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# The Visitor Programme at SAAO, Cape Town

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#### SAAO – two locations

The SAAO has two main locations, namely its headquarters in the old Royal Observatory in the Cape Town suburb of Observatory and an observing station in the arid Karoo region near Sutherland, about 400 kms inland. While Cape Town has a Mediterranean climate with most clear nights in Summer, Sutherland has clear nights distributed around the year.

The Cape Town site dates from the 1820s but its sky is now too bright for most serious astronomical work.



Aerial view of the Royal Observatory site (Google).

## The SAAO Visitor programmes

There are visitor programmes in place in both Sutherland and Cape Town. Sutherland receives of order 9000 visitors per year and the Cape Town (Royal Observatory) site sees about half this number in most years. However, during IYA2009 the Cape figure was about 6000. These were about equally divided between the Saturday night general public and daytime school visits.

# Saturday nights

The Royal Observatory site is open to the public on the 2nd and 4th Saturdays of each month, at 8pm. The theme for each evening is announced well in advance on the Internet and is usually included a few days before in the 'what's on' columns of the local press. Science correspondents are encouraged to contact the individual lecturers. A fact sheet and map of the site is prepared for each of these evenings.

The visit usually starts with an introduction given in the Auditorium, which can seat about 100 people.



The entrance hall of the main building. The Royal Observatory contains the National Library for Astronomy.

A lecture is presented, usually by a professional astronomer. We normally emphasize that the Cape Town site is a historical one and that most observations are nowadays made in Sutherland using the Southern African Large Telescope and a range of other instruments.

After the conclusion of the presentation the visitors have several choices. Some may like to view the old Main Building and library. If conditions are favourable, others can view the skies through small modern telescopes on the lawn or experience the Victorian-era McClean 18-inch refractor. The latter features a rising floor, something that never fails to interest and amuse and is often the one thing that adults remember from a childhood visit!



The McClean telescope, with its rising floor, is one of the highlights of a visit to the Royal Observatory.

This telescope was once the largest refractor (lens telescope) in the Southern hemisphere.

It was used for taking the spectra of stars.

A group of learners looking through the McClean telescope.

Actually, three telescopes are mounted together. One is purely for photography.



The rising floor can only take 12 people at a time. Those waiting their turn usually take the opportunity to view the Astronomical Museum, also situated in the McClean Building.



The Astronomical Museum of the SAAO. This is a purely historical, rather than a teaching. museum. It contains some of the instruments used by astronomers over almost two centuries.

#### Staffing for open nights

No pre-booking or entrance fees are required to attend an open night. However, access to the site is controlled by the regular security guards at the gate of the Observatory and those who will be assisting later also help with directing visitors to parking places.

The staff for an evening usually consists of at least 8 volunteers, including the lecturer (who may be from outside the Observatory), a technician to take care of the data projector in the auditorium, astronomers (amateur and professional) to demonstrate the telescopes, and people to operate the souvenir shop.

Members of the Cape Town Centre of the Astronomical Society of Southern Africa play an important role during these events.

Following IYA2009, the 4th Saturday visits are being conducted by a new organisation, the 'Friends of the Cape Town Observatory'.

#### **Schools Programme**

Most school visits take place during the daytime.

The precise format varies, depending on the level of the learners involved. The visit usually starts with a talk, sometimes given by one of the astronomers, but often by a member of the outreach staff.

If the weather is suitable, it is possible to look at an image of the Sun projected onto a ground-glass screen by the solar telescope, and sunspots can be demonstrated – if they are present!

There is a sundial on the front lawn and this is used to explain how the sun can be used to tell the time. The standard weather station may also be visited.

The McClean telescope and its rising floor, as well as the Museum, are on the itinerary.



A daytime group receiving instruction on the use of the sundial. With care, the time can be read to within 1 minute.

Visiting the Stevenson Screen weather station at SAAO. SAAO has the earliest continuous set of weather records in South Africa.



Hands-on workshops such as making cardboard Galilean telescopes or spectroscopes are sometimes also held. Special kits have been developed for these 'instruments'.

Besides visits of learners to the Observatory, there is also a programme in which members of the SAAO Outreach staff, sometimes accompanied by astronomers and/or graduate students, go out to visit schools directly.



Making cardboard spectrometers from SAAO kits

### The SAAO Shop

A small shop is available on open nights to sell posters, books by South African astronomers, postcards, golf shirts, T-shirts, scarves, warm hats and other souvenirs.

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