NJSA Website - Night Sky in South Africa

Where in the Universe are We?

We live on the planet Earth. It is one of eight planets orbiting our sun. Our sun is one of about 200 billion suns in our galaxy, the Milky Way. Our galaxy is one of two trillion (2,000 billion) galaxies in the observable Universe. The Universe is all of space and time, all their contents, and all other forms of matter and energy.

Amateur astronomers who study the sky separate it into two types:

- Shallow sky
- Deep sky

The **shallow sky** is the Earth's atmosphere plus space within our Solar System. The **deep sky** is what can be seen with the naked eye or telescopes. What can be seen of the deep sky is different in the northern hemisphere than it is in the southern hemisphere.

You can learn more about what can be viewed from the Southern Hemisphere, how and when from these sources.

Books

"100 Things to See in the Southern Night Sky: From Planets and Satellites to Meteors and Constellations, Your Guide to Stargazing – A Field Guide to the Galaxy" by Dean Regas, Adams Media 2018, ISBN: 978-1-5072-0780-2.

"Guide to Night Skies of Southern Africa" by Peter Mack, 2012 ISBN 9781770078598

"Star Maps for Southern Africa – An Easy Guide to the Night Skies" by Albert Jansen, 96 star maps Divided into 12 sets, the maps for the eight views of the sky for each month of the year

"Searching African Skies: The Square Kilometre Array and South Africa's Quest to Hear the Songs of the Stars" by Sarah Wild, ISBN-13: 978-1431404728, ISBN-10: 1431404721

"Astronomy of Timbuktu" by Rodney Thebe Medupe, 2008 ISBN-10: 0521169763 ISBN-13: 978-0521169769

"First field guide to skywatching in Southern Africa" by Cliff Turk 2015

"Venus Rising: South African Astronomical Beliefs, Customs and Observations", PG Alcock, 2014 ISBN 978-1-919966-04-5. Also available as a free download on this page.

For these and other print books, ask your local library to order them. That way they can be available to more people.

NJSA Website – Night Sky in South Africa Online

The ASSA (The Astronomical Society of Southern Africa) website hosts brilliant resources to develop your understanding and skills.

Start with these resources for nature journaling the night sky.

<u>"Deep-Sky Observer's Companion: Observing Tutorial"</u> Version 13, November 2008 Compiled by Auke Slotegraaf. Distributed under an Attribution-Non-commercial 2.5 Creative Commons license.

This 47 page booklet includes guidance for the beginner on

- How to observe
- Looking and seeing
- What and how to record including
- How to make sketches of night sky observations (pages 15-17).

<u>Discover! Naked Eye Constellation Workbook</u> v.3.0. Discover! An observing project of the Deep-Sky Observing Section, Astronomical Society of Southern Africa http://assa.saao.ac.za/sections/deep-sky is a free downloadable document with:

- Sample deep-sky observation sheet
- Sample observation log
- Sample record sheet
- Plus 25 star charts

The ASSA website contains information and tools such as:

- An introduction to star-gazing and amateur astronomy <u>here</u>
- The Solar System (Shallow Sky) with information, updates, and towards the end
 of the page observation guides
- The Deep-Sky an introduction to observing the Deep-Sky
- Observing tutorial
- Observing checklist
- Observing star colours
- ConCards free star charts
- Southern Star Wheel planisphere

The ASSA website also has a page on African ethnoastronomy.

ASSA came up with a fun way to get started in astronomy - "The Big Five of the African Sky". Following the widely known "Big Five" of wildlife safaris, they chose the Big Five celestial objects of the Southern African sky:

- the Southern Pleaides an open star cluster
- Omega Centauri a globular cluster
- the eta Carinae Nebula a bright nebula
- the Coal Sack a dark nebula
- the Milky Way our galaxy

<u>Download the Big 5 Handbook | Laai die Groot Vyf Handleiding af Download the Big 5 Cheat Sheet | Laai die Groot Vyf Kulblad af </u>

For the Big Five and more check out this page and explore from the ASSA home page.

Also check out the podcast <u>The Cosmic Savannah</u> - about astronomy research and technology in Africa.

NJSA Website – Night Sky in South Africa See the Library for citizen science projects on astronomy.