

UNIVERSITY OF CALIFORNIA, ACADEMIC SENATE

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February 7, 2012

VICE PRESIDENT STEVEN BECKWITH
DIRECTOR MICHAEL BOLTE

Re: Comment on Review of UC Observatories

Dear Steve and Michael:

At its meeting on January 25, the Academic Council held an initial discussion of the review of the UC Observatories based on comments it received from the University Committee on Research Policy (UCORP), the University Committee on Planning and Budget (UCPB), and the Coordinating Committee on Graduate Affairs (CCGA). Council will solicit further input from the Senate divisions in order to ensure that the perspectives of the astronomy faculty are considered. Council has requested that feedback for discussion at its meeting on March 21 and will formally respond to the review after that meeting. In the meantime, for your information, I am forwarding to you the three letters we received from the Compendium committees, with the understanding that the views expressed in them have not been endorsed by Council.

Sincerely,

A handwritten signature in cursive script that reads 'Robert M. Anderson'.

Robert M. Anderson, Chair
Academic Council

Cc: Academic Council
Executive Director Winnacker

Encl.



UNIVERSITY COMMITTEE ON RESEARCH POLICY (UCORP)
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January 18, 2012

**ROBERT ANDERSON, CHAIR
ACADEMIC COUNCIL**

RE: External Review of the UC Observatories

Dear Bob,

The University Committee on Research Policy (UCORP) has met and discussed in detail the external review of the UC Observatories (UCO) commissioned by Provost Pitts and stewarded by Vice President Beckwith. UCORP bases its comments not only on the review summary circulated October 31, 2011, but also on the following materials:

- [Report from UC Astronomy Task Force](#), 7/30/11: The task force was comprised mostly of UC faculty. Includes UC community input summary (pp 11-17), investment recommendations (pp 32-34), governance recommendations (pp 34-36), UC community letter re systemwide investment (pp 41-47).
- [Self Study Report from UCO](#), 8/9/11: Includes UCO mission statement (pp 3-4), organizational structure (pp 4-16), budget (pp 16-20).
- [Background Materials from UCOP](#), 8/10/11: Includes review framework and objectives (pp 2-5), 2001-02 UCO review and comments (pp 21-101), 2006 MRU recommendations (pp 102-107), map of UCO review charge points to systemwide objectives (pp 115-119), UCO review process flow (p 121).

Further, UCORP consulted both separately and jointly with UCO Director Bolte and Vice President Beckwith on this matter over the course of several meetings spanning the 2010-11 and 2011-12 academic years. UCORP also considered a UCPB discussion of the review. UCORP received responses to the review from astronomy and astrophysics faculty in several divisions, expressing uniform endorsement of the Thirty Meter Telescope (TMT) trajectory, heartfelt appreciation for the recognition of scientific excellence, and cautious support for the proposed centralized leadership structure that would add an advisory committee (with Senate representation) to UCO and UCOP; far less certain were plans for adjusting to the current era of declining budgets.

UCORP congratulates the UC Astronomy and Astrophysics community in general, and UCO in particular, for their long history of world class science, and commends the initiatives they have taken to maintain this leadership position into the future. UCORP recognizes the world-class astronomy and astrophysics pedigree of the external review committee, and considered seriously their insightful analysis and recommendations for UCO. Moreover, UCORP feels compelled to point out the crucial role redshift

measurements with the Keck telescopes have played for both competing teams awarded the 2011 Nobel Prize in Physics. This is an excellent example how UC investment in astronomy facilities and operations has provided value to scientists in the UC system as well as worldwide, with impacts and benefits extending well beyond the faculty directly funded. Nonetheless, UCORP has identified several concerns with the UCO review, the review process, and the structure, management and administration of UCO. These concerns are listed below, grouped by charge points from the review, followed by a set of recommendations.

Charge Point 1 (Management):

Review the management of the UC Observatories and advise on how effectively UCO fulfills its stated mission, meets its goals, manages its operations, and responds to or helps set systemwide priorities in astronomy and astrophysics research.

Concerns and Observations:

- The external reviewers felt they had neither adequate time nor adequate data to provide an even more robust and detailed evaluation of the UCO (p 10).
- The Keck Observatory and UCO were conflated throughout the review, whereas these should be considered as separate entities for the purposes of administrative and managerial evaluation.
- No comprehensive UCO strategic plan exists – neither for scientific advancement nor for operational improvement.
- Significant improvement in internal UCO operations can be realized and enhanced communication between UCO and UCOP is necessary. The 2001-02 external review of UCO found similarly (see Background Materials from UCOP, Appx 1, pp 4-5 (pdf pp 25-26)).
- UCO is facing a current operational deficit of at least \$1M.

Discussion:

UCO has an impressive academic resume and a lengthy heritage and legacy at the University. However, UCORP believes that these attributes cannot, and should not, insulate UCO from short-term or long-term budgetary vicissitudes. UCO's response to the current fiscal crisis has not been commensurate with the adjustments made in other areas of the UC research enterprise. For example, during a period in which surviving campus research entities have lost nearly one-third of staff FTE, UCO has lost only 3 to 5 (of 45) staff FTE. During a period in which most faculty merit increases have been funded by internal fiscal trade-offs at the campus level, it appears that UCO and UCOP have not worked together to implement similar adjustments for UCO faculty merit increases, resulting in an unresolved operating deficit.

UCO seems to view itself as an icon, and UCOP seems to be relishing the role of iconoclast. Neither perspective facilitates cooperation, and together they have created an impasse. It is essential that UCO budget processes become standardized with those of other UC units for efficiency and transparency. UCOP should work to facilitate this transition, rather than disregarding UCO efforts that may fall short of full compliance.

Due in part to deficiencies in communication with UCOP, the UCO operating deficit has remained unaddressed for several years. Significant communication and management difficulties in the UCO-UCOP relationship were identified in the 2001-02 external review, and since then the situation apparently has only deteriorated further. UCO is urged to become more fully aware of the systemwide fiscal climate of which it is a part, and to view itself as an integral part of the University – one that must share the pains and joys of

being part of the UC. UCOP is urged to be mindful of the difficult transition facing UCO, and to work with UCO to ease the transition.

UCORP notes that UCOP and the campuses have undergone significant, at times traumatizing, constriction and change over the past several years, while it appears that UCO is only now beginning to experience the severity and difficulty of this transition. Budgetary and “change management” best practices developed at the systemwide and campus levels must also be applied by UCO.

Charge Point 1 (Management) (continued):

Observation:

- The justification for maintaining the 80-20 faculty funding split at UCO is unclear, and the potential implications of ending this practice are even more difficult to assess. UCORP would like to see the Academic Senate undertake a detailed analysis of this aspect of UCO.

Discussion:

UCORP is dubious of the merit of maintaining the practice of funding faculty FTE with centralized funds. To be clear, UCORP considers it common practice to fund faculty FTE with external sources of funding, e.g. industrial, private donor, or government agency funds. However, the use of UC systemwide funds to reduce or eliminate faculty teaching obligations seems questionable. At the same time, UCORP is aware that UCSC probably could not immediately absorb the full cost of these FTE in the event that systemwide subsidy is withdrawn. If the legacy practice of funding faculty FTE with centralized funds cannot be successfully defended, a transition plan for UCO faculty funding needs to be developed involving the Academic Senate and administrators at UCO and UCSC.

Charge Point 2 (Academic Quality and Performance):

Assess the quality and performance of the UC Observatories, its current programs, collaborations, facilities and accomplishments.

Charge Point 3 (Priority Setting Processes):

Assess the process by which the UC astronomy and astrophysics research community determines systemwide priorities. Evaluate how UC invests systemwide funding to address these priorities, and how well this current investment addresses UCs needs.

Review and recommend an optimal way for UC to determine systemwide priorities for astronomy and astrophysics research across the multicampus system, how it may invest systemwide funding to address these priorities, and how well the current investment addresses UCs needs.

Charge Point 4 (Future Needs):

Assess the likely future requirements for UC investment in astronomy and astrophysics in the next decade and advise on what combination of resources, facilities, and funding structures will be needed to meet these requirements.

Concerns and Observations (Charge Points 2, 3 and 4):

- UCORP could discern no comprehensive and systematic process by which systemwide astronomy and astrophysics priorities are being determined.
- UCORP observes that the UCO review did not address the second half of charge point 3 that asked for an assessment of how UC funding addresses the priorities of the UC astronomy and astrophysics community, **and how well this investment addresses the broader needs of the UC.** For example, the

review does not evaluate opportunity costs for major future investments such as TMT against other possible uses of these funds within UC. UCORP feels that this charge point was beyond the reasonable scope of the UCO review committee. Nevertheless, the UCO review should not be interpreted as justification that the current level of UC investment in UCO and the proposed future UC investment in TMT is the best use of systemwide funds.

- The external review “broadly endorses the future vision for UC optical and infrared astronomy presented by UCO and the UC Astronomy Task Force, which is built around participation in the Thirty-Meter Telescope (TMT) project with continued participation in the Keck Observatory”. However, the external review also cautions that “it would be prudent for UCO and the University to consider carefully the long-term obligations that entry into the TMT project will entail, and the likely impact that it will have on the infrastructure and staffing of UCO”.
- UCORP notes that UCO seemingly expects the TMT trajectory to be funded, in part, by redirecting monies currently used in fulfillment of the Keck contract. UCORP again notes that Keck is a separate entity and that its plans should not be conflated with plans for TMT or UCO.
- If the proposed TMT trajectory is followed, it appears that meeting the TMT instrumentation needs will require development of off-campus facilities at considerable additional expense.

Discussion:

UCORP acknowledges the superlative academic quality of the science being conducted with the assistance of UCO. While the development of TMT may be the logical evolution of astronomy at UC, UCORP is concerned that more attention is needed to the process of academic decision-making about "big" research initiatives and their impact on the UC system. UCORP feels it would be beneficial to the UC system if the decision to make a long-term investment like TMT could be arrived at via a deliberate and competitive process that includes considering alternative projects of similar size.¹

UCORP also highlights the need for additional specificity regarding the fiscal implications of the TMT trajectory. This analysis should be framed in terms of the future needs of astronomy and astrophysics as a field and the future needs of the UC scientific community as a whole, not just the preferences of incumbent UCO-affiliated faculty. UCORP notes that local respondents indicate that access to Keck has been a significant recruitment tool both for faculty and graduate students, but it is unclear whether such success will survive reduced baseline access to TMT.

Recommendations:

In light of these concerns and observations, UCORP recommends the following:

1. UCO and UCOP need to resolve the current budget impasse and report back to UCORP.
2. UCO and UCOP must agree on acceptable budgetary processes and develop a realistic process to deal with the impact of reduced state funding. UCORP would like to review the UCO budget to understand the implications for systemwide research.

¹ UCORP notes that the recently convened joint UCORP-Administration Task Force on Principles, Process and Assessment of UC Systemwide Research Investments, aka the Principles, Process and Assessment (PPA) task force, has been tasked with recommending processes for making such determinations. Any TMT investment decisions should be guided by these recommendations, and no investment decision should be made in the absence of a comprehensive process including cost-benefit analyses and evaluation of alternatives.

3. UCO and UCOP should work collaboratively to resolve the two-way communication and management difficulties outlined above, and should institute procedures to avoid future problems in this regard.
4. UCORP wants to understand how the UCO budgeting and planning process will respond to the needs and goals of all UC astronomy and astrophysics faculty as UCO deals with the current deficit and potential future budget reductions. Implementation of any necessary cuts should make every effort to avoid undue harm to the systemwide astronomy and astrophysics research portfolio.
5. UCORP suggests a Senate-led strategic review to recommend contextualized medium- and longer-term objectives and policies for systemwide investment in the observatories. In addition to UCORP and UCPB, the review presumably should include UCFW and CCGA due to issues regarding UCO support for faculty lines and graduate student research.
6. UCORP suggests that UCPB and UCAP initiate a detailed analysis of the current rationale for maintaining the 80-20 faculty funding split at UCO, investigate the implications of ending this practice, and report back to Academic Council with recommendations on next steps.
7. Successful completion of items 1-6 above, accompanied by codification of effective and ongoing Senate participation through existing shared governance structures, may obviate the need for the UCO Advisory Committee and the expansion of its responsibilities envisioned by the review.

We thank you for the opportunity to comment on this review, and we look forward to helping resolve the concerns outlined above.

Sincerely,



John Crawford, Chair
UCORP

cc: UCORP
Martha Winnacker, Executive Director, Systemwide Academic Senate



UNIVERSITY COMMITTEE ON PLANNING AND BUDGET (UCPB)

James A. Chalfant, Chair

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January 3, 2012

ROBERT ANDERSON, CHAIR
ACADEMIC COUNCIL

Re: External Review of the UC Observatories

The University Committee on Planning and Budget (UCPB) has been asked, along with UCORP, to consider the recent external review of the UC Observatories (UCO). While it is apparent to UCPB that the Observatories are one of the University's crown jewels that enhance its international visibility and prestige, we do not have enough information to advise the Senate or the Office of Research about its current or future budget.

In reviewing the UCO review documents, UCPB was reminded of the 2009 academic review of the Division of Agriculture and Natural Resources. Of course, there are many differences between UCO and ANR, but like ANR, the UCO is a centrally funded academic program competing for a shrinking share of State resources. In addition, the UCO review, like that of ANR in 2009, lacks detailed budget data, benchmarks, and performance metrics that would facilitate a thorough assessment.

UCPB notes that systemwide resources currently used for the UCO could theoretically be used for other priorities; however, UCPB does not have information that would allow us to advise about such trade-offs. We do believe that the conversation about cuts to centrally funded programs should account for the importance of maintaining systemwide activities, but that no systemwide programs should be immune to cuts. AS such, the UCO budget should be considered alongside other centrally funded programs, and UCPB should be involved in questions regarding how much of the UCO budget should be funded from the center. UCPB acknowledges that such a discussion involves different information than an academic review of this sort, but that such discussions also are urgently needed, making the review seem rather incomplete if not beside the point.

Sincerely,

A handwritten signature in cursive script that reads "James A. Chalfant".

James A. Chalfant
UCPB Chair

cc: UCPB
Martha Winnacker, Senate Executive Director

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January 19, 2012

ROBERT ANDERSON
ACADEMIC COUNCIL CHAIR

Re: Systemwide Review of the University of California Observatories

Dear Bob:

CCGA has reviewed the external review committee report for the UC Observatories/Lick. The Committee recognizes that many graduate students participate in research involving UCO/Lick, including students' dissertation research. Consequently, CCGA members were surprised that graduate education was not even mentioned in the report. CCGA considers the importance of UCO/Lick in maintaining excellence in graduate education in specific fields at the University of California an additional reason for UC to continue to fund it.

Please do not hesitate to contact me if you have any questions about CCGA's comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Rachael Goodhue".

Rachael Goodhue, Ph.D.
Chair, CCGA

Copy: Martha Winnacker, Academic Senate Executive Director
CCGA Members