

**PRETORIA CENTRE OF THE**  
**ASTRONOMICAL SOCIETY OF SOUTHERN AFRICA**  
**ANNUAL REPORT July 1<sup>st</sup> 2019 – June 30<sup>th</sup> 2020**

This has been a year disrupted by the Covid Virus lock down. No formal monthly meetings have been held since the February 2020 meeting. The March and April monthly meetings were cancelled. In May and June, meetings were held by video call, Johan Smit organised these via Webex.

The paid up membership for 2019 -2020 was **48**

The average attendance for the formal meetings held was **25** (2019 average **25**).

**The following main topics were presented.**

2019 07	Celebration of the first visit to the Moon by humans : July 1969. Frikkie Le Roux, Michael Poll, Neville Young and Francis Thackeray
2019 08	Physical properties, exploration and geology of Venus Danie Barnardo.
2019 09	History of the Radcliffe Observatory Dr Francis Thackeray.
2019 10	1919 curved space experiment Neville Young.
2019 11	Exploration of Mars Pierre Lourens.
2020 01	The Helderberg air disaster: conspiracy, accident or design error? Prof André Buys.
2020 02	Telescopes - what we see and how we see it. Johan Smit
2020 03	Meeting cancelled
2020 04	Meeting cancelled
2020 05	Video call : Beginners Corner : Percy Jacobs. What's Up: Louis Kloke
2020 06	Reminiscing : Pretoria ASSA Through the Years Percy Jacobs, Michael Poll, Neville Young, Danie Barnardo

**Beginner's Corner topics and presenters were:**

2019 08	Feedback from the 2019 Karoo Star Party	Johan Moolman
2019 09	A computer controlled mounting	Johan Smit.
2019 10	Transits of Mercury	Michael Poll.
2019 11	The history of the telescope	Craig Kloke.
2020 01	Geomagnetic reversal and its possible impact on life.	Fred Oosthuizen.
2020 02	Discoveries by amateurs	Michelle Ferreira.
2020 05	A journey through the observational Universe	Percy Jacobs
2020 06	3D Designing and Printing in Astronomy	Craig Cloke

“What's Up?” has been presented by Michael Moller, Johan Smit, Michael Poll, Craig Cloke, Louis Cloke

**Meetings have been chaired by**

Johan Smit, Bosman Olivier, Michelle Ferreira, Louis Kloke, Michael Moller, Craig Kloke, Pierre Lourens

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. Report by Michael Poll**

The observing evening season started well, for, as well as visitors and members, we also welcomed a group of students from Sefako Makgatho University on some occasions. The latter are third year medical students who are doing an astronomy module as an interest subject in a course organised and presented by Neville Young. Johan Smit brought along an assortment of telescopes, at times it seemed as if he had constructed a new one every month.

There were about 15 attendees in **July**, and we had a clear evening. Some of the students were encouraged to interact with visitors. We showed planets (Jupiter and Saturn); clusters (open and globular); the Moon (rising later); and discussed movements of the Moon; and the Sun at the June solstice; The **August** sky was full of end-of-winter dust, even the visibility of Delta Crucis (magnitude 2.8) was marginal, but we showed Alpha Crucis and Alpha Centauri as examples of double and multiple stars.. We did some naked eye observing, discussed the constellations, by reference to the Skymap. We looked at Jupiter and Saturn, and discussed distances and the speed of light. **October** brought cloud and one attendee. We do commit to having someone at

the venue whatever the weather, as visitors do often turn up, although they are generally realistic about what may or may not be seen. There are always things to talk about and telescopes to show and discuss. The **November** observing evening produced total cloud again. There were two members and two visitors. We talked about January sunset times, noting that they change very little during the month. **January** was a similar cloudy story - there was not quite total cloud but it was bad enough. There were about 10 attendees. We saw a few bright objects through the occasional sky hole - Venus, and the bright stars of Orion, although these were mostly one at a time. **February** was even cloudier than January, and only four people attended, so we got back to explaining how to use a star chart. We did see *one* star through the *one* sky hole, so we could show *one* example on the star map. **March 2020** brought The Virus which ended the observing evenings for the season.

### 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 done by the Centre in the interests of the promotion of astronomy, and willing donations from the institutions go towards Centre funds.

**2019 May 11<sup>th</sup> Craig Kloke Church Group** Percy Jacobs, Michael Poll, Johan Smit and Rudolph Strydom attended. About 50 attendees. Michael Poll gave talk about the use of the Skymap. Louis stated that there had been positive feedback from those attending.

**2019 May 17<sup>th</sup> – 18<sup>th</sup> Johannesburg Voortrekkers** Johan Smit and Etsuo Takayanagi gave Astronomy Badge Training.

**2019 May 30<sup>th</sup> – June 2<sup>nd</sup> Karoo Star Party** About 20 Centre members present & 10 from West Rand.

**2019 June 28<sup>th</sup> – 30<sup>th</sup> Free State Star Party** Johan Smit, Rudolph Strydom, Etsuo Takayanagi & Bill Potgeiter (ATM class) attended. Not too cold!

**2019 July 5<sup>th</sup> Clearwater Estate** Bosman Olivier & Johan Jordaan attended, about 20 attendees.

**2019 July 6<sup>th</sup> Mountain Club of SA at Wilgepoort, Bronkhorstspuit.** Percy Jacobs, Michael Poll, Bosman Olivier, Danie Barnardo & Chris Curry attended. About 50 attendees. Percy spoke about the Skymap. Some non- members of MCSA came as well out of interest. Requested for a repeat in 2020.

**2019 July 6<sup>th</sup> Japanese School, Johannesburg.** Johan Smit, Etsuo Takayanagi, Rudolph Strydom, & Bill Potgeiter attended. It was “A pleasure to interact with disciplined children”.

**2019 August 7<sup>th</sup> Laerskool Die Krans, Lydiana** Johan Smit, Bosman Olivier, Danie Barnardo, Rudolph Strydom, Frikkie le Roux, Michael & Amadeus Fidos attended. About 100+ attendees: parents & children. Children had some knowledge, including names of planets, from school curriculum. The school made a donation to Centre funds.

**2019 August 23<sup>rd</sup> – 25<sup>th</sup> Voortrekkers Bronkhorstspuit.** Johan Smit & Rudolph Strydom attended. Sleepover and meals were provided. There was stargazing on Friday and talks on Saturday - all in training for the Astronomy Badge.

**2019 August 31<sup>st</sup> Pretoria Zoo** Percy Jacobs, Michael Poll, Bosman Olivier, Michelle Ferreira, Danie Barnardo, Rudolph Strydom & Johan Jordaan attended. There were about 200 – 300 attendees. Michael Poll gave Skymap talk. SAASTA provided a mobile planetarium

**2019 September 14<sup>th</sup> Scopex** Bosman Olivier, Johan Smit, Percy Jacobs, Michelle Ferreira and Neville Young attended. Public attendance may have been less than usual but the observing in the evening was busy – ended after 9.30 pm.

**2019 October 19<sup>th</sup>. ESSA /ASSA at Magaliesburg** Johan Smit and Johan Jordaan attended, together with members from Johannesburg. 40+ attendees. Weather cloudy early on, cleared later.

**2020 March 13<sup>th</sup> Irene Brownies.** MP attended. Mostly cloudy but successful and appreciated. Showed Stellarium on screen. Did get a look at a few stars naked eye and the Moon in the telescope.

### Section Reports

#### **Library Danie Barnardo. (& Craig Cloke)**

The Library functioned very well this past year. At Centre Wednesday meeting 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 ASSA Pretoria Centre website and can be searched by users. The Library database currently contains information on 277 publications, as well as details of a number of additions during the year, including an atlas of Herschell objects. The online library database is still a unique feature of the ASSA Pretoria Centre Library.

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 and proved extremely useful for the advertisement of the Kambro weekend and other Centre meetings and events during the year, as well as details of monthly meetings. A website section to advertise used equipment remains extremely popular and seems to function very well, according to reports from users.

The Observation Section page of the website was extensively re-designed to include observations by members and also contains useful information to facilitate observation.

The Archive section of the website contains all newsletters as far back as 1988 and continues to be updated on a monthly basis. the website is hosted by Afrihost, who provides a reliable service.

The table contains statistics of usage and other interesting figures.

Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Jul-19	559	1,127	3,285	12,113	921.54 MB
Aug-19	566	1,139	4,175	15,050	1.95 GB
Sep-19	485	907	2,812	10,346	1.12 GB
Oct-19	467	748	2,163	10,475	1.75 GB
Nov-19	381	679	2,258	11,317	2.54 GB
Dec-19	357	715	2,391	10,499	2.66 GB
Jan-20	435	913	3,124	11,830	2.18 GB
Feb-20	446	760	2,463	12,535	3.47 GB
Mar-20	429	728	2,103	9,575	2.54 GB
Apr-20	347	542	1,584	7,401	1.99 GB
May-20	374	594	1,944	9,722	3.60 GB
<b>Jun-20</b>	292	476	1,538	4,248	2.74 GB

**Top 10 downloads**

	2020
/pdf/observing_targets.pdf	79
/images/comet_swan_10_05_2020.mp4	78
/pdf/assa_pta_2020_program.pdf	70
/pdf/deepskycompanion.pdf	57
/images/keplers_1st_law.mp4	39
/pdf/symposium_2010_report.pdf	32
/pdf/newsletters_july_2008.pdf	28
/images/keplers_3rd_law.mp4	26
/South_West.mp4	24
/images/comet_swan_2020.mp4	22

**Top 3 pages**

	2020
/	756
/index.htm	265
/adverts.htm	68
/observationguidelines.htm	45

**Newsletter Editor:**

**Pierre Lourens:**

**Annual report 1 July 2019 – 30 June 2020.**

- **The newsletter was written for each month (except December), which makes a total of 11 issues.**
- **Most issues contained the following regular items. The exceptions are listed below.**

1. Astronomy-related articles on the Internet.
2. Astronomy-related images and video clips on the Internet.
3. Astronomy basics.
4. Observing.
5. NOTICE BOARD.
6. Pretoria Centre committee.
7. Summary of coming presentation under “What’s Up?”.
8. Previous month’s observing evening report.
9. Chairman’s report for previous monthly meeting.
10. Feature of the month.

- Exceptions due to members failing to submit their contributions after requests to do so.

1. For the issues of the following months, no “Summary of the next “What’s Up?”presentation” was included. August 2019. January 2020.

2. For the issues of the following months, no “Previous month’s observing evening”report was included. October 2019.

• **Exception due to no meetings (real or virtual) in March and April 2020.**

1. For the issues of the following months, no “Summary of the next “What’s Up?” presentation” was included. March 2020. April 2020.

2. For the issues of the following months, no “Chairman’s report for previous monthly meeting” was included. April 2020. May 2020.

• **Exception due to no observing evenings in March 2020, April 2020 and May 2020 as a result of the epidemic.**

For the issues of the following months, no “Previous month’s observing evening” report was included. April 2020. May 2020. June 2020.

• **Exception due to time pressure on the editor:**

In the September 2020 issue, no “Astronomy-related images and video clips on the Internet” was included.

• **Apart from the regular items listed near the top of this document, the following items were additionally included in newsletters.**

In the July 2019 and August 2019 issues, astrophotos & other photos were included.

In the September 2019 issue, other photos were included.

In the October 2019 and November 2019 and April 2020 issues, astrophotos were included.

In the February 2020 issue, an article titled: “Determination of the Earth-Sun distance using the transit of Mercury on 11 November 2019” was added.

In the March 2020 issue, an ad advertising astronomy equipment was added.

• **All 11 issues of the newsletter were sent to members each month before the monthly meeting.**

Whenever the newsletter was finished, it was sent to members.

This was mostly done before the observing evening, but in some months this was only done after the observing evening, but before the monthly meeting. The reason for this was always late submission of contributions by members.

A long article comprised of astrophotos and text by Johan Moolman was not included in the June newsletter, but sent as a separate addendum to the June newsletter to members.

• **Complimentary copies of all 11 issues of the newsletter were sent to persons on a list of recipients. The long article comprised of astrophotos and text by Johan Moolman was also sent as a separate addendum to the June newsletter to the persons on the list.**

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

There was an upsurge of interest after Scopex, although activity ebbs and flows. Newcomers are advised of the commitment required. Late in 2019 a few members were busy polishing and were expected to finish soon. By January 2020 there were three newcomers including one from Pretoria. During the year Johan Smit finished making a 6” telescope mounted on a new design of tracking table.

**Curator of instruments:**

**Louis Kloke (& Johan Smit)**

The main task outstanding is to service the dome for the Centre 12” to make it operational.

The telescope donated by Brian Fraser is being refurbished by Johan Smit and Bill Potgeiter  
Craig Kloke donated a focuser.

**Observations Co-ordinator conducted by Percy Jacobs Michael Moller and Louis Kloke**

During the year Michael Moller resigned from the Committee due to pressure of work and Louis Kloke took his place.

An observing What’s app group has been formed and is active.

The section would like more people to do the ASSA 100.

We continue to add to the Pretoria Asterism Catalogue.

- Barbara Cunow submitted observations of the Mercury transit.
- There was a successful joint effort with some French photographers to record the Transit.

Other observations can be found on the Centre website

**Committee**

The committee comprised 11 persons after the last AGM. Bosman Olivier was elected Chairman. Thanks were made to Johan Smit at the conclusion of his term of office.

We were pleased to welcome Craig and Louis Kloke on to the Committee. Michael Moller resigned in October 2019, due to pressure of work. The resignation was accepted, and the Chairman thanked Michael for

his contributions towards the activities and administration of the Centre. Thanks are due to Michael Moller and later Craig and Louis Kloke for making available a venue for Committee Meetings.

We note with regret that Fred Oosthuizen did not wish to be considered for the Committee for 2020-2021. Fred has been a member of the Committee since 2005, and he is thanked for his services to the Centre

We are fortunate to have obtained some 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 for our formal meetings, and the playing fields for our viewing evenings.

#### **Other**

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

Bosman Oliver (Chairman, ASSA Pretoria Centre)