very conservative regarding the obtainment of calibration frames. We are aiming at reducing the number of daytime calibration frames produced, e.g., the number of dark frames, usually not of very much use for data reduction, still interesting to monitor instrument performance like readout noise.

• LW operations resumed in June 2000 with a new detector. We are still in a learning curve for optimising the operation and assessing the performance and the calibration needs of this mode, in imaging and spectroscopy. The difficulty is here to carry out this exercise while keeping the instrument fully operational.

5. Main Achievements

After almost 18 months of operations, we believe that our main achievements regarding ISAAC operations are:

• Template operations. All templates seem to cover the main requirements from the users. Only in exceptional cases did we have to develop specific templates. The control system is powerful and flexible enough that exceptional requests (e.g. occultation) can usually be accommodated, provided that this is anticipated long enough in advance and iterated upon with Paranal staff. The philosophy adopted for these templates was to hard wire as many parameters as possible (e.g. detector readout mode), so as to limit the number of parameters to be defined by the users, and to simplify the calibrations.

• Calibration Plan. The calibration plan fulfils the needs for the calibration of the instrument and of the science data.

• Automatic generation of daytime calibrations. Sequences of daytime calibrations are automatically generated at the end of the night, based on the FITS header information of the images taken during the night.

• Miscellaneous material provided to the users. Beyond the User Manual, we provide lists of standard stars, atlas of OH and arc lines (to be complemented soon by an atlas of atmospheric absorption lines), library of available IR spectra, etc.

• ETC. The ETC has proved to be reasonably reliable in estimating the performance of the instrument, and all major modes are now supported.

• Pipeline and Data Reduction Tools. Most of the ISAAC modes and/or templates are supported by data reduction tools, running in pipeline, fully automatic mode on Paranal, and available off-line for data reduction. The usefulness of these tools cannot be overstated, both from the user point of view and from the Paranal Operations view. Reduced frames in imaging or spectroscopy allow to assess in real time the quality of the data and determine whether the science goals of the observations are reached.

With the forthcoming addition of some more material for the LW channel in the next months, we believe that we are providing the user community with a self-consistent set of tools and documentation allowing them to use ISAAC in the best of its capabilities for any particular scientific observation.

6. Conclusion

After its first year and a half of successful operation at the VLT, ISAAC has already provided a vast amount of first-class scientific results. See Cuby, 2000, for a presentation of some scientific results obtained in the past year. Figure 4 shows a partial image from a deep, wide-field public imaging programme carried out in service mode with image quality below 0.5 arcsec on the HDFS field, which is described in Franx et al., 2000. Figure 5 shows a Medium Resolution spectrum of a galaxy at redshift 3, illustrating the line detection capabilities between the OH lines.

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MESSAGE TO THE ESO COMMUNITY:

Opening of the VLT Visitor Focus

ESO plans to open on 1 April 2002 a Visitor focus located at a Nasmyth Focus of UT3 (Melipal).

The Visitor Focus has been reserved to permit innovative observations by teams stand-alone instruments, free from a substantial fraction of the requirements for fully automated VLT general-use instruments.

The instruments will be provided by institutes or consortia, and they can be temporarily mounted at the Visitor focus. In addition, this could provide a powerful scientific/technical test bench for new instrumental concepts, eventually incorporated later in standard VLT instruments. The set of guidelines on how to propose and carry out this type of observations can be found at: http://www.eso.org/instruments/visitor_focus/

Note that the side port of NAOS could also hold a small visitor instrument.

Interested parties should contact the VLT Programme Scientist (arenzini@eso.org), Instrumentation (gmonnet@eso.org) and Paranal (rgilmozz@eso.org).