

UCO

UNIVERSITY OF CALIFORNIA OBSERVATORIES  
LICK · KECK · TMT

## UCO on-line Newsletter: June 2006

Members of the UC astronomy community,

This is a short summary of UCO news of interest to the broad UC astronomy community for the period February - June 2006.

Regards, Mike Bolte, Interim Director, UCO

### • Mt Hamilton News

- **Rem Stone:** Although it is hard to imagine Mt Hamilton without having a picture of Rem Stone immediately coming to mind, Rem retired as Director of Mountain Operations on March 31, 2006. There will be at least two celebrations of his time at Lick Observatory in the Fall of 2006. Dr. Elinor Gates agreed to step up to the role of Interim Operations Director and has done a wonderful job. After considering various options, we approached Rem about being recalled part-time as Director of Operations. He agreed and will probably be back on staff July 1.
- **APF:** The Automatic Planet Finder facility is moving along steadily. The primary mirror polishing is going slower than scheduled and this is the pacing item for the project.
- **Remote Observing:** The Nickel Telescope has now been used several times from Santa Cruz in a fully remote mode. We are planning the first "outside" remote user in June and hope to be able to open up the telescope for regular remote use in the Fall.
- **Mt Hamilton Facelift:** Geoff Marcy is leading a planning effort and is PI on a proposal for funding to make a major update of the visitor-oriented exhibits in the main building.

### • Keck Observatory News

- **Keck Director:** Fred Chaffee is retiring after completing his second 5-year term as Director, with Taft Armandroff assuming that position on July 1. Fred has been a wonderful leader of the Observatory. In ten years with Fred at the helm, Keck transformed from a fledgling observatory with tremendous promise into the most productive and powerful groundbased observatory in the history of astronomy. Fred put together a very talented Observatory staff and built a very positive workplace culture at headquarters and at the summit. He has tirelessly pushed the entire Keck community to develop a long-range vision for the Observatory that will maintain its position at the very forefront of astronomical research. Fred has also been a champion of the idea of combining the scientific endeavours on Mauna Kea with a respect for and sensitivity to native Hawaiian culture. Best wishes and our thanks to Fred, and best wishes and welcome to Taft. [Armandroff announcement WWW link](#)
- **MOSFIRE:** MOSFIRE completed a very successful Preliminary Design Review in early April and the project was subsequently awarded the balance of its budget to complete via a 4-year commitment from the NSF TSIP program. [MOSFIRE WWW link](#)
- **LRIS-R upgrade:** The LRIS-R feasibility study being carried out at Santa Cruz has been completed and a review took place on June 7. In the end there is one spectacular LBNL CCD and two other very good devices. The review report has not yet been completed, but it is likely this project will move ahead full speed. [UCO Santa Cruz labs link](#)
- **Next Generation AO:** The Adaptive Optics Working Group (with Claire Max and Mike Liu as co-chairs) has been working very actively to define the science requirements of the next generation AO (NGAO) system for the Keck Observatory. They will present a science case and some strawman system concepts at an extended SSC meeting June 21/22. Thanks to the many members of our community who have participated in this large effort to evaluate the current-day AO capabilities and plan for the future needs.
- **LRIS ADC:** Also part of the LRIS major upgrade is the completion of an atmospheric dispersion compensator in the UCO shops. The ADC is built and the prisms are in the shop. The initial effort to anti-reflection coat the prisms (Solgel over MgF) did not produce coatings that met the specifications and we are in the process of evaluating the issues and planning a second attempt. The project and project status are described in the UCO shops WWW page that is linked above. The project PI is Joe Miller, Drew Phillips is Co-PI.  
  
**Update** All the steps of this coating process have now been worked out. A portable cleanroom is being assembled in the Santa Cruz shops and the MgF coatings will be applied, then Solgel via a spin-coating process at the end of June.
- **Keck Science Steering Committee (SSC)** The Keck SSC is the primary advisory body to the CARA Board and Keck Observatory Director. This is the group that established science-based direction for the Observatory. The current UC members are Ian McLean (Co-Chair), Jean Brodie and Alex Filippenko.

### • Thirty-Meter Telescope

- **CoDR:** A four-day Conceptual Design Review was held in May. There was a tremendous amount of activity in the project preparing for the review and wrapping up many loose ends. The final report of the committee is not quite complete, but overall the debrief from the Chair (Bill Frazer) was very positive. I've arranged with the Project office to make all the plenary session presentations available to UC faculty. At the following web sites you will need

username: ucfaculty

password: ucolick

[Overview Session talks](#)

[more talks](#)

- **Early-light capabilities:** In mid-July, the Science Advisory Committee (UC reps: Raja Guhathakurta, Betsy Barton, Andrea Ghez plus Jerry Nelson as Project Scientist) will hold a two-day meeting to agree on an early-light instrument/AO suite. This is a major event in the project timeline. You should hear from your UC representatives in the next few weeks as part of an opinion-gathering process.

## • UCLA IR Lab

The UCLA IR Lab (under UCO Associate Director Ian Mclean) has been extremely busy completing ongoing projects and starting new ones.

The main activities have been:

- completing commissioning and the data reduction pipeline for OSIRIS
- completing, delivering and commissioning SHARC, a near-IR camera for the Keck 1 AO system
- Putting FLITECAM, the 1 - 5 micron imager for SOFIA, to use at the Lick 3m telescope. The latest news about SOFIA is that this project will be reinstated into the NASA 2007 budget.
- continuing lead participation with Caltech and UCSC in MOSFIRE design
- contracts for participation in the Gemini Planet Finder instrument were put in place. The UCLA role is a major one with the IFU and spectrometer design being undertaken in the IR Lab.
- completing a conceptual design for IRIS, the integral-field spectrometer and imager to go behind AO of the TMT

[UCLA IR Lab link](#)

## • UCO Director Search

The Search Committee submitted a report in early May. Hopefully there will be some action on this appointment soon(!)

Mike Bolte - [bolte@ucolick.org](mailto:bolte@ucolick.org) - Last changes: 2006 June 15

ISB 375 831/459-2991

UCO/Lick Observatory and The Department of Astronomy and Astrophysics  
UC Santa Cruz, CA 95064, U.S.A.