

Director's Report

Taking the helm at SAAO (in October 2004) was an honour and a privilege for me to be associated with the organisation at such an exciting time in its history. With SALT literally looming larger as the year progressed (with more than 3/4 of its mirror segments installed), the anticipation, both within SAAO and the wider astronomical community, was becoming palpable. SAAO was entering a phase in which it would undergo the most major transition in its 30-year history as it prepared to operate the largest telescope in the southern hemisphere! This would mean focussing its resources on an operation and exploitation that was not just on behalf of South Africa, but for a global community of SALT partners.



Figure 1. The Southern African Large Telescope approaches completion.

As a long-standing regular observer at SAAO, I had always been impressed by the efficiency and effectiveness of the remote Sutherland operation. This was splendidly recognised within just a month of my taking office, when the 5-yearly NRF review of its facilities was undertaken. This internationally-constituted panel reviewed our existing facilities together with our plans for the operation of SALT, leading to a report that SAAO can be proud of. I cannot resist extracting one or two quotes from this report: "SAAO has performed extraordinarily well in all respects in commissioning SALT and in planning for the transition to the SALT era. Technologically South Africa has benefitted much from SALT and should continue to do so in the future. All

those involved in the SALT endeavour deserve the highest praise." These comments are a tribute to the contributions of my predecessors in charge at SAAO, Peter Martinez, Patricia Whitelock, and of course the original guidance provided by Bob Stobie, as well as the efforts of the entire staff.

The report also very valuably recommended enhancements to our SALT operational plans and the facilities at Sutherland. Many of these have already been or will soon be implemented.

MANAGEMENT CHANGES

I have felt fortunate to have taken over as Director from Peter Martinez who was acting in this post until 30 Sep 2004, and I wish to note here his tireless efforts in this regard which have benefitted SAAO so much through what has been a difficult time. Completing the major changes at SAAO this year has been the appointment of Faranah Osman (from

within SAAO's own ranks) as the new Business Manager. As part of the SAAO's necessary transition to be able to handle the volumes of SALT data we expect to flow, the opportunity was taken to appoint Roy Emmerich as Head of IT, and thereby allow Luis Balona to concentrate fully on SALT instrumentation software and data processing. A further, well-deserved promotion occurred from early 2005 with the appointment of Chris Koen as Professor of Statistics at the University of the Western Cape, after 15 very productive years at SAAO.

SALT APPROACHES COMPLETION

Inevitably, and fully justifiably, SALT is now dominating the day-to-day activities of SAAO, and substantial progress has been made on a variety of fronts. Not only does it have a primary mirror already equivalent to an 8m telescope, but the very first imaging results (using roughly half of the mirror) already demonstrate the capability and potential of SALT (see p15-16). The corrections, improvements and enhancements applied to the original HET design have produced initial images that are already within specification. And that is without any of the other features that SALT is being equipped with!

Construction was initially planned to be complete by end 2004, a truly punishing schedule that has not (quite) been achieved. Nevertheless, most of the major hardware has been completed by March 2005, although many of the Project Team have been retained to at least the end of 2005 in order to complete the commissioning schedule and prepare for a successful handover to the Operations Team.

The first SALT Astronomers were appointed this year, namely Encarni Romero Colmenero and Petri Vaisanen. Both have extensive observing and astronomical data experience (from optical to X-ray wavelengths), and their efforts are being augmented by further appointees due to arrive in the next reporting year.

SCIENTIFIC PRODUCTIVITY

In spite of the huge efforts of staff in support of SALT, it is a pleasure to record the impressive scientific output of the SAAO staff. During the current year, 117 papers were published by SAAO, South African and international visiting scientists exploiting the current suite of research facilities at Sutherland (for details see the following pages). In the prevailing circumstances at SAAO this is a highly commendable achievement.

I fully expect this to grow substantially in the coming years given the interest in SALT demonstrated by those attending the first SALT community workshop held at SAAO in late March. It is intended that this evolve into a regular series of SALT Users' Meetings as we approach "real" SALT operations.

LOOKING AHEAD

It is inconceivable that SALT will not dominate our landscape even more than it has this year! While we are obviously focussing on the scientific questions that SALT will address, and completing the installation and testing of its instrumental payload, there is a "major" hurdle to cross at the end of 2005 with the SALT Inauguration. This is likely to be the "biggest" scientific event in the entire history of the country! (OK, so I'm biased!). A parallel, but essential, development to prepare for the greatly increased public interest in SALT, and the needs to reach much larger numbers of schoolteachers and young people, has been the plan for a new Auditorium on the Cape Town site, and a greatly enlarged Visitor Centre on the Sutherland site (redeveloping the old Technical Building there). 2005-06 will be an exciting year for us all!



Phil Charles
Director

