school children from a school at Baltimore, Limpopo. Fred Oosthuizen, Michael Poll & Percy Jacobs attended.  
Event arranged by Fred Ooshuizen as PRO  
Cloudy, but showed Moon & Saturn and explanation about telescope making
- 2017 October 4<sup>th</sup>**      **Boys High Mathematics Camp.** Johan Smit, Michael Poll, Percy Jacobs, Rudolph Strydom & Anton Grobler attended. Successful evening.
- 2017 October 14<sup>th</sup>**      **ASSA / ESSA Bushtrails Magaliesberg**  
In association with Johannesburg Centre. Attended by Johan Smit, Johan Jordaan, & Waldo Koen.    Quite good viewing, seeing got worse, but better later.
- 2017 October 24<sup>th</sup>**      **New Hope School** About 50 attendees. Johan Smit gave talk.  
Michael Poll, Percy Jacobs, Danie Barnardo, Anton Grobler, Rudolph Strydom also attended. Successful, cloud early on cleared for long enough to view Saturn.
- 2017 October 27<sup>th</sup>**      **Shekinah.** Bosman Oliver & Johan Jordaan. Cloudy. A talk was given.
- 2018 April 20<sup>th</sup>** **Clearwater Fly Fishing Estate** Cloud cleared later. About 20 attendees.  
Johan Smit, Bosman Oliver, Dawie Venter & Anton Grobler attended.
- 2108 June 2<sup>nd</sup>**      **Pretoria Zoo** About 400 people present. Michael Poll gave a naked eye tour of the sky.  
Johan Smit, Michael Poll, Rudolph Strydom, Percy Jacobs & Anton Grobler and Etsou Takayanagi attended.
- 2018 June 8<sup>th</sup> - 10<sup>th</sup>**      **Free State Star Party.** Andy Overbeek, Johan Smit and Rudolf Strydom attended.  
Also present were Bill Potgieter and Etsuo Takanayagi from the ATM class. Like the previous year it was very cold at night, with excellent star gazing skies. The Free State members made us feel very welcome and it is still one of the best star parties to attend. Well organised with suitable accommodation at a very reasonable cost.
- 2018 June 16<sup>th</sup>**      **Northern Star Party Deelfontein.** Percy Jacobs, Bosman Olivier, Michael Poll, Johan Moolman & Rudolph Strydom attended

## **Section Reports**

### **Telescope Making Class, including ScopeX : Johan Smit**

Johan Smit and Percy Jacobs serve as permanent instructors at the class. Not many projects were completed by Pretoria members this year, but activity from Johannesburg has picked up well. An "international" member, Etsuo Takanayagi, a science teacher at the Japanese school, has joined the class and has participated in many of our activities since then.

At ScopeX in September 2017 Percy Jacobs was awarded a prize for his Hydrogen-Alpha solar scope and Spectroscope.

A formal relationship has been established with Stellafane in the USA. At the Stellafane convention in 2017 Chris Stewart accepted 5 awards in special categories for designs unique to our telescope making class.

### **Curator of instruments: Johan Smit**

There is little to report on the use of our 12 inch Newtonian in the dome at CBC. Because of fact that the dome rotation and slit bearings need maintenance it is very difficult to use the dome effectively. Once the dome drive bearings and slit drive are serviced, I look forward to us using our main telescope again regularly. This, and the fact that it is more social to use telescopes outside, resulted in the observatory just being opened on request and then just to show everyone what an observatory looks like inside. Otherwise the system remains viable.

Space has been created in the dome by placing our 12 inch Meade telescope at our regular dark sky site at Deelfontein.

### **Library: Danie Barnardo.**

The Library functioned very well this past year. At the Centre Wednesday meetings the Library was opened and manned. The Library database is continuing to function extremely well and is stable. It simplifies the loan of Library books and keeps a decent record of transactions. The Library database is also available on the Pretoria Centre website and can be searched by users. The online library database is still a unique feature of the Pretoria Centre Library.

The Library needs to address the acquisition of new books to add to the collection during the coming year. It is noted that use of the library is on the decline as a result of the availability of a vast amount of reference material and information on the Internet.

### **Website: Danie Barnardo**

The website is functioning as planned. It is possible to contact the Committee members via the website, eliciting several queries to Committee members during the year. The website proved extremely useful for the advertisement of the Kambro weekend and other Centre meetings during the year. A website section to advertise used equipment remains popular.

Compliments for the look and functionality of the website are frequently received and it is generally expressed that the website is fulfilling its role admirably.

The Archive section of the website contains all newsletters since 2004. An initiative to add older newsletters to the Archive was undertaken during the year and newsletters as far back as 1988 are now available on the website's archive section.

The website is hosted by Afrihost, who provides a reliable service.

The table below contains information on monthly access to the website and shows the monthly use of the website. What is interesting to note is that more pages are accessed from the USA than from South Africa. Thanks to Johan Smit for providing this information. Johan is also thanked for taking care of e-mail management. **(See table with statistics at the end of the report)**

### **Newsletter Editor: Pierre Lourens:**

In most months the Newsletter was sent out before the monthly viewing evening. In a few cases, it was sent out later, but always before the monthly meeting.

### **Observations Co-ordinator Percy Jacobs**

The year has been rather slow and low on observing activity. As to the ASSA 100 Project, we currently have 2 active observers – Michael Poll & Neville Young. Michael has a few more to go to reach completion. Neville has just started and working his way through the list.

Barbara Cunow & Johan Moolman submitted images of the Partial Lunar Eclipse of August 7<sup>th</sup> 2017. Neville Young (& Michael Moller) submitted a detailed observational report of Nova Carina ASASSN – 18fv on the 28<sup>th</sup> March 2018. Barbara Cunow also submitted images of this Nova.

Barbara Cunow also completed imaging & labelling the complete Bennet Catalogue and submitted this list on October 16<sup>th</sup> 2017 and it was shown at our monthly meeting. Well done to Barbara for this special effort and presentation of images.

Lastly, thanks to Johan Moolman who continued entertaining & providing motivation to our members with his constant submission of deep sky images.

### Private events policy

The committee formulated a private events policy during the year, whereby private individuals who approached the Centre for viewing evenings would be referred to members who had stated that they would do viewing in their private capacity, and not under the auspices of the Centre. Any such requests would be passed on to such members on a rota basis.

### Committee

The committee comprised 9 persons after the last AGM. The Committee met 5 times during the year. Thanks go to all the committee members for their support and for helping the Centre to remain active. We are fortunate to have obtained quality outside speakers for the main topics, and thanks are due to those committee members who were able to make contacts. It is noted that finding suitable speakers is becoming a problem, and any contribution from the membership is always welcome.

### Thanks

#### **Christian Brothers College**

We are, as usual, grateful to Christian Brothers College for allowing us the use of the Auditorium and classroom. Some members of the Committee had a meeting with the new Principal, Bernard Langton in May 2017. Mr Langton was most interested and enthusiastic about CBC interacting with the Centre and we subsequently held a viewing evening at the CBC "Camp out" on May 20<sup>th</sup>.

Mr Langton was to put us in touch with two or three teachers who may be interested in being a contact person with the Centre. We await further developments in this respect. Mr Langton also said that they would put a link to the Centre website on their own website. The Centre will continue to send a complimentary newsletter to CBC.

Thanks are due to all others, who may have not been mentioned, who contributed to the successful activities of the Centre during the year .

Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Jul-17	1,045	1,536	4,885	22,620	1.79 GB
Aug-17	1,242	1,833	5,459	29,130	1.69 GB
Sep-17	960	1,391	4,210	23,419	1.86 GB
Okt-17	1,032	1,601	5,340	24,844	2.39 GB
Nov-17	966	1,358	4,106	15,874	1.95 GB
Des-17	936	1,345	4,042	16,126	1.89 GB
Jan-18	842	1,282	4,520	20,456	2.00 GB
Feb-18	801	1,295	4,870	19,252	1.22 GB
Mrt-18	789	1,375	7,780	20,436	1.45 GB
Apr-18	791	1,411	4,654	18,574	1.69 GB
Mei-18	770	1,406	4,292	16,774	1.26 GB
Jun-18	667	1,257	4,196	21,582	1.48 GB

#### 2018 by country

Locales		Pages	Hits	Bandwidth
United States	us	12,576	30,035	2.33 GB
South Africa	za	11,302	72,169	3.83 GB
Mauritius	mu	1,414	2,034	38.69 MB
Indonesia	id	452	2,156	64.27 MB
Canada	ca	378	880	127.18 MB
Great Britain	gb	368	1,520	84.74 MB
India	in	356	452	24.03 MB
France	fr	354	498	40.84 MB
Morocco	ma	304	594	27.75 MB
Netherlands	nl	274	618	105.16 MB
Germany	de	270	1,216	466.54 MB