

Winter is here – welcome to the 4th Edition of the ASSA Observing Section Quarterly

The 4th edition of the Southern Skies Quarterly was made possible with observations and images submitted during the last 3–4-month period. One of the highlights of this period was the total Lunar eclipse that took place on the morning of 16th May 2022. Whilst parts of the country were clouded out, some people had the opportunity to observe and capture the event photographically. In addition, the comet C/2017 K2 (PanSTARRS) made an appearance and will be visible for a few more months.

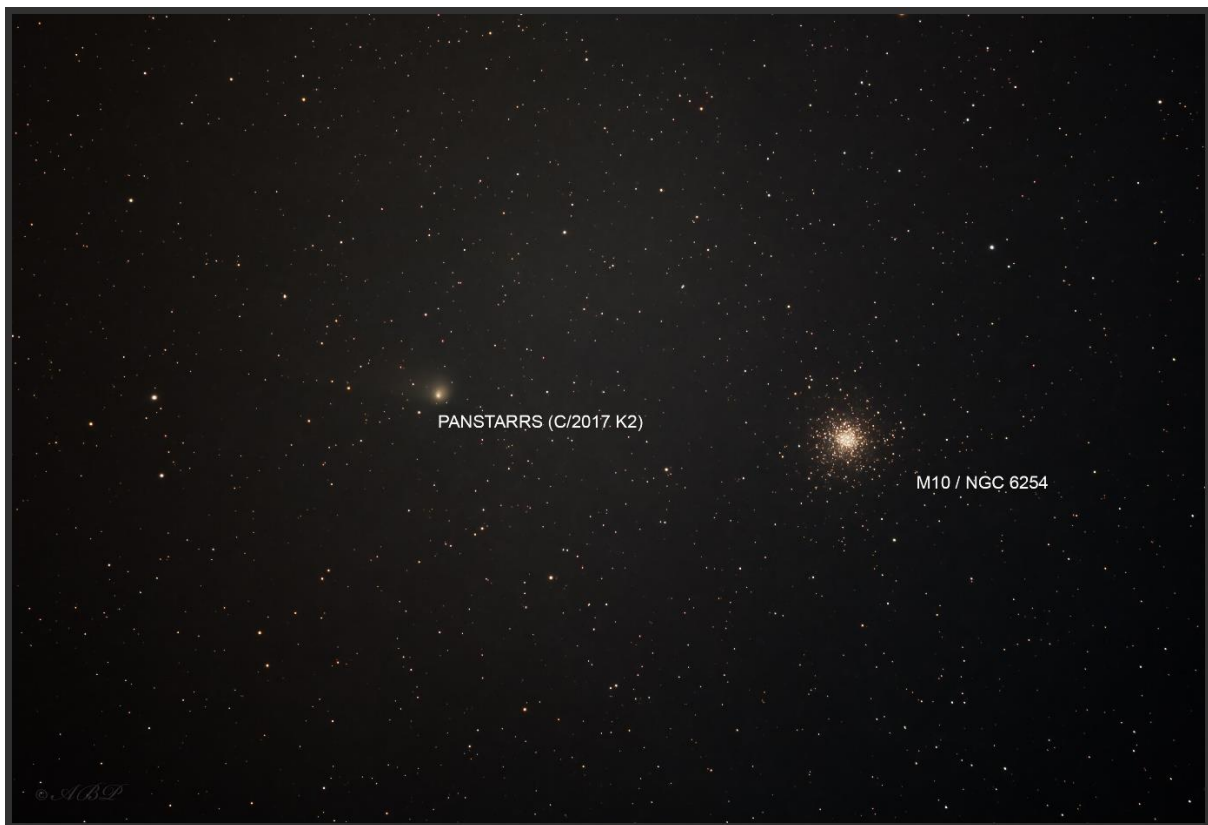


This beautiful scene was captured by Gary Deacon from the Western Cape. Besides the eclipsed moon, the constellation Scorpius is clearly visible above it. What a stunning sight!

A reminder on the approach and how to contribute

Every 3-4 months the Quarterly will be published on the ASSA website and shared on various social media platforms. Members of ASSA and the general public can submit written observations, images, stories and questions by sending them to: Observing@assa.saao.ac.za They may then appear in future editions of this publication. There will also be fun competitions from time to time, reviews on telescopes (and other astronomy gear) and public events.

Please visit the ASSA website <https://assa.saao.ac.za/> to learn more about the society. More specifically, pay a visit to the observing section <https://assa.saao.ac.za/how-to-observe/> to discover how to observe the various wonders in our skies.



Comet C/2017 K2 (PanSTARRS) imaged by Angus Burns on the 14th July 2022 as it made its closest approach to Earth with the nearby globular cluster M10 visible in the image. According to Tim Cooper (ASSA's Comet, Asteroid and Meteor (CAM) Section lead), the comet will reach perihelion on 19th December 2022. Please click on this link to learn more about the comet and also the upcoming late July / early August Meteor showers: [ASSA CAMnotes 2022 Number 2 \(saao.ac.za\)](#) and see below for further images of the comet from around South Africa.

Please note that Tim heads up the Comet, Asteroid and Meteor (CAM) Section for ASSA. You can visit the newly updated page and section notes at:

<https://assa.saao.ac.za/sections/comet-asteroid-meteor-section/>

<https://assa.saao.ac.za/about/publications/cam-notes/>

Please also click on the link to read MNASSA's latest peer-reviewed journals and more specifically the April 2022 edition which features a detailed section on "Observations and images of Comet C/2021 A1 (Leonard)": [MNASSA Download Page](#)



In this issue:

News Notes – Odd Radio Circles (ORCS)

Wake structures around stars

MeerKAT Megamaser

Comet C/2021 A1 (Leonard)

Webinars

Streicher Asterisms

MNASSA is a registered, peer-reviewed journal, with an ISSN number, and is referenced by and searchable in various academic databases. It is an excellent place for publishing ASSA's work, which can then be properly cited in subsequent publications.

The link on the ASSA website is <https://assa.saao.ac.za/about/publications/mnassa/> and provides more info about back copies and where to send contributions.

As usual, here is a roundup of various observations and imaging sessions from around South Africa over the last few months... Note: the submissions we receive are usually a hybrid of observations and imaging.

From KZN



A collage of images from the Autumn and Winter period imaged from Newcastle KZN by Angus Burns using a RASA 8. You can read the review of the RASA 8 at the end of this edition of Southern Skies Quarterly



Various images of the rising “frost moon” taken by Angus Burns from Newcastle KZN on the 16th May 2022



The rising “frost moon” observed and captured from Newcastle KZN on the 16th May 2022.



The Waning Gibbous moon from the 15 June 2022 captured through a Celestron 8SE with a Canon60Da from Newcastle KZN



Another view of comet C/2017 K2 (PanSTARRS) and the globular cluster M10 captured by Angus Burns from Newcastle KZN on the 17th July 2022 – captured with a RASA 8, ZWO294mc pro camera and Neodymium filter. Data was acquired before the moon rose and during load shedding which helped with revealing more details of the comets tail after processing.

Gerald De Beer sent us these amazing images from his imaging efforts over the past few months:



Gerald De Beer captured this breathtakingly beautiful image of the Prawn Nebula (IC 4628). He explained that “IC 4628 is an active star-forming region in the southern hemisphere that is not very often imaged. It is an emission nebula located in the Sagittarius Arm of the Milky Way, around 6,000 light-years from Earth in the constellation Scorpius. I have processed this in the SHO pallet but with RGB stars.” This was captured with a ZWO ASI2600MM through a AT127EDT Triplet @ -10Deg C on a Skywatcher EQ6-R Pro mount and over 6 hours of imaging.

According to NASA: The Prawn Nebula stretches 250 light-years and covers a space four times the size of the full moon, it emits light primarily in wavelengths the human eye cannot detect, making it extremely faint to earthbound viewers.

The Prawn Nebula, also known as IC 4628, is an emission nebula, which means its gas has been energized, or ionized, by the radiation of nearby stars. The radiation from these massive stars strips electrons from the nebula’s hydrogen atoms. As the energized electrons revert from their higher-energy state to a lower-energy state by recombining with hydrogen nuclei, they emit energy in the form of light, causing the nebula’s gas to glow. The colour red (in true colour images) indicates the presence of ionized iron (Fe II) emission.

Source: <https://www.nasa.gov/image-feature/goddard/2021/hubble-catches-celestial-prawn-drifting-through-the-cosmic-deep>



Gerald also imaged the Southern Pinwheel Galaxy (M83) and produced this detailed image from 30 x 180 second exposures through an AT127EDT Triplet and ZWO ASI294MM camera (unbinned at -10degC) This was captured over the 3rd to 5th May 2022 from his home in KZN.



Yet another stunning contribution from Gerald is this image of The Statue of Liberty Nebula (NGC 3576). Gerald had this to say about it: "The nebula is located around 9000 light years away. At the centre of the object we can see an interesting shape resembling the famous Statue of Liberty." He processed this image in the false colour SHO Hubble palette and captured the data for it with his ZWO ASI2600MM camera through a AT127EDT Triplet (25 x 240sec Ha, SII and OIII at gain 100 @ -10degC)



Gerald also captured this colourful image of comet C/2017 K2 (PanSTARRS) on 18th July 2022 with an RGB capture at 180 seconds each.

According to NASA: comet C/2017 K2 (PanSTARRS) is an Oort Cloud comet. What exactly is an Oort cloud?

The Oort Cloud is the most distant region of our solar system. Even the nearest objects in the Oort Cloud are thought to be many times farther from the Sun than the outer reaches of the [Kuiper Belt](#).

Unlike the orbits of the planets and the Kuiper Belt, which lie mostly in the same flat disk around the Sun, the Oort Cloud is believed to be a giant spherical shell surrounding the rest of the solar system. It is like a big, thick-walled bubble made of icy pieces of space debris the sizes of mountains and sometimes larger. The Oort Cloud might contain billions, or even trillions, of objects.

Because the orbits of long-period comets are so extremely long, scientists suspect that the Oort Cloud is the source of most of those comets. For example, comet C/2013 A1 Siding Spring, which made a very close pass by Mars in 2014, will not return to the inner solar system for about 740,000 years.

The distance from the Sun to the Oort Cloud is so enormous that it's useful to describe it not in the more common units of miles or kilometers, but astronomical units. One astronomical unit (or AU) is the distance between Earth and the Sun. Pluto's elliptical orbit carries it as close as 30 AU from the Sun, and as far as 50 AU. The inner edge of the Oort Cloud, however, is thought to be between 2,000 and 5,000 AU from the Sun. The outer edge might be 10,000 or even 100,000 AU from the Sun — that's one-quarter to halfway between the Sun and the nearest neighboring star.

Though [long-period comets](#) observed among the planets are thought to originate in the Oort Cloud, no object has been observed in the distant Oort Cloud itself, leaving it a theoretical concept for the time being. But it remains the most widely accepted explanation for the origin of long-period comets.

From Mpumalanga



Hendrik Le Roux sent us this image of the Southern Pinwheel Galaxy (M83) – he captured data for this image over the course of May and June 2022.



Hendrik also produced this image of the Eagle Nebula (M16) - This target was imaged over two weekends at the beginning of July 2022. This image processed using the famous Hubble Palette SHO. He used his trusty 8" Newtonian and ZWO1600MM Camera with just over 1.5 hours of Integration



He also Imaged the Trifid Nebula (M20) in SHO. Hendrik felt it would be interesting to see the Trifid Nebula in SHO because of the Interesting colour scheme and without the blue reflection nebula present. This was also Imaged with his 8" Newtonian and ZWO1600MM camera with just under 1.5 hours of integration

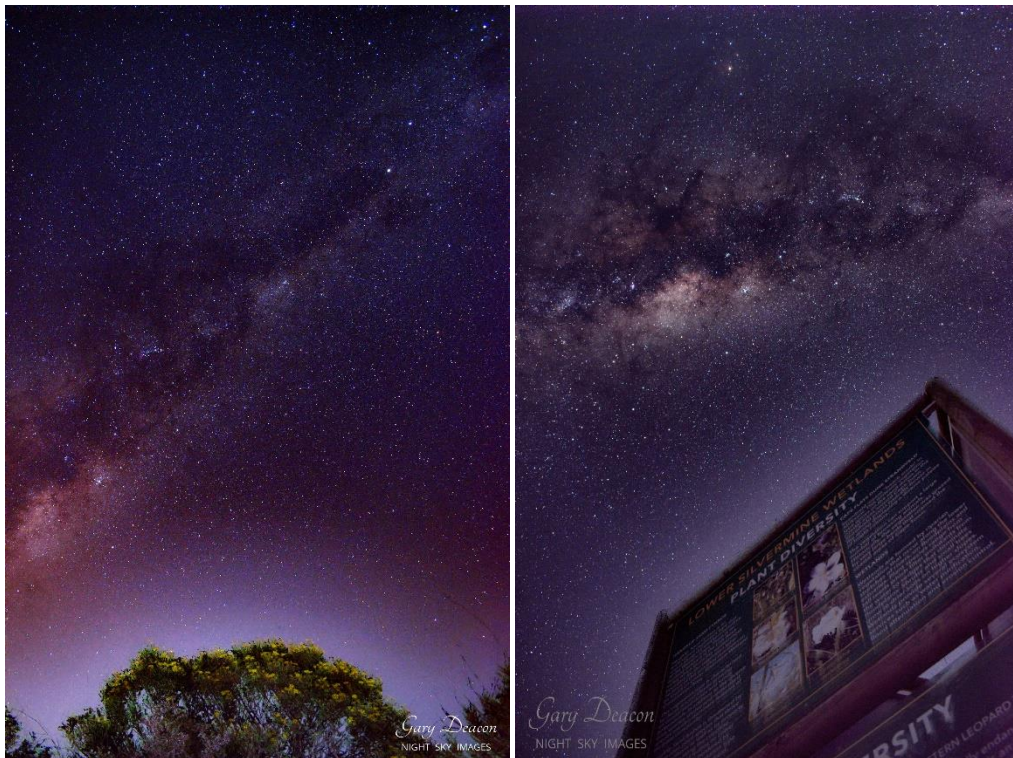


Finally, Hendrik also imaged the Omega Nebula M17 in SHO as well. This was a fun project for him to tackle as he did not Image this object last year and this was the first time he imaged it with his Mono Camera. He again used his 8" Newtonian Telescope with 1.5hours of Integration



Ben Coley sent us this striking image of the Eta Carinae Nebula captured and processed as an unguided 4 panel mosaic (15 x 90secs each) with the best 80% stacked in DSS. The editing was done in Photoshop with the help of the astronomy tools plug in and Starnet++.

From the Western Cape

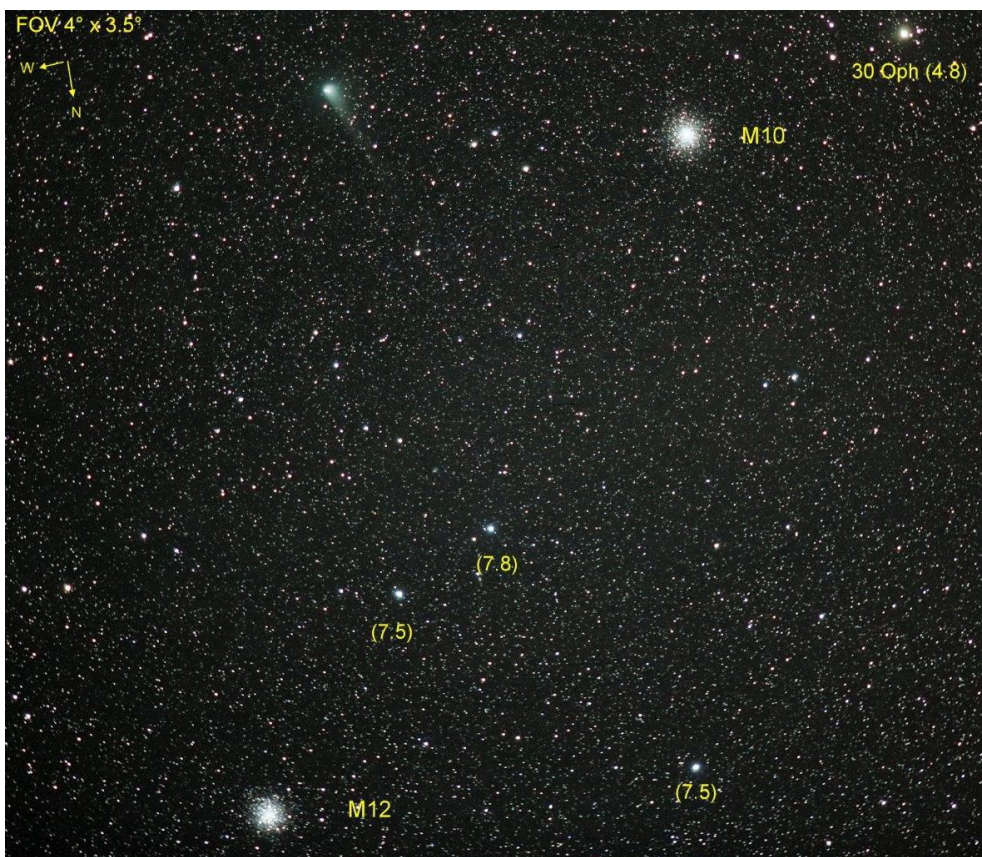


Two beautiful milky way images captures by Gary Deacon at Fish Hoek with his Nikon D5600 DSLR. Winter offers a prime time to photograph and observe the Milky Way.



Gary Deacon also captured a series of images from the recent Lunar Eclipse that took place on the 16th May 2022. It was wonderful to see the high levels of interest in the eclipse from the public and even nicer to have photographic records such as Garys to remember the event by.

Kos Coronaios shared the following two magnificent wide field images of comet C/2017 K2 (PanSTARRS) from Pearly Beach. Kos is an accomplished astronomer who regularly images comets and other deep sky objects.



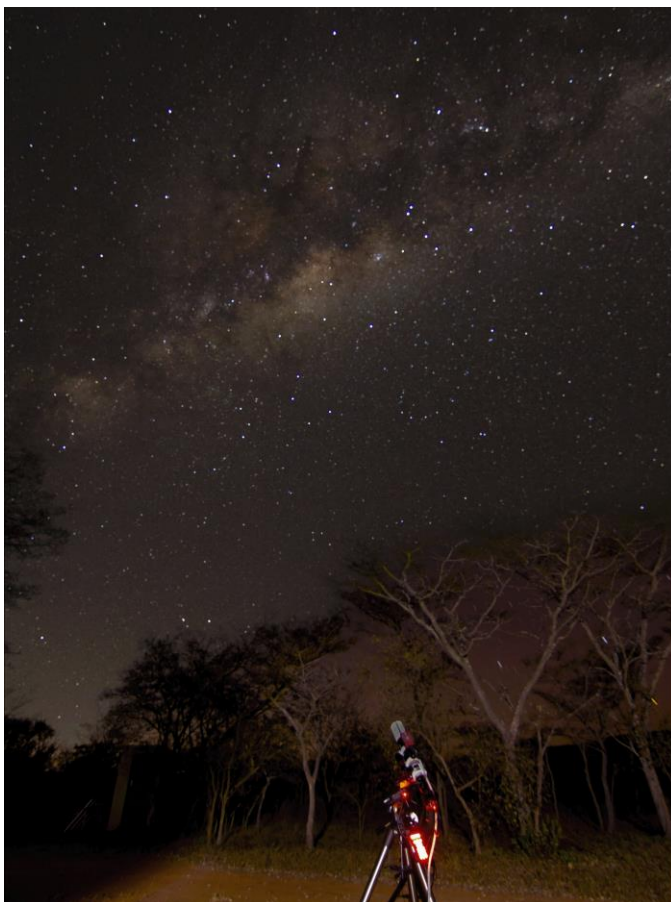
Captured by Kos Coronaios on the 17th July 2022 from Pearly Beach with two globular clusters visible



A second image from Kos with the focus on comet C/2017 K2 (PanSTARRS) and the nearby globular cluster M10.

From Limpopo

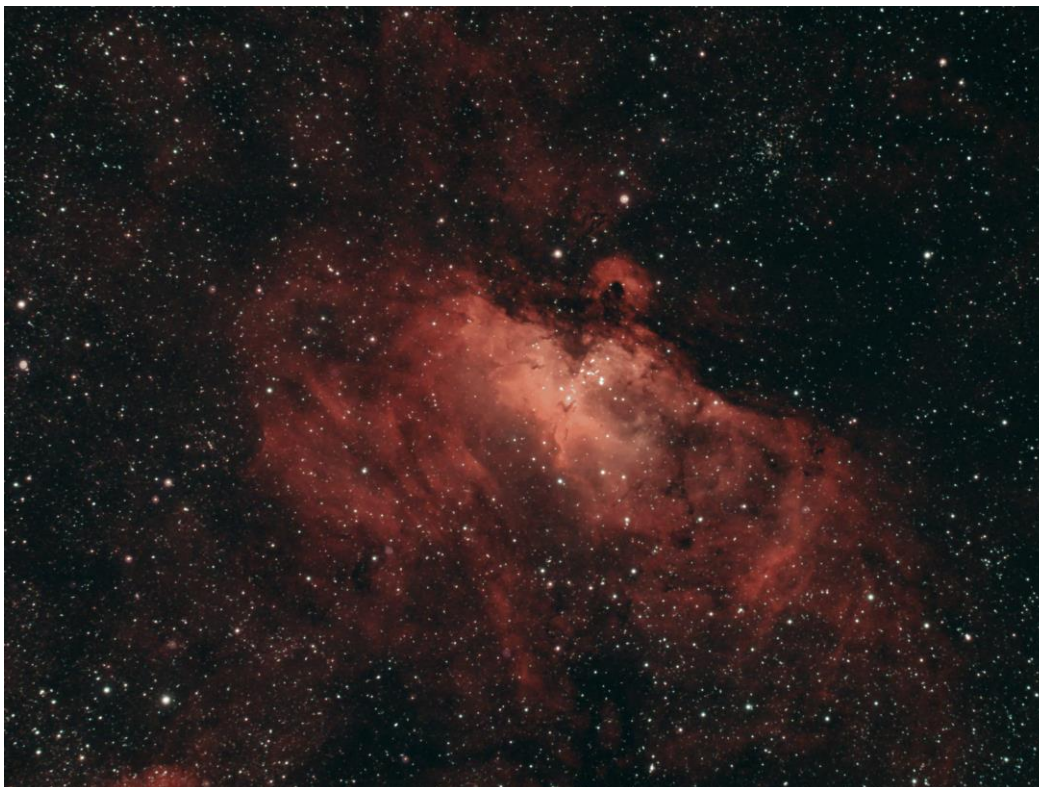
Frank Barbato sent us these fabulous set of images from his time at the farm Edi tala in the Waterberg District



This scenic Milky Way image was captured by Frank from the farm Edi tala on the 26th of June 2022 with a Canon EOS 550D and a Tokina 11-16 (note: the background was blended with the foreground)



Frank created this 2 pane mosaic of M20 & M8 (planned in Telescopium). He used a Skywatcher 72ED and Celestron Advanced VX with a ZWO ASI294MC PRO camera. He also used a ZWO ASI120 Mini Guide Camera through a ZWO Mini Guide scope which was all controlled via the ZWO ASIAIR



Frank captured this beautiful hydrogen rich image of M16 (the Eagle nebula) the farm Edi tala in the Waterberg District on the 24th and 25th of June 2022. He used a Skywatcher 72ED and Celestron Advanced VX

with a ZWO ASI294MC PRO camera. He also used a ZWO ASI120 Mini Guide Camera through a ZWO Mini Guide scope which was all controlled via the ZWO ASIAIR.

From the Free State

Lafras Smit has shared various beautiful images in previous editions of the Southern Skies quarterly. He provided the following two images of the comet C/2017 K2 (PanSTARRS).



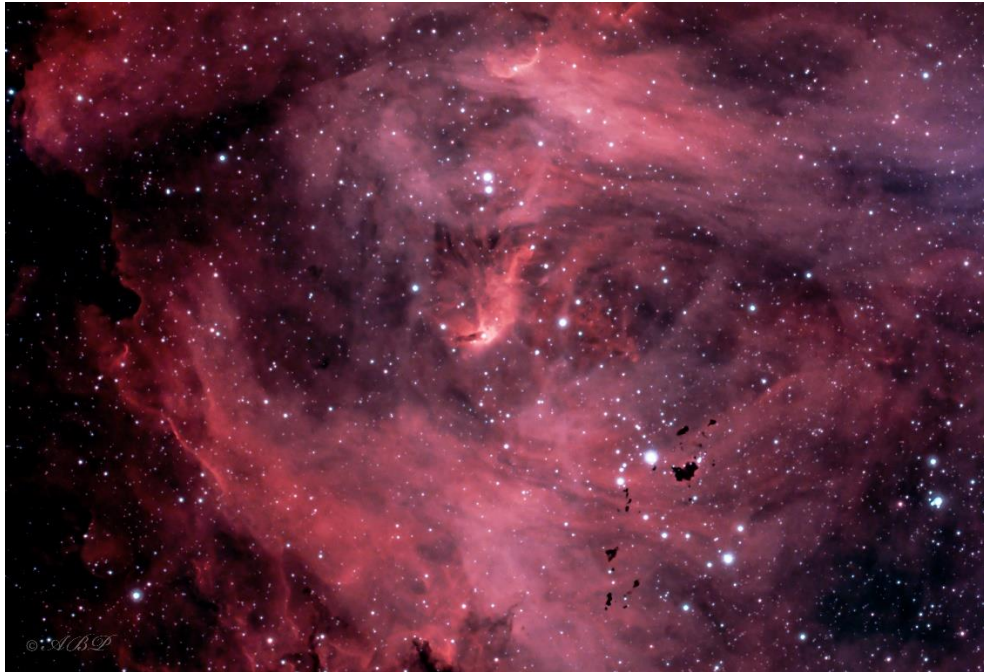
Lafras Smit captured this image of comet C/2017 K2 (PanSTARRS) from Helbron in the Freestate. He used his Celestron Edge HD 11" scope with a 0.7x focal reducer and a Canon 90D to capture the image.



Lafras also captured this wider field image of the Comet nearby the globular cluster M10 (also from Helbron and with a Canon 90D through a Sky-Watcher 10" scope).

You may have noticed that besides visual observations, many readers have made photographic or astrophotography submissions to the quarterly. If this interests you, please visit the astrophotography section of the ASSA website: <https://assa.saao.ac.za/sections/astrophotography/>

In addition, please visit <https://assa.saao.ac.za/sections/deep-sky/nightfall/> to read ASSAs Nightfall publications – this detailed and professional resource provides a wealth of information.



What's up for the next 3 months

A few observing highlights to look out for over the next 3 months include:

July 2022

- Southern delta-Aquariids meteor shower active from the 12 July until 23 August 2022 (peaking on the 30th July 2022)
- Piscis Austrinids meteor shower that peaks on the 28th July 2022
- Alpha-Capricornids meteor shower that reach their maximum on the 30th July 2022

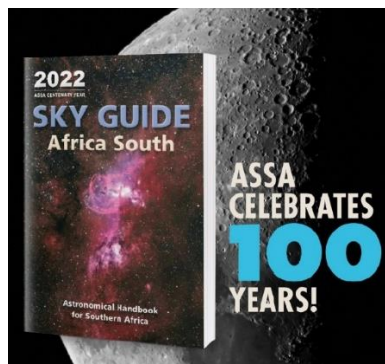
August 2022

- Full moon 12th August 2022 (at 03h35)
- Moon near Jupiter 15th August 2022

September 2022

- Full moon 10th September 2022 (at 11h58)
- Moon near Pleiades 16th September 2022

Now that we are into the Winter months, the constellation Scorpius is well positioned above the horizon after dark. In the early morning we will start to see the Pleiades making an appearance as we draw closer to Spring. For detailed information about the coming months, please consider purchasing a SKY GUIDE 2022 which is still available. The 2022 Sky Guide is an ASSA centenary edition and is packed with useful information for astronomers.



Visit <https://assa.sao.ac.za/about/publications/sky-guide/> to learn more about this indispensable publication.

Note: you can become a country member of ASSA at: <https://assa.sao.ac.za/about/membership/> and receive a free SKY GUIDE with your membership!

ASSA Symposium 2022: Celebrating a Centenary

Cape Town • 14 – 16 October 2022

[Find out more](#)

ASSA is celebrating its centenary as part of the 2022 ASSA symposium in Cape Town. You can read more about this amazing event here: <https://symposium2022.assa.sao.ac.za/> and if you are able to attend, please do support! If you would like to attend virtually, please email Secretary@assa.sao.ac.za to receive a virtual link. Also please note the exciting 30 under 30 initiative below (full details on the Symposium page).

30 Under 30

Further to this symposium's goal of bringing together both amateur and professional astronomers, ASSA will be launching a Special Project entitled 30 Under 30 to identify young astronomers in Southern Africa and support their research and careers.

ASSA will publish a list of 30 young astronomers from Southern Africa, with details of their accomplishments and specific research interests. These will include Master's and PhD students or young professional astronomers under the age of 30, who will receive support through:

- Publishing in the Monthly Notes of ASSA
- Inviting them to speak at the ASSA 100 Symposium
- Connecting them with employment and research opportunities in SA and globally

Both individuals and institutions are encouraged to nominate promising young individuals by completing the [nomination form](#). Self-nominations are welcome.

Review: Celestron StarSense DX 130mm Newtonian Telescope

By Angus and Alex Burns



Alex Burns standing next to the unboxed and assembled Celestron Starsense DX130mm Newtonian Telescope

The Starsense line of telescopes

According to Celestron, “Celestron has reinvented the manual telescope with StarSense Explorer—the first telescope that uses your smartphone to analyze the night sky and calculate its position in real time. StarSense Explorer is ideal for beginners thanks to the app’s user-friendly interface and detailed tutorials. It’s like having your own personal tour guide of the night sky.”

First Impressions:

- 1) Clever design and engineering (again!)
- 2) Excellent combination of a smartphone with astronomy (the app you have to download and use with the scope is superb and so easy to use)

3) Wide application for beginner astronomers - from snapping a few shots through it with your mobile phone, to exploring (and finding) various celestial objects, this scope sets a benchmark and is really well priced for what you get.

4) The optics look great

Note: I included my little son in the unboxing and assembly process so that he could learn from the experience but also because those clever engineers at Celestron made it so simple, a 5 year old could do it



Alex next to the unopened box – the packaging is exciting and eye capturing



Assembling the telescope was simple and user-friendly

Practical use of the telescope under night skies:

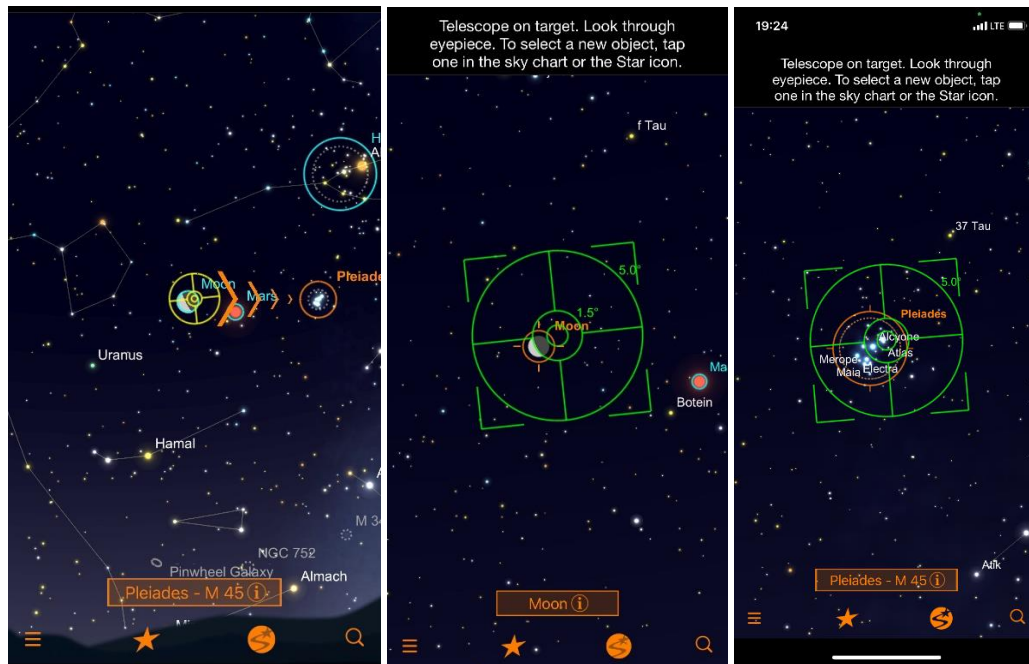
We did a test run of the Celestron Starsense DX 130mm Newtonian telescope under the night sky



Alex moving the telescope into position whilst using the smartphone app to guide him

Our experience of the telescope was as follows:

- 1) Alignment of the scope was very easy. We set it up outside in the late afternoon so as to ensure the process of aligning the finder scope with the main scope was easy
- 2) Accuracy of the app: very accurate - once it was dark, the smartphone app was able to determine its location and the telescopes position with ease. Within minutes we were moving the scope around to find the various objects that interested us. Provided you have a clear view of the sky, the app is accurate and packed with educational features including audio lectures about some of the objects you are observing + written text



The app makes finding celestial targets so easy

- 3) Optical quality: superb! For observational astronomy this little telescope is brilliant - the moon was bright and clear, individual stars were well resolved and bright.
- 4) Astrophotography: whilst not suitable for a DSLR, if you attach a Celestron NEXYZ smartphone adapter to the eyepiece, it's easy to take photos of bright celestial objects (like the moon) with a smartphone.



A couple of lunar images captured using a smartphone that was attached to the Starsense explorer telescope using a Celestron NeXYZ smartphone adapter (captured by my 4 year old son)

5) Extras: the telescope comes with a 2" eyepiece holder for wider field views + all required tools for assembly of the scope.

6) General impression of the quality and build of the scope: excellent! For a beginner wanting to explore the universe with ease, this scope is a wonderful entry level telescope and will be enjoyed for years. The combination of smartphone technology with a quality observational scope, innovative design and solid build makes this a great purchase for the family.

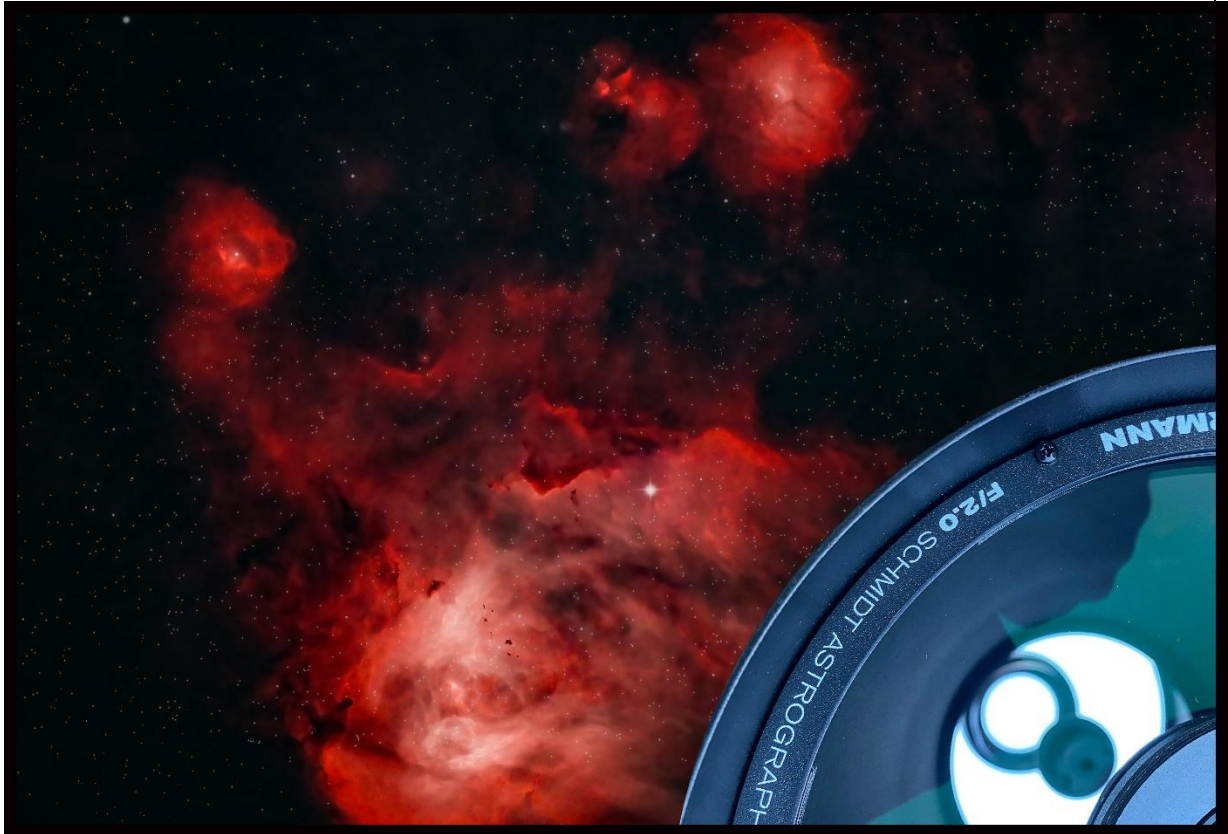
Conclusion

Well done Celestron for yet another brilliant astronomy product that opens the universe for those who want to explore. This is a well-constructed telescope with great quality optics and clever technological innovation. It is user friendly, easy to transport to different locations and ideal for a beginner wanting to invest in their astronomy interests.



An excellent telescope in so many ways and ideal for the beginner wanting to explore the night sky with ease

Celestron RASA 8 F/2 Review (By Angus Burns)



Celestron have created a range of Rowe-Ackerman Schmidt Astrographs – the 14", 11" and the 8" (the focus of this review). The RASA 8 is the most affordable in the range and arguably the most portable too. Unlike the RASA 14 and RASA 11, Celestron states that the RASA 8 is not designed for use with a DSLR but rather a dedicated astrophotography camera or suitably compact mirrorless camera. I don't own a mirrorless camera, so this review was limited to my experience with a dedicated astrophotography camera (in my case, a ZWO294mc Pro).

Note: The RASA 8 is not an instrument for observational astronomy – it was developed by Celestron as an astrograph that enables one to rapidly capture data using short exposure times. At F/2 this is a very fast scope, and it was my first time working with such an instrument.

I have wanted a RASA for many years and was ecstatic to be given the opportunity to review one. I have seen many amazing astro images produced from them and was excited to receive the RASA 8 from Celestron South Africa and unbox it for the first time.

Did the RASA 8 live up to my expectations? Is it worth acquiring one for astrophotography? In short, I found it easy to use, superbly designed and a joy for astrophotography purposes. Read more to find out why...



The Celestron RASA 8 is a fast F/2.0 system that is ideal for use with colour CMOS cameras, smaller CCD cameras and suitably compact mirrorless cameras. It weighs only 7.7 Kgs making it highly portable when you need to get to dark skies



RASA 8 Technical Specs

According to Celestrons website: “The 8” RASA is an imaging telescope that delivers a flat field without optical aberrations for razor sharp stars across a wide field of view. It can capture stunning deep-sky astronomical images without the challenges typically presented by longer focal length instruments at a fraction of the cost of those systems”

In summary here are some of the technical specs:

- **Scope Design:** Rowe-Ackerman Schmidt Astrograph
- **Aperture:** 8" (203mm)
- **Focal Length:** 400mm
- **F-Ratio:** F/2
- **Central Obstruction Diameter:** 93mm (46% of aperture diameter)
- **Image Circle:** 22mm
- **Useable Field:** 32mm
- **Focuser:** Ultra-Stable Focusing System
- **Optical Tube Weight:** 7.7kgs
- **Other Features:** Air cooling system, integrated filter mount
- **Dovetail:** CGE Dovetail
- **Included Accessories:** M42 Camera adapter / C-thread adapter / Fan battery pack

Unboxing

The unboxing process was straightforward with everything well-padded and packaged. This is the usual standard with Celestron – many years of experience with shipping scopes to customers across the globe has resulted in logically (and safely) packaged instruments that are easy to unpack and set up.

The box contains the following:

- Rowe-Ackerman Schmidt Astrograph (8") with CGE Dovetail attached
- M42 Camera adapter / C-thread adapter / Fan battery pack
- Plastic Dust Caps
- Relevant instruction manuals

Initial experience from set-up to first imaging session

I found the RASA 8 to be user friendly and well-engineered. It was a simple process to attach my ZWO294mc Pro camera to the front of the scope and although at first it seemed strange to do this, once in place, it was an easy task to achieve pinpoint focus. I used a Starizona RASA 8 filter holder so that I could change filters with ease in between imaging sessions. A bonus is that the filter holder is designed to provide the exact back focus needed for the imaging camera making the entire set up process that much easier.

Once the scope was balanced on my mount, I switched the internal cooling fan on to ensure the internal temperature of the scope matched the external temperature. I opted to use my Celestron Power Bank to run the fan as opposed to the supplied battery pack. Within 30 mins I was ready to begin imaging.

Something I noticed is that the built-in fan on my ZWO cooled camera seemed to act as a type of dew prevention mechanism – given the size of the 8" aperture on the RASA 8, I expected it to dew up quickly given that I was imaging outdoors in Winter with a lot of moisture in the air and cool temperatures (varying between 4 degrees and -1). I was pleasantly surprised to see that no fogging-up of the scope occurred throughout the imaging sessions. I can only attribute this to the fan in the camera repelling the air that would have possibly caused a problem on the 8" corrector plate. I would however still recommend a dew shield for colder contexts.

I positioned the cabling from my camera in a spiral from the centre of the RASA 8 to the edge of the aperture to try and reduce any diffraction spikes or flaring that they might cause with stars. I didn't notice much of an issue in my final images so I must have done the cable positioning correctly.

The field of view with my ZWO294mc Pro was wonderfully wide with well resolved stars to the edge of the field.

Achieving precise focus with the Ultra-Stable Focusing system was a breeze. I wish Celestron would fit all their higher end scopes with similar focusing systems because it is by far the best I have used yet (and I own many Celestron telescopes). Please note: you must ensure correct distancing of your astro camera to achieve correct back focus (in order for pinpoint stars) or you will find yourself struggling.

What is special about RASA optics?

Celestron state on their website that the RASA 8 provides a: "Flat field free of optical aberrations like field curvature, coma, astigmatism and chromatic aberration across an entire APS-C sensor"

They further state that the: "RASA's optical design is patented (US 2016/0299331 A1). The design consists of a Schmidt corrector, primary mirror, lens group, and optical window. The lens group

contains 4 elements and utilizes rare-earth elements. Unlike many telescopes that only perform well over the visible spectrum (400-700nm), the 8" RASA's optics are designed to perform over a wider spectral range, from 400nm – 800nm. This allows more of the light emitted from the astronomical object to be sharply focused in the image."

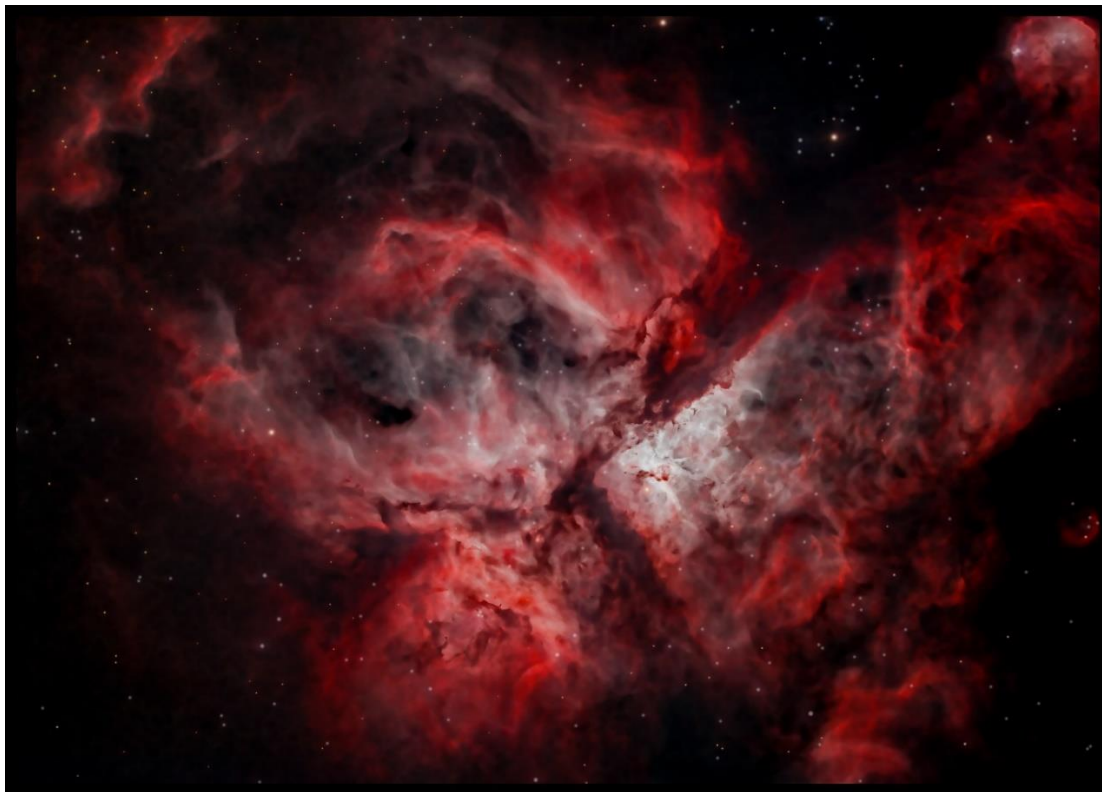
Celestron designed the RASA 8 as a super-fast imaging system that has: "a removeable optical window, so you can maintain peak optical performance if a filter is added or if a camera has its own optical window." In addition, the optical surfaces are coated with StarBright XLT coatings, and the primary mirror has enhanced aluminium coatings which when combined ensures maximized light transmission throughout the optical system.

How does the RASA 8 perform under night skies?

I purposefully limited my astro-imaging sessions to see what the RASA 8 could achieve in a shorter time period when compared to other telescopes. As a result, the shortest session was 25mins and the longest was 3 hours. I also limited the exposure time for each sub to 30 seconds. One can of course vary this depending on the object being imaged but I decided to stay with 30 second exposures throughout my review process.

I used two filters with my ZWO294mc Pro camera (depending on the context of the session and object I was imaging) - A Baader Neodymium Moon and Skyglow Filter and a Optolong L-Extreme Dual Narrowband Filter. As stated earlier, the Starizona RASA 8 Filter Holder made changing filters during imaging sessions very easy. There are similar filter holders available from other manufacturers so it's best to decide what your budget will allow.

I captured the following 10 images under varying atmospheric conditions and although I would have liked to image other objects, recent grassland fires around the town where I live (Newcastle South Africa) resulted in substantial haze at night that ultimately made me decide to end my review process after I had tested the RASA 8 on the objects featured here.



The Eta Carina nebula (NGC 3372) captured after 2 hours of imaging with the RASA 8 (240 x 30 second exposures) using a ZWO294mc pro and APT. Processed in APP / Starnet++/ LR and CC2019 (1 hour with a Baader Neodymium filter and one hour with a Optolong L-Extreme filter).



The Trifid and Lagoon Nebulae (M20/NGC 6514 & M8/NGC 6523) captured after 55 minutes of imaging with the RASA 8 (110 x 30 second exposures) using a ZWO294mc pro and APT. Processed in APP / Starnet++ / LR and CC2019 (with a Baader Neodymium filter).



The Fighting Dragons of Ara (NGC 6188) captured after 2 hours of imaging with the RASA 8 (240 x 30 second exposures) using a ZWO294mc pro and APT. Processed in APP / Starnet++ / LR and CC2019 (1 hour with a Baader Neodymium filter and one hour with a Optolong L-Extreme filter).



The Running Chicken Nebula (IC 2944) captured after 55 minutes of imaging with the RASA 8 (110 x 30 second exposures) using a ZWO294mc pro and APT. Processed in APP / Starnet++/ LR and CC2019 (1 hour with a Optolong L-Extreme filter).



Left to right: The Southern Pinwheel (NGC 5236) and Omega Centauri Globular Cluster (NGC 5139) captured after 1 hour and 40 minutes of imaging with the RASA 8 (200 x 30 second exposures) and 25 mins of imaging (50 x 30 second exposures) respectively using a ZWO294mc pro and APT. Processed in APP / Starnet++/ LR and CC2019 (both with a Baader Neodymium filter).



Left to right: Centaurus A (NGC 5128), Lobster Nebula (NGC 6357) and Cats Paw Nebula (NGC 6334) captured after 1 hour and 40 minutes of imaging with the RASA 8 (200 x 30 second exposures) and 1 hour of imaging (120 x 30 second exposures) respectively using a ZWO294mc pro and APT. Processed in APP / Starnet++/ LR and CC2019 (Centaurus A with a Baader Neodymium filter and the Lobster/Cats Paw with a Optolong L-Extreme filter).



Left to right: A small section of the Rho Ophiuchi cloud complex (IC 4604) with Antares and two globular cluster visible and then a cropped image of the Dark Wolf Nebula (SL-17) captured after 30 mins of imaging with the RASA 8 (60 x 30 second exposures) and 3 hours of imaging (360 x 30 second exposures) respectively using a ZWO294mc pro and APT. Processed in APP / Starnet++/ LR and CC2019 (Rho Ophiuchi with a Baader Neodymium filter and the Dark Wolf with a Optolong L-Extreme filter).

The Verdict for Astrophotography?

Being an astrograph designed purely for imaging, I found the RASA 8 to be a remarkable piece of technology developed for those who are serious about astrophotography. It is highly portable, easy to set up and produces amazing images in a short time.

As stated at the beginning of this review, I have always wanted to own a RASA and having been given the privilege of testing and reviewing one, I can say that it truly lived up to my expectations on every level. My experience with it was sublime. The RASA 8 astrograph enables incredible opportunities for imaging deep sky objects and produces wonderful results. Stars are well resolved, nebulae crisp and clear and details beautifully preserved because of superior optics and clever engineering.

Conclusion

In short I think I'm in love with the RASA 8! It's an astrograph you should consider acquiring if you are a serious astrophotographer - I have no doubt it will live up to your expectations. Although I limited my imaging sessions to a max of 3 hours, I can only imagine the possibilities if many more hours are dedicated to really faint objects over many nights. With the RASA 8 the possibilities truly are endless!

Thank you to Celestron SA for the opportunity to review this amazing astrograph.

Until the next edition....

We hope you enjoyed the 4th edition of the Southern Skies Quarterly. A massive thank you to everyone who contributed to this edition – without your support this publication would not be possible. We wish all readers a productive time observing over the Winter months and into Spring.

Angus Burns

Director observing section (Deep and Shallow Sky)



A composite colour image of the Moon captured from Newcastle KZN