

**PRETORIA CENTRE OF THE
ASTRONOMICAL SOCIETY OF SOUTHERN AFRICA
ANNUAL REPORT July 1st 2021 – June 30th 2022**

This was another year disrupted by Covid. All our meetings have been by video link. It has not been easy to find speakers this year, and some of the presentations were prepared at short notice. Offers of talks are always welcome.

Average attendance at the video link meetings has been around 22.

The following main topics were presented.

- 2021 07 “The Earth is Flat” by Neville Young.
 Neville also discussed “Repairing a Canon 6D Astro cooled camera”.
- 2021 08 “Global warming” by Danie Barnardo.
- 2021 09 Video entitled: "Why is the Universe the same everywhere?"
- 2021 10 " Life and Times of Edmund Halley " by Michael Poll.
- 2021 11 "The James Webb telescope" by Johan Smit.
 Neville Young discussed the orbital characteristics and visibility of Comet Leonard
- 2022 01 “A tale of three 3D printing machines and which ones would I use to make telescope parts” by Craig Cloke.
- 2022 02 Video shown about the life of Vera Rubin.
 The video presenters were Jaqueline and Simon Mitton
- 2022 03 “Aspects of the cosmos” by Derek Duckitt, of the Hermanus Centre of ASSA.
 Three YouTube videos were shown.
- 2022 04 “Impact Craters re-visited” (Part 1) by Michael Poll
- 2022 05 “Inspiration and Engagement through Astronomy” by Dr Daniel Cunnama
 Science Engagement Astronomer: SAAO. Incoming President of ASSA.
- 2022 06 Johan Smit. “Stellar Evolution”

Meetings have been chaired by:

Bosman Olivier, Johan Smit, Louis Kloke, Pierre Lourens, Danie Barnardo, Craig Kloke and Michael Poll.

Thanks are due to those who Chaired the meetings.

Observing Evening Report Michael Poll

Observing evenings were in abeyance because of limits on gatherings, and in any case we were not able to use the CBC grounds. Informal discussion events have been held on the evenings that we would have been observing. Attendance was not always high, but there were many stimulating discussions.

Section Reports

Library: Danie Barnardo.

The Library together with the monthly meetings and viewing evenings, were unable to function this past year, as a result of the Covid pandemic. Despite the recent slackening of Covid regulations, we are still not allowed on the premises of CBC Mount Edmund, where our Library books are kept.

Website: Danie Barnardo

The website is functioning as planned and proved extremely useful for the advertisement of the Kambro weekend and other Centre events during the year, as well as details of monthly meetings. A website section to advertise used equipment was not so often used as usual, but seems to function well, according to reports from users.

The Observation Section page of the website remained very popular with users and new content is added from time-to-time.

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 below contains statistics of usage for the past year. Thanks to Johan Smit for this information and providing help with the e-mail web functions to committee members.

Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Jan 2022	508	664	1,975	5,859	798.34 MB
Feb 2022	393	511	1,426	4,634	1.57 GB
Mar 2022	407	540	1,055	3,041	568.65 MB
Apr 2022	340	454	641	1,761	408.20 MB
May 2022	350	474	756	2,637	402.82 MB
Jun 2022	305	414	654	2,412	383.21 MB
Jul 2022	0	0	0	0	0
Aug 2022	0	0	0	0	0
Sep 2022	0	0	0	0	0
Oct 2022	0	0	0	0	0
Nov 2022	0	0	0	0	0
Dec 2022	0	0	0	0	0
Total	2,303	3,057	6,507	20,344	4.07 GB

Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Jan 2021	378	591	1,801	6,523	1.05 GB
Feb 2021	374	623	2,921	6,491	1.10 GB
Mar 2021	436	725	3,019	7,485	1.17 GB
Apr 2021	412	698	2,417	8,169	1.30 GB
May 2021	483	748	3,620	7,625	663.54 MB
Jun 2021	497	773	2,385	6,548	572.47 MB
Jul 2021	447	594	1,933	4,537	514.16 MB
Aug 2021	448	654	2,162	7,022	898.09 MB
Sep 2021	299	492	1,920	6,322	1022.11 MB
Oct 2021	287	440	1,659	4,739	480.95 MB
Nov 2021	350	500	1,595	4,071	512.68 MB
Dec 2021	393	543	1,456	4,363	847.69 MB
Total	4,804	7,381	26,888	73,895	10.00 GB

Locales (Top 25) - [Full list](#)

Locales		Pages	Hits	Bandwidth	
United States	us	10,110	21,538	3.83 GB	
South Africa	za	7,840	29,749	1.94 GB	
Ukraine	ua	2,206	2,246	64.47 MB	
Sweden	se	1,486	1,572	62.91 MB	
Indonesia	id	1,273	7,810	595.78 MB	
Russian Federation	ru	531	772	195.93 MB	
Great Britain	gb	380	988	440.65 MB	
China	cn	365	687	233.02 MB	
Germany	de	288	1,701	927.30 MB	
Canada	ca	286	560	153.45 MB	
India	in	268	450	222.57 MB	
France	fr	199	449	138.19 MB	
South Korea	kr	162	418	6.77 MB	
Greece	gr	114	134	14.68 MB	
Italy	it	92	156	20.61 MB	

Seychelles	sc	88	156	64.64 MB	
Netherlands	nl	76	121	19.31 MB	
Morocco	ma	62	516	31.20 MB	
Czech Republic	cz	60	436	108.91 MB	
Switzerland	ch	52	194	21.75 MB	
Vietnam	vn	52	56	8.89 MB	
Poland	pl	52	158	11.67 MB	
Mauritius	mu	48	390	67.12 MB	
Romania	ro	46	66	26.25 MB	
Japan	jp	46	308	119.08 MB	

Newsletter Editor: Pierre Lourens

Information extracted by Michael Poll

“What’s Up?” has been written in the newsletter by Michael Poll, Johan Smit and Danie Barnardo

Contributors to the Newsletter included

Magda Streicher

- A Double Bubble like no other - planetary nebula NGC 2371-2
- The galaxy NGC 6217
- A dark ring galaxy - NGC 1199
- A strange nebula - IC 2497
- A phenomenal nebula - NGC 1788
- A southern double cluster - NGC 2477 and NGC 2451
- Gazing back - NGC 3169 and NGC 3166
- Two deep sky cosmic friends - NGC 4298 and NGC 4302:
- Galaxy box in the Cosmos - Galaxies NGC 4173, NGC 4169, NGC 4174 and NGC 4175
- Capella’s two neighbours - Berkeley 14 and Berkeley 15,
- The famous Orion Nebula

The editor notes that Magda has been regularly sending articles about observation for the newsletter since September 2014. Magda is gratefully thanked for her contributions

Johan Moolman

- NGC 2467 the “Skull and Crossbones” nebula

- The magnificent four of winter evenings
- “Psychedelic Canopus”
- The “Little Red Hamburger”, the Markarian Chain and the Kambro Smiley Face
- Lunar eclipse images 16 May 2022

Pierre Lourens

- Cosmic filaments
- Lucy: NASA’s mission to asteroids
- The James Webb Space Telescope
- Abell 3667

Neville Young

- Described the repair of two Canon 6D cameras

Michael Poll

- Aspects of Mercury’s orbit that determine its visibility
- Conjunctions of Venus and Jupiter

Telescope Making Class, including ScopeX : Johan Smit

Late in 2020 the telescope making class resumed activities, so the last year we were active as normal. Some people who were busy with projects returned and continued working. During this period the class also celebrated its 30th birthday. This achievement makes our class one of the most active in the world. Completing telescopes seem to be more of a challenge as in the past. There are regular enquiries from prospective students as well as visits to the class, but uptake of new projects are sadly very slow.

I get the impression that people in general do not do manual work as much as in the past, not even as a hobby. Despite this there is a core of people that actively keep the class going. From Pretoria we thank Percy Jacobs for his support and guidance provided to students.

And at last Johan Jordaan did finish a 6” telescope. The mirror was acquired from an abandoned project and used to make the telescope.

During this last year Chris Stewart designed some eyepieces that used scrapped binocular optics. Some fine examples were the result. I designed and printed bodies for these and about 30 eyepieces were made and distributed to deserving candidates. Johan Smit also designed and printed assemblies that are now being used in a few telescopes. The main successes were a secondary holder and an adjustable finder holder. Both these parts perform as well or better than what is commercially available.

Despite the lack of success in completing telescopes, the class is very active developing technologies and alternative methods to use in the building of telescopes. Making a telescope will be much easier in the future with the new available parts and techniques.

Now we just need to find a way to get people to do manual work again.

- **ASSA Instrumentation Director's Award**

The ASSA Instrumentation Director's Award for 2021 was conferred on Johan Smit and Percy Jacobs for their sterling and innovative work over many years in the telescope making class. This class has been going for many years and both Johan and Percy contributed to all of the telescopes that were made at the class. They have also been involved in designing and building many new award winning instruments designed to make the amateur telescope maker's work simpler and to contribute to citizen science in general. Congratulations to Johan and Percy.

Curator of instruments: Louis Kloke (& Johan Smit)

Some telescopes have been donated to the Centre and it has been decided that donated telescopes should be given away to members without telescopes if the telescopes are not being used. It is intended to make a list of telescopes that could be donated.

At present the telescopes to be disposed of are in the dome at CBC, but we do not have access to the premises due to Covid restrictions. The situation will be reviewed when we can regain access.

Centre representative : Bosman Olivier

- The ASSA AGM was held on **date**

Observations Co-ordinator**Publicity**

No report. It is not feasible to promote the Centre if we cannot meet.

Christian Brothers College

The Chairman submitted application forms for use of the School facilities for 2022, although it was noted that the dates would be provisional. No response was received.

The incoming Committee will discuss the resumption of meetings at CBC, and the resumption of observing evenings on the sports field.

2022 Sky Guide distribution

The Sky Guides were made available from various collection points as in previous years. Bosman Olivier, Michael Poll, Johan Smit and Danie Barnardo were the contact persons.

Committee

The committee comprised eight persons after the 2021 AGM – namely Bosman Olivier, Johan Smit, Michael Poll, Michelle Ferreira, Pierre Lourens, Danie Barnardo, Craig Kloke and Louis Kloke.

Craig and Louis Kloke have indicated that they are not available for re-election for 2022 -2023. Craig and Louis are thanked for their input and support of the committee.

The remaining members of the Committee have stated that they are willing to stand again for 2022 – 2023.

Bosman Olivier
Johan Smit
Michael Poll
Pierre Lourens
Danie Barnardo
Michelle Ferreira

In Memoriam

This year the Centre regrets to record the deaths of George Dehlen, Fred Oosthuizen and Jose da Silva.

Thanks

Thanks are due to all members who have supported and kept the Centre going over the lockdown period. Particular thanks are due to Johan Smit for organising the video links