

Minutes of the UCOAC meeting
UC Santa Cruz, 9 October 2012

Attending: Sandra Faber (UCO Director; UCSC), Aaron Barth (UCOAC Chair; UCI), Alison Coil (UCSD), Brian Siana (UCR, via Polycom), Mike Rich (UCLA), Ben Mazin (UCSB), Graeme Smith (UCSC), Chris Fassnacht (UCD, via Polycom), Alex Filippenko (UCB), John Wareham (Lick, via Polycom), Tomasso Treu (UCSB), Andrea Ghez (UCLA), Eric Becklin (UCLA), Claire Max (UCSC), Xavier Prochaska (UCSC), Garth Illingworth (UCSC), Connie Rockosi (UCSC), Rebecca Bernstein (UCSC), Bruce Bigelow (UCSC), Drew Phillips (UCSC), Maureen McLean (UCSC), Paula Towle (UCSC). Absent UCOAC members: Mike Bolte, Geoff Marcy, Ian McLean.

The UCOAC charter and current members may be found at:

<http://www.ucolick.org/ucoac/charter.html>.

The agenda for this meeting and all powerpoints may be downloaded at:

<http://www.ucolick.org/ucoac/meeting57/index.html>

Background on recent UCO events.

UCO Board composition. Director Faber reviewed the current situation regarding the formation of the UCO Board, which is not yet fully in place. At present, 2 UC astronomers have agreed to serve on the Board, and 5 UC administrators have been named. Invited UC administrators include Meredith Michaels (UCI), Margaret Delaney (UCSC), Dallas Rabenstein (UCR), Sam Traina (UCM), and Karl Pister (UCB). Sidney Wolff, who previously served on the UCO external review committee, has been named as an external member. Some UC astronomers have declined to serve on the Board. Once the Board membership is defined, it is expected that they will begin meeting very soon. UCOAC members expressed concern over the fact that UCOP was excluding UCSC faculty from serving on the Board, and that UCOP was excluding Caltech faculty from consideration as external members.

External Review letter: A letter was sent by the UCO External Review Committee to Provost Dorr on Oct. 6 expressing concerns about the UCO Board charter and membership. A copy of the letter may be found at the above URL.

Director search: The status of the Director search is still somewhat uncertain, but the APM states that the UCSC Chancellor is the appointing official. UCO and the UCSC Chancellor are proposing to follow the same general plan as in the previous search, with a systemwide search committee. UCOAC discussed how the search committee will be convened and how it might interact with the Board. The UCOAC is strongly in favor of a high-profile international search.

UCO Budget: UCOP has scheduled a meeting to discuss the UCO budget with Director Faber on October 30, and UCOP will send UCO a budget draft one week prior to the meeting. **Action item:** UCOAC will plan to hold a telecon after receiving the budget to discuss the implications and how to respond to it. Some major issues of concern are: (a) the status of the UCO 80/20 positions; (b) the annual increase in the UC Keck contribution; (c) the "accumulated debt" of \$1.9M; and (d) the FY13 budget.

Advertising and promotional materials: Faber showed the ad recently run by UCSC in a USA Today special issue on aerospace technology and space exploration. The ad was partly paid for by UCO and UCO was featured prominently. UCOAC discussed possible ways to mount a sustained campaign and the possible benefits of a sustained effort rather than one-off advertising.

Executive Session: The UCOAC then held an executive session to discuss the UCO budget breakdown and the Mt. Hamilton budget. Director Faber presented a high-level overview of the UCO budget plus details on externally funded projects. Xavier Prochaska presented his analysis of the costs of running Mt. Hamilton. Major conclusions from the discussion were: 1) Details are missing on a significant fraction of technical effort in the UCO shops, and better tracking procedures are needed. 2) The total cost of operating Mt. Hamilton (MH) is at least \$2.5 M if all associated costs in administration, faculty salaries, and UCO shops are included. For details on MH, see <http://www.ucolick.org/ucoac/meeting57/mhoperations.pdf>

Strategies for working with the UCO Board.

With the UCO Board partially in place and likely to start meeting soon, the UCOAC discussed interactions between the Board and the UC astronomy community, and the importance of having the UCO Board advocate effectively for astronomy within UC. At present it is unclear whether the UCO Director is an *ex officio* member of the Board and in attendance at all Board meetings. UCOAC members were strongly in favor of having the Director in attendance at Board meetings. Members also voiced support for having the UCOAC Chair as an *ex officio* Board member. Several other questions and issues were raised. UCOAC members were in strong general support of the following: Board members should declare any possible conflicts of interest. Board meetings should be open to the UC astronomical community (except for executive sessions). There should be no "gag rules" prohibiting Board members from discussing UCO issues with faculty or with the UCO Director. Meeting venues should sample the major facilities locations of UCO. **Action item:** Director Faber will plan to make contact with Board members, and UCO will send them background information on the Observatories describing current issues and goals. UCOAC members should establish relationships with their local campus Board members.

Launching the strategic planning process.

Director Faber presented background information on the strategic planning process, starting with the different ways the UC-ATF and External Review Committee (ERC) envisioned the strategic plan. The overall goal is to have a vision of how to achieve the ATF/ERC priorities, primarily over a 5-year time horizon but looking toward the TMT era (10+ years). Faber outlined 10 objectives for the strategic plan describing broad goals, personnel, facilities, support, and revenue. The strategic plan should be produced by UC astronomers, with the Strategic Planning Committee (SPC) appointed jointly by the UCO Director and the UCOAC. The strategic planning process was described, including consultation with Keck SSC and TMT SAC co-chairs, and other partners. Membership on SPC will include at least one astronomer from each campus, at least one member from the labs (LLNL and/or LBNL), plus additional members to broaden the base of expertise and to recognize that some campuses have a higher level of astronomy investment than others. Non-voting representatives or consultants will be added as needed. These might include Keck staff, a Caltech representative, and possibly an outside member with directorial experience. **Action item:** create a strategic planning webpage at the UCO website and post Faber's slides.

Faber and Barth presented a draft slate of SPC members, based on nominations from UCOAC members and other considerations. At present they have made an offer to a faculty member to serve as the SPC Chair, and are awaiting an official reply. UCOAC agreed that there should be an SPC vice chair. Once the Chair and SPC membership are settled, SPC should begin work rapidly. The ultimate goal is to have a strategic plan in place during Spring 2013, but UCOAC members expressed concern that shorter-term recommendations will be needed since UCOP may be making budgetary changes very soon. A consensus was reached that SPC should have some key recommendations in place by the end of 2012. **Action item:** Faber and Barth should appoint the committee as soon as possible, starting with the chair.

One issue of long-term importance is the Keck operational model, and UCOAC members expressed interest in convening high-level discussions with Caltech to begin addressing questions related to operations costs, fund-raising, and re-evaluation of partnership shares. **Action item:** Director Faber should raise these issues with Caltech.

Bernstein and Rockosi discussed infrastructure needs for the UCOSC labs in the TMT era with the goal of having an internal plan to which will be presented to the SPC. The overall vision is for UCOSC labs to focus on design, integration, metrology, and testing, and not on large-scale in-house fabrication. This allows the campus labs to remain lean, flexible, and cost-effective while still leading large instrumentation projects.

Planning for the Keck SSC meeting.

Ghez and Prochaska led a discussion of Keck issues relevant for the November 2012 Keck SSC meeting. This included an overview of instrumentation projects planned for NSF MRI or ATI submissions, including the KCWI red side, the OSIRIS detector upgrade, and K1DM3 (K1 deployable tertiary). Campuses must decide on which projects are approved for NSF proposal slots by early December. The UCOAC strongly endorsed all three projects. For K1DM3, the previous proposal was unsuccessful in part due to reviewers not being convinced that Keck was sufficiently committed to time-domain astronomy (TDA). Prochaska discussed possible policy changes to encourage TDA, including cross-institutional ToOs, encouraging both ToO and cadence observing, flexible scheduling to adapt to weather conditions, and having 3 Keck I instruments always "hot" and available for use. The following compromise provisions were suggested:

- There will be a maximum of one TDA opportunity per night.
- The existing observer is obliged to yield. However, co-authorship and other perquisites should be offered, as now.
- The maximum time duration is 1?? hour of dark time (can extend into 12° twilight time if time is usable).
- We will switch back to original instrument after a TDA opportunity (formerly it was one-way).
- A ToO will be conducted only if no cadence observation is scheduled for the same night.
- There will be no laser ToO unless the laser is already on.
- At least two instruments will be kept hot, and possibly three (this last to be discussed with Keck based on estimates of operations costs).
- TDA opportunities will start being scheduled within each institution's time allocation. An inter-institutional mode will be considered after experience has been gained.

UCOAC members were supportive of encouraging cadence observing but views were mixed on the

possibility of requiring both ToO and cadence observations on the same night (at up to 1 hour each), since this would be substantially disruptive to scheduled observers. The consensus view was that ToO observations should be mandatory except on nights when cadence observations were scheduled. On the issue of having 3 instruments vs. 2 instruments "hot" on Keck I, it will be important to have estimates of the increased operations costs required to accomplish this.

NGAO. Ghez gave an overview of the current Keck NGAO status. The project is very well advanced in design but funding is very limited. PDR was passed in June 2010. The funding required to complete NGAO includes \$37 M for the AO system and \$13 M for the DAVINCI IFU and imager. UCOAC enthusiastically endorsed NGAO as the top priority for possible future NSF mid-scale funding proposals, and for major fund-raising efforts tied to the Keck 20th Anniversary Gala. The UCLA development office is strongly engaged in fund-raising for NGAO, and NGAO is viewed as a very attractive project for foundation funding.

Lick Observatory Planning Workshop.

A Lick Observatory workshop was held on September 13-14 2012, at the SETI Institute in Mountain View, with about 35 attendees. The meeting was co-organized by Prochaska and Barth. Prochaska gave a summary of the workshop goals, outcomes, and recommendations.

UCOAC voted in support of a few of the straightforward recommendations from the workshop. These included the following:

CAT fee-for-usage: Since the CAT is currently only used by 2 groups, one of which is foreign, UCO should charge a fee for usage of the CAT in order to continue to maintain it. (These negotiations are underway.)

Reduced instruments: Low-usage instruments should be put into hibernation. If there is a need to re-activate them, the users should pay the required costs for extra staff time needed. These include PFCam, Gemini, and the Nickel Spectrograph.

ToO Policy: The UCOAC approved bringing the Lick ToO policy into accord with the Keck policy, making ToO interrupts mandatory for the observer rather than optional. (The UCOAC Chair abstained from this vote as he is leading the only current interrupt-mode program at the Lick 3-m.)

Other topics were discussed that either did not require a UCOAC vote, or which require further discussion. The Lick workshop attendees endorsed the idea of selling up to 1/3 of the 3-m observing time. Prochaska argued that this would completely cover costs only if it were financially beneficial if the per-night fees were in the area of ~\$10k, which is so high that it would be very difficult to find buyers. Another option for cutting costs would be temporary shutdowns. A one-month shutdown could save \$70k in staff costs. Larger savings could be realized by only operating the 3-m for 5 or 6 nights a week rather than 7. The Lick workshop attendees were in strong agreement that selling time is preferable to shutdowns in that it keeps the staff supported and keeps the telescope productive. No specific recommendations were made by UCOAC regarding possible shutdowns, and the various options need to be considered as part of the strategic planning process in the context of the entire UCO budget. UCOAC members discussed the negative impact of the current budgetary situation on the morale of Mt. Hamilton staff.

John Wareham discussed new ideas for increasing revenue at Mt. Hamilton, including summer

weekend food service, camping for Friends of Lick and other groups, and hosting corporate retreats. All were viewed as good ideas but each would only bring in a relatively small amount of revenue, and given the limited staff time available it will be important to prioritize which projects to pursue initially. Corporate retreats (single-day events) were viewed positively in that they could help promote the visibility and profile of Lick in the Silicon Valley business community and likely potentially bring in more revenue per event. **Action items:** Wareham should finalize the food and beverage contract and research the facilities rental market. Outreach to test the 3-m rental market should be pursued.

UCO and Keck development.

Filippenko presented an update on the Friends of Lick organization, which has raised about \$18k so far through membership fees. The first Board meeting was held at Mt. Hamilton on September 15.

Other development-related issues were discussed, including the general question of how the campuses can encourage instrumentation related development activities. The consensus of UCOAC members was that campuses with instrumentation programs have a more natural path toward instrumentation-related development, and it is not clear if other campuses' development offices will be supportive of development activities focused on the Observatories. Raja Guhathakurta has been appointed as Development Coordinator for systemwide UCO. It was agreed that systemwide astronomy development activities should be a regular UCOAC agenda item. **Action item:** UCOAC members should inform Raja about astronomy fund-raising activities on their campuses; this is a good time to get to know your Development Office if you don't already have a relationship.

Planning for the Keck 20th Anniversary Gala.

UCOAC members presented updates on each campus's efforts toward developing lists of invitees for the Keck Gala. Several members expressed an interest in having Gala attendees take tours of Keck and the Mauna Kea summit during the event, and the consensus was to encourage Keck Observatory to partner to support such visits. One proposed strategy is to hire private van operators to drive visitor groups to the summit, so that Keck minimal Keck staff and vehicles would not be needed, although some Keck staff would be needed to be available at the summit to show visitors around the building. UCLA is willing to sponsor a tour group and other campuses may be as well, but this needs to be coordinated with Keck and it is unclear whether Keck will be willing to do this. Another question is whether (at least) one astronomer from each campus should be present in order to interact with donors. **Action item:** Director Faber and Andrea Ghez should confer with Taft Armandroff about Keck Gala coordination.

[Subsequently after the UCOAC meeting, Director Faber instructed UCOAC members to assemble their lists of invitees and send them directly to Keck by October 19 so that planning can proceed in a timely fashion.]

Planning for the Lick 125th Anniversary.

Wareham and Faber led a discussion of options for a Lick celebration to be held on Saturday, September 7, 2013. Options include hosting a banquet dinner at some venue in San Jose (not favored- "boring"), an interactive event with booths and displays at some venue in San Jose, or a possibly smaller event with fewer participants at Mt. Hamilton. Overall the Mt. Hamilton event was favored, with the goal of bringing in potentially large donors and supporters. For an evening event, it might be optimal to have buses or vans to drive participants to Mt. Hamilton, and astronomers could accompany

them for the ride to interact with the participants. For fund-raising, an auction of historical items is being considered, and auctions of dinners with prominent UC astronomers. Rich suggested coordinating with the city of San Jose to hang Lick 125th banners in prominent downtown areas.

Action item: The UCO gala committee at UCSC should proceed to make plans for a Mt. Hamilton event that would be the culmination of a more sustained publicity campaign. UCOAC members should consider how their campuses can support the event. This is a future UCOAC agenda item.

UCO Faculty Responsibilities.

Faber described the draft UCO Faculty Responsibilities List (FRL), which sets out formal roles for UCO faculty in instrumentation, management, development, and outreach. The list is posted on the UCO web site and will be updated with more details and roles in the future.

Telescope and lab updates.

APF: Some problems have been solved by the "tiger team". The problems of telescope oscillations in the elevation and azimuth drives problem have not yet been fully solved but are better understood. The Readiness Review is scheduled for mid-november 16. Measurements with the spectrograph indicate that throughput is only 60% of nominal but image quality is good. Geoff Marcy has obtained funding from the Keck foundation to build a new fiber-fed spectrograph. When capabilities are known after the Readiness Review, a workshop will be held to assess systemwide interest in observing with the telescope.

Keck segment repair: At present, repairing the Keck mirror segment cracks is estimated to cost \$10M. The current plan is to sell ~20 nights/year over a 5-year period to finance the repair.

UCLA IR Lab: Ian McLean sent slides with brief updates on UCLA IR Lab projects, but was not in attendance due to observing at Keck. At present, the UCLA IR lab has received only 50% of its requested \$300k annual contribution from UCO, and McLean emphasized the importance of this funding for maintaining the staff of the IR Lab.

TMT: Bolte provided slides but was not in attendance. NSF has chosen to "engage with the TMT Project" with the possibility of joining as a partner in the future. Currently the TMT Board is working on TMT definitive agreement among the partners. A proposal has been submitted to the Moore foundation for \$30M in TMT funding for FY13/14. Upcoming SAC meetings will be held in China and India, and Board meetings in China and Canada. Illingworth suggested holding a TMT science meeting in the near future.

Changes to the Keck TAC.

Previously, the Director served as chair of both TAC panels (Galactic and extragalactic). Faber has now delegated this to two UCO faculty who will serve as panel chairs. UCO will be writing a TAC Charter to codify the TAC process, including 3-year terms for TAC members and selection of TAC members to be done by the Director in consultation with UCOAC members.

These minutes were provided by UCOAC Chair Aaron Barth and UCO Director Sandra Faber