

Table 3: Anticipated performance with IR camera.

IR camera Band	Y	J	H	Ks
Assumed Sky Brightness mag /arcsec	17.2	16.0	14.1	13.0
Assumed Extinction coefficient mag /airmass	0.05	0.1	0.08	0.08
Sensitivity 5 σ 15 min limiting (Vega=0) mag	22.5	22.2	21.0	20.0

secondary by sending signals to a hexapod secondary mirror support system provided by NTE SA of Barcelona.

SITE & ENCLOSURE

As there was not enough space to fit VISTA on the Cerro Paranal summit as originally envisaged, the “NTT peak”, which is ~1,500m north-east of the VLT, was assigned to VISTA. By February 2003 the summit was lowered by 5-m to a height of 2518m to produce a ~4,000m² platform on which to construct VISTA, and by June an asphalted road was constructed to the summit. This was accompanied by conduits to hold the necessary electrical, communications and other services needed at the summit. In July 2004 the foundations for all the buildings were in place and the circular base on which the enclosure will sit was completed (see Fig. 9).

The design of the enclosure is along similar principles to those of the VST to minimise seeing effects due to the enclosure. An auxiliary building will sit next to the enclosure to contain all the necessary equipment and materials for maintenance. There is space to store a second camera (if the visible camera is eventually funded) and some office space. The auxiliary building will also contain mirror washing and stripping facilities, and a coating plant. This has been contracted to Stainless Metalcraft, and will be capable of coating with protected silver because of its lower IR emissivity than traditional aluminium. Both the enclosure and auxiliary buildings are contracted to EIE (Mestre, Italy) who are also responsible for the enclosure for the VLT Survey Telescope.

EXPECTED PERFORMANCE

Table 3 gives the anticipated 5 σ 15 minute magnitudes on the Vega scale for photometry at 1.2 airmass in a 1.6 arcsec diameter software aperture, for a median site seeing of 0.66" at 0.5 μ m, using the predicted system performance with protected silver coated

mirrors, and assuming the given sky brightness and atmospheric extinction.

The survey speed actually achieved for large-area surveys depends on the limiting magnitudes sought, the detailed observing strategy used and the overheads for the various dithers, steps and readouts, and control activities needed. For large-area surveys the combination of VISTA's collecting area and field of view will make it the world's leading facility for large-area near-IR surveys from 2007.

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VISTA is supported by a grant from the UK Joint Infrastructure Fund to Queen Mary University of London on behalf of the 18 University members of the VISTA Consortium of: Queen Mary University of London; Queen's University of Belfast; Universities of Birmingham; Cambridge; Cardiff University; Universities of Central Lancashire; Durham; Edinburgh; Hertfordshire; Keele University; Leicester University; Liverpool John Moores University; Universities of: Nottingham; Oxford; St Andrews; Southampton; Sussex; and University College London.

REFERENCES

- Atad-Ettdgui E. & Worswick S., 2002, Proc. SPIE 4842-21.
- Bezawada N., Ives D., & Woodhouse G., 2004, Proc. SPIE 5499-03.
- Craig S. et al., 2003, Proc. SPIE 4837, 178.
- Dalton G. et al., 2004, Proc. SPIE 5492-34.
- Emerson J., & Sutherland, W., 2003, Proc. SPIE 4836, 35.
- Love P.J. et al., 2004, Proc. SPIE 5499-08

ALMA NEWS

T. WILSON

The first edition of the European ALMA newsletter is now available at: <http://www.eso.org/projects/alma/newsletter/>

This contains information about progress in the planning and construction of the Atacama Large Millimeter Array. A staff consisting of Carlos De Breuck, Martin Zwaan, and Tom Wilson assembles and edits project information. The newsletter will appear quarterly, so the next edition will appear in October 2004.

In the the first edition are short descriptions of: the ALMA Construction site near San Pedro de Atacama; the ALMA Regional Centers (ARCs); new personnel; the current state of the antenna selection process; the plans for ALMA community day (Sept 24, 2004, in Garching); and upcoming events.

The newsletter can be viewed as a web page or can be downloaded as a PDF file. You can also add yourself to the mailing list by sending an email to: majordomo@eso.org with “*subscribe alma-newsletter*” in the first line of the body. You will then receive email announcements when new editions become available.

LA SILLA NEWS

L. GERMANY

It is with a very heavy heart that I have had to bid farewell to La Silla after my four years there as an ESO fellow. I have really enjoyed the work, my colleagues, and meeting a substantial fraction of the European observational community during that time.

Arriving to fill the service queues at the 2p2m is a new OPA, Mauro Stefanon. Mauro is not a stranger to La Silla Observatory – he was involved in setting up the REM project. We welcome him back and wish him well for his year as part of *SciOps*.