UCOAC Meeting

UC Santa Cruz

Oct. 9, 2012

Sandy Faber

Recent Events

UCO Board -- status and members:

* Charter: mostly Beckwith as of 8/12; 2 more astronomers (up from 4); remove budget cut phrase from preamble
* Invited UC astronomers: Ghez (declined), Treu (declined), Tyson, Marcy, Bullock
* External astronomer: Sidney Wolff
* UC administrators: Rabenstein (EVS, UCR, chemist), Traina (VCR, UCM, soils), Michaels (VCPB, UCI, frmrly UCSC), Delaney (VCPB, UCSC), Pister (UCB emeritus, civil engineer; former Chancellor UCSC)
* Meet before end of October?

External Review Committee letter: copy in info packet.

UCO Director search:

* Dorr and Blumenthal have not agreed on who is to lead search. APM says George.
* George is collecting materials from previous search. Proposes to emulate.
* They will confer again in two? weeks.
* UCOAC opinion?

Recent Events, cont'd

Dorr-Beckwith budget meeting – Nov. 13?:

* Beckwith is back in loop; George is out; Brostrom is passive
* Key phrases from Dorr email, Oct. 3: (copy in info packet)
  - "Reaffirm decisions of Pitts/Brostrom" - Could be good: $7.5 M?
  - Disposition of "accumulated debt" $1.9 M - Huge threat
  - "Possible future funding" - What does this mean?
  - "UCO faculty funding on the UCOP allocation" - Scenarios in progress for discussion by UCOAC
  - Not mentioned: annual Keck increases $450 K taken out of UCO budget - Huge threat
* Probably will not receive bridge funding $0.5 K but can cope. WHAT IF $1 M???

USA Today ad: (copy in info packet)

* Total cost $20 K; UCO share $1800
* Did we do the right thing?

New Lick tourist/promotional brochure (copy in info packet)

Working with the UCO Board

Questions the Board may ask:

* Cost of UC OIR astronomy relative to other sciences at UC
* Can UC afford OIR astronomy in era of straightened budgets?
* Why is OIR astronomy "worth it" to UC?
* Why is TMT a good idea? UC future with no TMT?
* Why should we continue to operate MH, and can it be cheaper?
* Strategies to put more $$$ into Keck instrumentation
* Selling more Keck time: what is limit?
* Restructuring the UCO faculty positions

Having our voice heard in Board meetings:

* Assume that the Director is *ex officio* and ask to see all correspondence
* Director may put items on the agenda
* Have all members declare conflicts of interest
* All sessions public except for executive session
* No gag rules
* Meet at UCSC, MH, and Keck, not just Oakland

Role of UCOAC??

Early preparations:

* Call members to introduce myself and learn their concerns
* Send an information packet before first meeting giving background info and stating UCO issues and goals

UC OIR Strategic Plan

History

* Lick strategic plan 2008; Keck strategic plan 2009

* Broad consensus emerges that a more holistic view is needed:
  Keck, TMT, Lick, and UCO shops

* ATF calls for ***two*** strategic planning processes:
  - One under aegis of Academic Council (loosely, now the UCO Board)
    - Broad view: "UC activities in the broadest range of fields that leverage existing shared facilities in the UC system".
  - UCO makes strategic plan for next year and decade for shared OIR facilities

* External Review Committee calls for ***one*** planning process: UCO Board "reviews approves annual program plans and longer-range (5 years) strategic plans."

* Meanwhile, extraordinary budget pressures mandate most efficient use of $$$.

External Review Committee had strong recommendations on strategic planning for UCO

Quotes from ERC:

- *Fabrication of instruments for TMT will require significant upgrades to the Santa Cruz laboratory facilities…The UCLA Infrared Laboratory also needs enhanced levels of support.*
- *Prudent for UCO and UC to consider carefully the long-term obligations that entry into TMT will entail, and likely impacts it will have on infrastructure and staffing of UCO.*
- *Long-term future of Lick Observatory should be critically examined as part of a strategic planning exercise.*
- *We did not fully examine the rationale for maintaining current number (14) of "80/20" positions, but are concerned that eventually the cost of maintaining this level of staffing will compete with other UCO priorities.*
  - *This issue should be addressed as part of our recommended strategic planning process, in the context of future needs in the TMT+Keck era.*

Strategic Planning Objectives (draft)

1) In a time of budget pressures it is particularly important to have a vision for what UCO will become in 5-10 years.

2) The strategic plan should be consistent with ATF/ERC priorities.

3) Main plan: 5 years but with look-ahead to TMT era (10 years).

4) Plan should establish a set of goals and desired outcomes with appropriate actions and timescales.

5) Plan should consider outside competition and designate clear areas where UC should aspire to be world-leading.

6) Plan should be realistic regarding needed personnel, facilities, and support requirements and costs.

7) Plan should outline a realistic revenue strategy that UC can support over the long term.

8) Plan should identify areas where UC scientific and technical leadership are required.

9) Plan should contain a process whereby faculty and resources are matched to achieve maximum efficiency.

10) Plan should consider the operation of Keck, Mt Hamilton, UCO, and TMT as an organic whole.

Strategic Planning Process (draft)

1) Plan should be directly produced by UC astronomers.

2) The SP committee is appointed jointly by the UCO Director and the UCOAC and reports to these entities.

3) The SP committee will consult widely with UC astronomers and within the wider UC community, including UC administrators with interest in and experience with the UC OIR astronomy program.

4) The SP committee will solicit white papers, conduct polls, and organize regional meetings (north and south) and topical workshops (e.g., Mt Hamilton, Keck, TMT).

5) The SP committee will consult closely with the Keck and TMT SAC co-chairs and with representatives from Caltech astronomy. Other TMT partners?

6) The SP committee should be provided with support through the UCO Director's office to enable it to carry out its task and to be provided with timely information about the Observatory.

Strategic Planning Membership and Timescale

MEMBERSHIP:

1) Approximately 12 UC members from all 8 astronomy campuses and the DOE labs.

2) One member from each campus and one additional member from campuses that are most heavily invested in OIR facilities (e.g., UCSC, UCLA, UCB).

3) Non-voting representatives from the Keck and TMT projects and additional consultants with specific expertise as necessary.

4) Emphasis on scientists with experience on major instrumentation projects and the organization and operation of major facilities and projects.

5) Chair to be selected jointly by the UCO director and chair of UCOAC.

TIMESCALE:

1) Report to be submitted to the UCO Director and UCOAC by May 1, 2013.

2) Report to be copied to the UCO Board.

UCO Faculty Responsibilities List (FRL)

See full list at
http://www.ucolick.org/administration.html

RESPONSIBILITIES	FACULTY
Director	Faber
Associate Director, Lick Observatory (LO)	Prochaska
Associate Director, Instrumentation	Rockosi
Associate Director, UCLA InfraRed Lab (IR Lab)	McLean (UCLA Faculty)
Associate Director, Thirty-Meter Telescope (TMT)	Bolte
UCO Cabinet Member	Bolte (ex officio, Assoc Dir TMT) Brodie (ex officio, Commun Coord) Illingworth Koo (ex officio, Commun Coord) McLean (ex off, Assoc Dir UCLA IR Lab) Prochaska (ex officio, Assoc Dir LO) Rockosi (ex officio, Assoc Dir Instruments)
Provides advice to the Director, prompt response to emergencies, problem-solving, budget planning, policy development.	
UCO Representative to Systemwide Optical/InfraRed (OIR) Strategic Planning Committee	Prochaska
Internal Strategic Planning Committee Member	Bernstein Epps Gavel[a] Max McLean Rockosi Smith
The Internal Strategic Planning Committee is an ad hoc committee charged with developing internal UCO input to the systemwide OIR strategic plan. A major focus will be on UCO instrumentation efforts and the staff and infrastructure needed for that but the committee will also consider broader issues. Suggestions from this internal committee will be forwarded to the systemwide committee for discussion, incorporation, and/or modification. The internal committee will also act as a resource for the systemwide committee to provide factual data on UCO operations.	
TMT Board Member	Bolte
TMT Scientific Advisory Committee (SAC) Co-Chair	Illingworth
TMT SAC Member	Bolte (ex officio, TMT Board Member)
CARA Board Member	Faber
Keck Scientific Steering Committee (SSC) Co-Chair	Prochaska
Keck SSC Member	Faber (ex officio, UCO Director) Nelson (ex officio, WMKO Proj Scientist) Bernstein
Keck Adoptive Optics (AO) Planning Committee Member	Max
UCOAC Member	Faber (ex officio, UCO Director) Prochaska (ex officio, Keck SSC co-chair) Illingworth (ex offico, TMT SAC co-chair) Smith
The UCOAC is the systemwide advisory committee that advises the UCO Director on the UC OIR facilities and instrumentation program.	
Keck Extragalactic TAC Chair	Faber
Keck Extragalactic TAC Co-Chair	Guhathakurta

UCO Faculty Responsibilities List (FRL)

Novel positions:

RESPONSIBILITIES	FACULTY
Director	Faber
Associate Director, Lick Observatory (LO)	Prochaska
Associate Director, Instrumentation	Rockosi
Associate Director, UCLA IoIoBod Lab (IR Lab)	MeLean (UCLA Faculty)
Communications Coordinator	Brodie Koo
The Communications Coordinator(s) and Director together are in charge of developing an overarching communications strategy for UCO. Roles: editors of the UCO Newsletter, editors of the Lick Observatory Newsletter, co-editors (with the Director) of the UCO Annual Report, faculty advisors for the UCO website, managers of the UCO Facebook page and other social media, final editors of all UCO press releases, and editors and advisors for communications to UCO donors and friends groups.	
Development Coordinator	Guhathakurta
The Development Coordinator and the Director together are in charge of formulating, prioritizing and advancing UCO's fund-raising needs. Roles: principal contact with donors, interface with private foundations, mobilize faculty to prepare proposals for available opportunities, plan UCO fund-raising events, identify and court donors, coordinate with UCSC and systemwide UC/OIR Development personnel and groups.	
Assistant Development Coordinator	Brodie
Education & Public Outreach (EPO) Coordinator	Max
The EPO Coordinator is responsible for targeting several disparate constituencies: K-12 education, community colleges, undergraduate and graduate education at the university level, and the general public. Role: to develop a tightly knit program that is both efficient and mutually reinforcing, with itself and with other UCO activities.	
Friends of LO Faculty Liaison	Smith
The FOLO Faculty Liaison serves as a convenient single point of contact between FOLO and UCO and ensures that FOLO questions are directed to the proper UCO faculty or staff member to deal with them. He/she also serves as a resource to FOLO to provide them with stimulating and enjoyable activities. The FOLO Faculty Liaison serves under the Development Coordinator and takes direction from the DC.	
The UCOAC is the systemwide advisory committee that advises the UCO Director on the UC OIR facilities and instrumentation program.	
Keck Extragalactic TAC Chair	Faber
Keck Extragalactic TAC Co-Chair	Guhathakurta

APF Status

Major push began 10 August, weekly team meetings. Bob Kibrick recalled 20% time. ***Readiness Review scheduled for Nov. 16.*** Need a meeting to assess systemwide demand and develop operations plan.

TELESCOPE AND DOME:

1) Many faulty components in telescope and dome drives were found and replaced.
2) Az and elevation drives: drives oscillate, accelerometers detect 33 Hz resonances. We are going through systematic re-tuning of servo loops. Sent Kyle Lanclos to PMAC class.
3) Dome is slaved to telescope; had jitter. New Baldor drives installed. Dome working.
4) Oscillations monitored, now possible to observe safely. ***On-sky data are now coming.***
5) Major goal for Readiness Review is to cure drive oscillations and track properly.

SPECTROGRAPH:

1) Optics are aligned. Image quality good. Focus is stable with temp.
2) Temperature control components are working, are being exercised.
3) Spectrum moves with temperature. Electrical feedthrough needs to be isolated from spectrograph frame. Already more stable than HIRES. Not clear if motion is a problem.
4) Throughput is 60% of nominal, 13% at 6000 A. (26 surfaces)
5) Marcy has $1.2 M Keck grant to build a second spectrograph.

TMT Status

Per Mike Bolte, who is in Tokyo for TMT Board meeting:

1) NSF selected TMT: "Following a rigorous review process, the NSF has chosen to engage with the TMT Project to plan a partnership model for the TMT Telescope which, depending on circumstances, the NSF may join later in this decade."

2) Bolte/Soifer/Stone are completing the cooperative agreement with the NSF and crafting a Letter of Announcement for the international partners. Also making an Execution Plan for the NSF Cooperative Agreement (Bolte lead).

3) Working on the TMT Definitive Agreement with international partners.

4) Moore Foundation TMT proposal for FY13/14 just submitted; $30 M.

5) In the next year, SAC meetings in China and India and Board meetings in Japan, India, China and Canada. ***Should UC take lead to organize the TMT science community?***

6) Indian joint announcement with Secretary Clinton with a paragraph about TMT and Indian commitment of $140M.

7) Early September: Japanese papers reported that Japan would buy in at 25%.

SAC Preferred Instrument Phasing Scenario

- Eight instrument capabilities:
  1. High-Resolution Optical Spectroscopy (HROS-UC-2)
  2. High-Resolution, Near-IR Spectroscopy (NIRES-B)
  3. Multi-IFU, Near-IR Spectroscopy (IRMOS-N + AO upgrades)
  4. Adaptive Secondary Mirror (AM2)
  5. Mid-Infrared, High-Resolution Spectroscopy (MIRES)
  6. High-contrast imaging (PFI)
  7. Multi-IFU, Near-Optical Spectroscopy (VMOS + AO upgrades)
  8. High-Resolution, 5-18μm Spectroscopy (NIRES-R)
- One new capability every 2.5 years on average
- Starts in 2016 and ends in 2038
- Total cost of $405M at a rate of $21M/yr after first light