



INTERNATIONAL YEAR OF ASTRONOMY (IYA 2009)

(Limpopo Astronomy Outreach & Soutpansberg Astronomy Club / October to December 2009)
final edition

INTRODUCTION

The Soutpansberg Astronomy Club (est. 2002) has been involved in astronomy in Limpopo Province, South Africa for a number of years. Based in the town of Louis Trichardt, 100 km south of the Zimbabwe / South African border in the northern Limpopo Province, the Club has enjoyed substantial growth since inception and has over 200 amateur and professional astronomers, interested persons and schools, who receive the Club's monthly newsletter and related astronomy information. Some are as far as Australia, Sweden and the USA. The newsletter is also available online www.foton.co.za/Soutpansberg_Astronomy_Club.htm. The web site is sponsored by Foton Optoelectronics, manufacturer of the Foton AstroCam, used during some of the outreach events during the year.

The Soutpansberg Astronomy Club has been prominent in organizing astronomy related projects in and around Louis Trichardt and with IYA 2009 it was only logical that we would continue to do so and include the whole Province. This was made possible by a grant from the South African Agency for Science and Technology Advancement (SAASTA) a business unit of the National Research Foundation (NRF), and The South African Astronomical Observatory (SAAO) who kindly donated brochures, posters and various other handout material during the course of the year.

A number of local businesses were also instrumental in assuring the success of this initiative with Office National Maranga Phanda, the main business sponsor, donating 300 MoonScopes, stationary and equipment to the Limpopo Astronomy Outreach Project. The Zoutpansberger and its sister newspaper, The Mirror, made Southern Star Wheels (*designed by Auke Slotegraaf*) available to thousands of its readers via inserts in their newspapers over a period of four weeks, while Leach Printers assisted with the printing and laminating of Edward Foster's display of "Fossils, Light and Time".

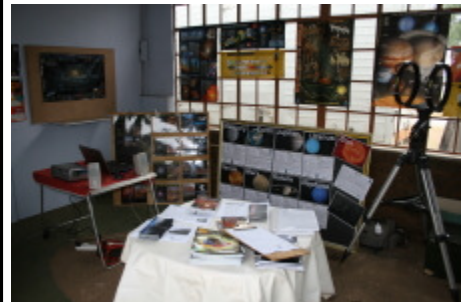
A full list of contributors can be found in the first edition.

Kos Coronaios
(Project Manager, Limpopo Astronomy Outreach)
(Chairman, Soutpansberg Astronomy Club)

Sometimes I think we're alone in the universe and sometimes I think we're not. In either case the idea is quite staggering. Arthur C Clarke.

OCTOBER

The Mvelelo Spring Show held in Louis Trichardt on the 29th and 30 of October lived up to its name with spring rains dominating two days out of the three day event. Due to factors beyond the control of the organisers the yearly show had to be postponed on a couple of occasions and was eventually held on the last weekend of October. Limpopo Astronomy Outreach visited over two days with the display having to move indoors due the non-stop rain on the second day.



Overall the response from the public was enthusiastic and the first day, which is traditionally the quietest being productive with over 100 people visiting the display, looking at sunspot # 1029 and collecting the various astronomy material that was available. During the early part of the first evening lovely views of the Moon were projected onto the screen. Unfortunately Jupiter was moving in and out of the clouds that were ominously bringing in the much needed rain to the region and we did not get the opportunity to view the planet.



A warm thank you to the organizing committee of the Mvelelo Spring Show.

[The Soutpansberg Astronomy Club's October newsletter](#) carried an article on the launch of South Africa's second micro-satellite.

[Donna Smith from Sidewalk Astronomers had this to say in their October issue:](#)

WOW! This is the first time we have had so many updates from around the world to put in our newsletter.

In the past, we have asked for short reports so that the newsletter isn't too long, but with this many we decided to only include the beginning of the articles and post a link to the website with the entire article. So go ahead and send us long ones!!! If you sent a report and it isn't included, please let us know and we'll be sure to get it in next month.

Just a reminder to get your Galilean Nights events registered at

www.galileannights.org. WE KNOW MORE OF YOU WILL DO EVENTS - PLEASE POST THEM.

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Some of the deepsky objects that were visible during the Club's astronomy evenings as IYA 2009 wound down. From left to right: Eta Carinae Nebula, Great Orion Nebula and the globular cluster Omega Centauri



Astronomy

Grab the kids and come look at the stars

One and all are invited to come and enjoy an evening of stargazing with the Southsberg Astronomy Club (SAC) on Saturday, November 14, from 19:00 onwards. During the evening, stargazers will be looking at the planets and deep-sky objects such as M77. This face-on spiral galaxy in the constellation Cetus, first identified by American astronomer Carl Seyfert in 1943. These galaxies have an active nucleus that is brighter than normal, with apparently weak spiral arms.

Designated M77 (NGC 1068) of the type Sb, it is vast, measuring 170 000 light years in diameter (our own galaxy Milky Way is 100 000 light years across), 50 million light years away. Light from this galaxy has travelled 300 000 000 000 miles through space before reaching us.

"One of my favourite deep-sky objects is also in Cetus, the NGC 246. The fairly large but faint disk contains three stars of equal brightness, of which one is the 'central' star. So grab the kids, bring a cooler and some snacks if you like and lets do some astronomy," invites SAC chairman Kos Corcoran. He can be phoned at 079 14 4934 for directions.

Stargazers can enjoy picnic under evening skies

The Southsberg Astronomy Club (SAC) will be holding a picnic and stargazing session on Saturday, November 14, from 19:00 onwards. The event will be held at the club's observatory in the suburbs of Johannesburg. The club will be looking at the planets and deep-sky objects such as M77. This face-on spiral galaxy in the constellation Cetus, first identified by American astronomer Carl Seyfert in 1943. These galaxies have an active nucleus that is brighter than normal, with apparently weak spiral arms.

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'Blue moon', lunar eclipse heralds 2010

LAUREN PETERSEN

As many gear up to ring in the New Year with a burst of light, a rare lunar phenomenon is only a few hours away.

The South African Astronomical Observatory (SAAO) has reported that not only will a so-called "blue moon" take place tonight, but a lunar eclipse will also coincide with the beginning of 2010 and is predicted to start at 20:00 and end at about 01:00.

The "blue moon" refers to the second instance of a full moon in a given calendar month, usually occurring about once every two and a half years.

The SAAO in Stellenbosch offers the public the unique opportunity to see the final sunset of 2009 from the biggest observatory on the African continent," said a spokesman for the SAAO.

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Visitors discover heaven's secrets

MAKHADO MUNICIPALITY

EXTERNAL ASSISTMENT

The Makhado Municipality is offering external assistance to various organizations and individuals in the area. The assistance is provided in the form of financial aid, technical support, and other resources. The municipality is committed to supporting the growth and development of the community.

Shoppers get a glimpse of solar system

Large crowds of shoppers gathered at the Makhado Municipality to see a display of solar system models. The display featured a variety of planets, moons, and other celestial bodies, providing an educational and entertaining experience for visitors of all ages.

TE HUUR
1 Slaapkamer Woonstel
Onderdakke Woonstel
012 535 2002 / 012 535 2000

Vakatures en Vakatures
Verkoopspersoon
HAPPY & BABY KING
(Munisa)
Maandag tot Saterdag
Verreëtes

Rondloperdiere hou steeds groot gevaar in vir motoriste

Val flou

Motorists are warned to drive slowly on the roads leading to the Makhado Municipality. The roads are in poor condition due to heavy rain, and there is a high risk of accidents. Drivers are advised to take extra precautions and to avoid driving on these roads if possible.

NOVEMBER

The club's observation evening was held on Saturday the 14th November after sunset.

The article below appeared in the local press and was also sent out electronically to Club members:

Catch the massive red star Antares in the constellation Scorpius as it disappears below the horizon in the west and on the opposite side of the sky, the equally big star Rigel in Orion as it appears above the horizon in the east. We will have to wait six months before we see Antares rising in the east in the evening sky.

Unfortunately the brightest part of the Milky Way is also in that region and it will be a few months yet before we can see the full splendor of the Milky Way. Our Galaxy, the Milky Way, is a spiral one and from our vantage point on Earth we see it edge on, as a dim band of hazy light stretching across the sky. It appears fainter where it passes through Orion and is at its brightest in Sagittarius. It is here on the border with Scorpius, that the central bulge can be seen in the winter sky.



Reports of an event that took place on the evening of the 22nd November received from all around the country.

That it was a meteor, there was never any doubt. That it was a meteorite (so-called after it reaches the Earth's surface) or a bolide (when it explodes) remains to be confirmed.

At around 23:00 (SAST) the sky (south of Johannesburg heading northwards into Zimbabwe as far as Gweru) was lit up by a meteor seen by hundreds of observers. The fireball's (a meteor brighter than mag. -3) trajectory, path, speed, composition, brightness, colour and where it eventually ended up can be calculated from information supplied by you. So thanks for your reports, telephone calls and emails.

At present reports are that the fireball ended up in Zimbabwe, but this still needs to be confirmed. The noise, explosion and after shock that observers heard could be the meteor disintegrating in Earth's atmosphere coupled with a sonic boom and pressure waves.

Below is a section of Magda Streicher's report of the event and she writes:

"At the farm site around 15km from the Zimbabwe border, 16km north of the little town Alldays at South 22o30 and East 20o07 a meteorite entry was seen on Saturday night at 22.04 SA Time and 20h04 UT Time.

The brightest light ever seen lit up the bushveldt as far as the eye could see, you were able to read a book! The next second an impact sound close to that of a bomb blast, followed by a sound like a definite ground impact, followed with an after sound that went over into a rumbling sound which lasted for around 3 seconds. My room windows rattled and suddenly it was dead silence."

DECEMBER



Limpopo Astronomy Outreach and Sandile Rikhotso from the University of Limpopo's Science Centre visited Savannah Mall in Polokwane on Saturday the 5th of December 2009. With Sarah and James to help set up the display and telescopes, Sandile and I were ready shortly after 09:00 to welcome the inquisitive public who were already stopping to enquire on proceedings.



The display consisted of astronomy related posters with two telescopes on view, a 10 inch Newtonian Reflector and solar filter and a 6 inch Dobsonian. Handout material consisted of information on the Sun, Moon, Solar System and "Sibo in Space" books. As usual the Edward Foster photographic display, showing an illustrated time-line of cosmic and fossil history going back 2.1 billion years, was a major talking point. With school holidays well under way, we were kept busy answering questions, showing everyone the solar disk and handing out IYA 2009 posters, courtesy of the South African Astronomical Observatory (SAAO). Interest in astronomy and the Soutpansberg Astronomy Club from the residents in Limpopo and Polokwane has grown considerably during IYA 2009 due to the IYA activities during the course of the year.

We concluded in the evening when an incoming thunderstorm prevented further night sky viewing. Both radio and printed media, and Savannah Mall's management, played a major role in advertising the day's activities. Sandile and I would like to thank the center's management, Savannah Spur and Ocean Basket, who surprised us with refreshments and food throughout the day, and Sarah, James and everyone else involved in this outreach initiative.

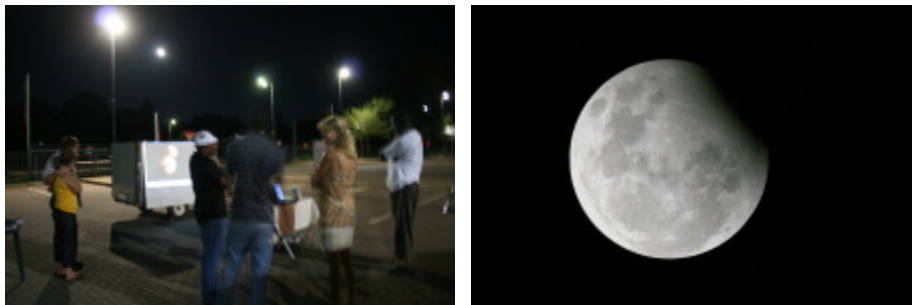


Last sunset and moonrise of 2009.



Beautiful clear skies, sunspots on the solar disk, followed by the last sunset of IYA 2009 and then glorious views of Jupiter and its moons. The cherry on top had to be the partial eclipse a little later of the "Blue Moon". All the while a steady stream of the public experiencing this. **What a fantastic end to 2009.**

Prior to the last sunset of 2009 the public had the opportunity to look at a few sunspots on the solar disk, followed by views of Jupiter and its four Galilean moons. The evening finished off with a partial lunar eclipse of the "Blue Moon". A Blue Moon has nothing to do with the colour of the Moon, but is so-called when two full Moons appear in one month.



Blue Moons are rare, occurring approximately once every 2.5 years. Blue Moons occurring on New Year's Eve are rarer still (once every ~19 years). How rare is a lunar eclipse of a Blue Moon on New Year's Eve? A search of NASA's Five Millennium Catalogue of Lunar Eclipses provides an approximate answer. In the next 1000 years, Blue Moons on New Year's Eve will be eclipsed only 11 times (once every ~91 years). So this is a rare event indeed.

To everyone who has been part of this IYA project, visited the astronomy display, looked through the telescope, all of you, young and old, parents and children, students and teachers, we sincerely hope that you have enjoyed yourselves and may your interest in science and astronomy grow and grow and grow.

[Kos, Cuan, Phatu, James & Sarah](#)



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