

SUBJECT:

## **VISTA Science Verification and Early Science Observations**

Dear VISTA Public Survey PI,

We would like to update you on the current state of the ESO VISTA project, including the schedule of the Science Verification (SV) observations. At the same time we would like to inform you about the upcoming opportunity of VISTA dry runs, and to provide support in the preparation of your survey observations, to be scheduled during dry runs, after the science verification period.

VISTA has undergone a long and intensive test period, and there were some unforeseen delays of the schedule. ESO, together with the VISTA Project Office has now scheduled the last commissioning run for the period between September 26, 2009 and October 15, 2009.

After this run, the telescope and camera will be delivered to ESO and the following two weeks are reserved for the science verification observations.

As announced during the Phase 2 workshop in September 2008, we are planning to execute two mini surveys during 10 nights allocated for VISTA SV run. These observations are part of a very important check of the entire operational procedures and a verification of the scientific status of the telescope and camera. Furthermore, these observations will provide the first comprehensive self-contained scientific data-sets from VISTA and these data will be immediately made public world-wide. This will allow the entire astronomical community to exploit the data scientifically, as well as a basis for planning future observations with VISTA.

The reduction and analysis of the SV data is expected to provide feedback for the science operations within a time scale of three months. This period will be used for technical activities to integrate VISTA into the Paranal Observatory operations (the so-called "Paranalization" phase) at highest priority, and also for VISTA public survey dry runs as a second priority.

You have been contacted as PI of one of the six VISTA PS teams whose survey has target fields observable during the period after the Science Verification and before the official start of the survey operations. Hereby, we invite you to submit observations for 100 hours of execution time, to allow an early start of your survey during the dry runs period.

At this stage we expect that a significant amount of good data can be taken, that are scientifically compliant with your survey requirements. A fact sheet which summarizes the performance as achieved by the VISTA project team is attached to this letter.

However - we do not expect that the submitted observations will be completed within a strict time-line, but rather we offer you the opportunity to take advantage of the VISTA schedule for an early science with VISTA public surveys. At the end of this period the OBs which were not yet executed will be canceled, and only the OBs submitted through the regular Phase 2 call will be executed after the official start of operations.

The time corresponding to the execution of successfully completed OBs during the dry runs will be counted as part of the ESO public survey time allocation. The corresponding data products must then be delivered to the ESO archive, e.g. six months after the delivery of the individual complete tile data (night calibrated data) and eighteen months for the first major survey data release (with uniform photometric and astrometric calibrations). The eighteen month period starts at the beginning of the normal science operations, expected for February 2010.

We expect to issue the call for the delivery of the early science OBs on October 1, 2009 for the period from October 30, 2009 to February 16, 2010. We kindly ask you to identify those team member(s) who will be responsible and fully in charge of the preparation of these OBs and will serve as the contact point during the verification carried out by the ESO USD. Please submit the OBs for dry runs before October 20, so that they can be checked by USD before start of observations on October 30, 2009. Late submission of OBs will result in a later start of the dry runs.

The detailed information about the SV observations will be available from October 6, 2009. As already announced during the September 2008 ESO PS

meeting, we welcome your input for a limited amount of additional observations if the SV OBs are not sufficient to provide all information for the Phase 2 preparation of your survey. Please send us a brief justification if you require such observations as soon as possible. It will be the responsibility of the PIs to prepare the observations and submit the SV OBs before October 15, 2009 at the latest, as well as to reduce and analyze these additional data-sets in time for the preparation of their Phase 2 OBs.

For any queries about the preparation of the VISTA SV OBs, the dry runs OBs, and Phase 2 please contact [usd-help@eso.org](mailto:usd-help@eso.org),

Please do not hesitate to contact us should you have any further questions.

Best Regards,

Marina Rejkuba, VISTA User Support Astronomer  
Magda Arnaboldi, EST Chair & SV PI  
Thomas Szeifert, VISTA Telescope Scientist