



SAAO Sutherland plateau: An Intelligent Transient Observatory

Future aspirations at SAAO: make the whole Sutherland site an integrated intelligent machine for transient followup

This work is beginning now with several recent initiatives:

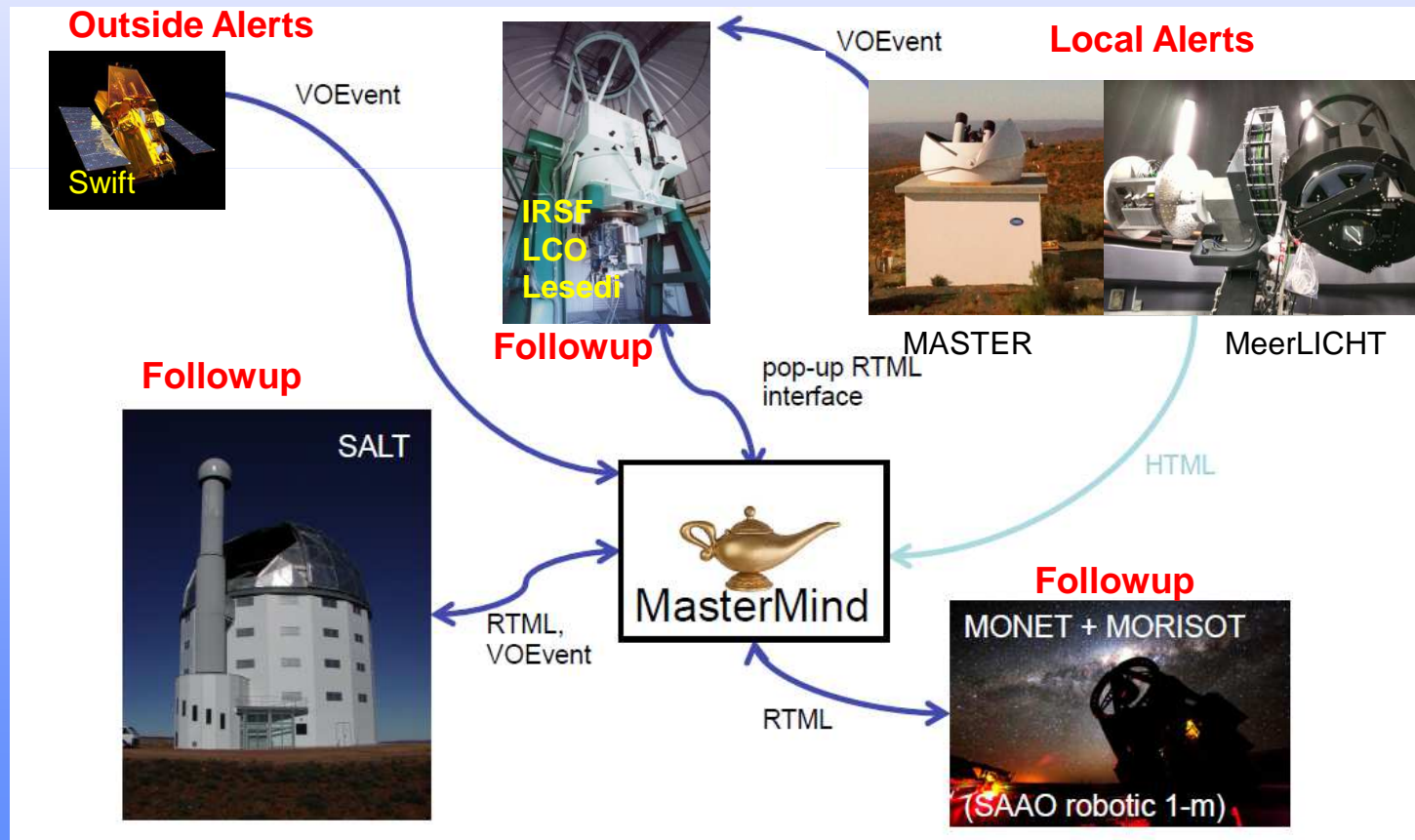
- funding for a new highly efficient spectrograph for SALT (point & shoot)
- resources being provided to allow development of SW scheduling tools in collaboration with other groups (e.g. LCO)
- South African participation in LSST





Automated Transient Followup Project

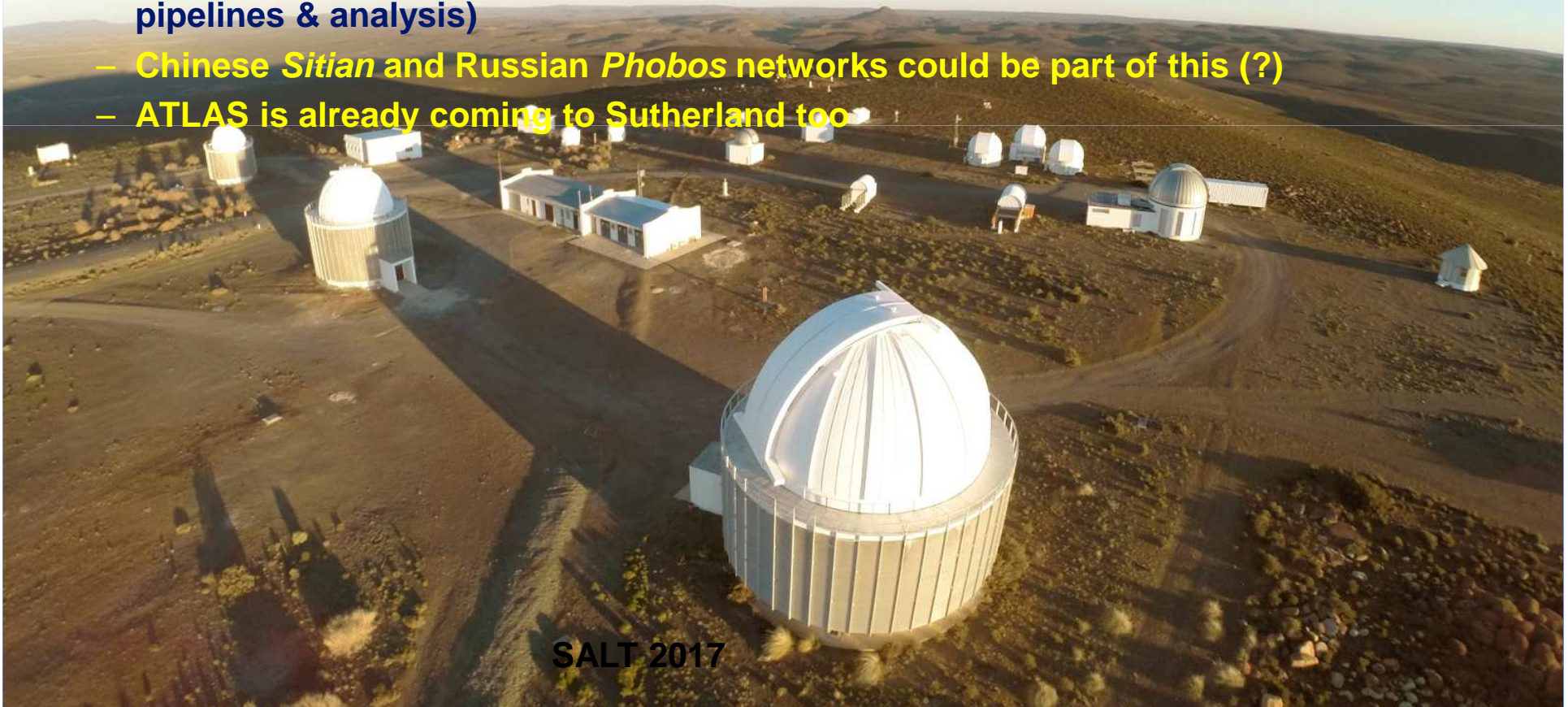
- Trigger automated requests for followup observations from alert triggers
- Will allow for the automated selection of telescopes, instruments & modes and appropriate observation setup and scheduling
- GCN socket, VOEvents, APIs for robotic & queue-scheduled telescopes
- Efforts are underway in developing toolkits for automated scheduling, e.g. Target & Observation Manager (TOM) and Astronomical Event Observatory Network (AEON), used to coordinate observing requests across multiple participating facilities (LCO initiatives)





A BRICS Transient Followup Programme

- Flagship proposal for a BRICS key astronomy programme on transients
- A global multi-site, multi-wavelength approach
- Programme could involve:
 - Automating networks of telescopes within BRICS countries
 - Developing new dedicated telescopes, instruments, software (scheduling, data pipelines & analysis)
 - Chinese *Sitian* and Russian *Phobos* networks could be part of this (?)
 - **ATLAS is already coming to Sutherland too**



SALT 2017