

UCO Project Council
Aug. 13. 2013, 10 AM-noon
Minutes, v. 1 draft

This was the first meeting of the new UCO Project Council (“PCouncil” for short).

The PCouncil is comprised of all UCO PIs at UCSC who are using the UCSC technical facilities for projects in service to UCO. This includes projects in the Instrument Lab, software, and mountain technical staffs. Ex officio members also include the Director, the Associate Director for Instrumentation, Lick Observatory Superintendent, Technical Facilities Manager, Manager of the Scientific Programming Group, and the Assistant Director for Business and Administrative Services (or their delegates).

Minutes will be public and posted on the UCO reports webpage. Copies will be sent to the UCOAC, UCO faculty, and UCO Research Scientists.

Summary of major action items and decisions: ** follow up.

- 1) The draft list of goals and functions sent by Sandy on Aug. 1 was adopted as a starting point (see below). Bring discussion of future projects and priorities forward in order to create a better framework for planning.
- 2) The Council will meet on the second and fourth Tuesdays of each month at 10 AM-noon.
- 3) There should be a standard agenda. ** Sandy will make one for the next meeting.
- 4) Volunteers for Labs Building Committee: Gavel, Bigelow, Phillips, Cowley, Rockosi, Myra. The requirements document is 80% done. ** Sandy needs to find a chair.
- 5) Hold a review of SHARCS/IRCAL camera. ** Connie schedule this.
- 6) Hold a review of the ShaneAO laser enclosure. ** Don,schedule this.
- 7) Dave Cowley: prepare a schedule overview for all projects in shops. To be discussed at next meeting.

Purpose and functioning of the Council

List of goals and functions for the PCouncil, sent by Sandy on Aug. 1, as follows:

- 1) Create a coherent and comprehensive view of technical projects that are active in the

Observatory at any one time, and the schedules and deadlines attached to each one.

2) Discuss the technical manpower schedule and set priorities for how personnel are to be assigned to projects, in the next two weeks and over the longer term.

3) Acquaint the Director with progress being made on projects, which ones are running over time and budget, and develop strategies to address.

4) Discuss new candidate instrument proposals and whether there are resources to execute them.

5) Provide a forum for internal review of new proposals, to improve proposal quality and accuracy of cost estimating.

6) Set Observatory-wide requirements for project planning and reporting at UCO/UCSC. Help to identify appropriate tools and work with the Business Office to implement.

7) Provide a forum for long-term technical strategic planning in UCO. What instrumental techniques and technologies do we want to be good at? Where do we need to invest? What should our capital plan look like?

8) Assist the Labs Building Committee for the new UCO Instrument Laboratory by supplying functional requirements and reviewing documents and plans (and probably doing some actual work).

Smaller news and action items: ** means follow up

- Sandy: let UCLA know about the PCouncil and invite their participation. DONE.
- Sandy: add Claire to the PCouncil email list. See if Graeme wants to attend. DONE.
- Paula: create PCouncil email alias: pcouncil@ucolick.org DONE.
- Dave C: ** start report on 36-in floor. DONE.
- X: Dave Hilyard will install new Sieker gratings in Kast spectrograph at next optical servicing on MH. ** Rebecca Zeilon needs early date to start next gift from Sieker.
- X: repainting the 36-in refractor has started. ** Action needed to move this along?
- Sandy: convene UCSC NGAO planning group. DONE.
- Myra has flow charts that outline the process for preparing new proposals, including budget estimation. All PIs should use these when preparing proposals.
- ** Drew and Myra meet to discuss KCWI coatings budget.
- Are we wasting money limping along without a machinist? ** Sandy talk to Heather and Dave about hiring two apprentices in the shops. Union rules?

Ongoing projects in the UCSC shops:

- Keck 1 Deployable Tertiary (K1DM3): Ramping up, full steam by Jan 1?
- Keck laser mount: fabrication in progress.
- KCWI-blue: lenses are done, CCD software (Will/SPG)
 - Coatings: Solgel on front window, protected silver (one mirror), camera lenses (Drew)
 - Camera assembly: waiting for coated lenses
- Shane AO (Gavel): On Shane in November? SPG is doing motor-control software. Intense work in shops until end of year.
- Shane AO laser and enclosure: starts next spring.
- Shane AO SHARC (IRCAL) camera: detector software, dewar?
- TMT: motor-control daemon (Will/SPG)
- APF: safety-related, autonomy software; guider software (Will/SPG); safety hardware, debugging (Cowley, Peck, Saylor).
- CAT motors (Will/SPG). \$15 K from UC Davis.
- Kast detector (Will/SPG). Choice is cheap upgrade vs. new capabilities. Not funded yet.
- GPI (Gavel): GPI is shipping now. There may be future work next year involving Gavel and Dillon. PIs are Macintosh and Graham, and there is deep involvement by Larkin and Fitzgerald at UCLA. This was really a UC project even though not led from UCO. We can brag about serving the UC astronomy community.
- TMT/MOBIE (Bernstein and Bigelow): Conceptual Design Review on Oct 28, 29. A group is planning how UCSC can retain participation/leadership in this program after B&B depart. B&B would like to help in this effort.
- Coatings Laboratory:
 - Coatings development program is ending. Chamber upgrades nearly complete. Install magnetrons in coating tank (Ratcliffe 20%, thru next spring).
 - Collaboration with Kobayashi: Atomic-layer deposition (ALD)
- IRIS: a work package for Phillips is in place. ** Clarify.
- CCD detector testing for DEIMOS (Connie): funds will be forthcoming from Keck if we get detectors. ** Get detectors?
- DEIMOS grating: order the grating and fabricate mount. ** Get a quote (Connie, Cowley).

Shop capacity summary:

- Engineering is committed through May.
- Machine shop will have free time starting Jan. 1.
- Electronics and detectors have free time.
- Software?

New proposal ideas:

- X: ATI proposal for Kast red spectrograph CCD. Holden, PI. Due Nov. 15? ** Get a postdoc to help write this?
- X: Keck NIRSPEC detector? Proposal was turned down by NASA. ** follow-up?
- Gavel: NGAO proposal at Keck will have strong UCSC involvement. Writing is underway.
- Gavel: ATI proposal to convert ShaneAO to usable science instrument (postpone to 2014,

when we can show results from FY13)

Gavel: ATI proposal: high-speed wavefront sensor for multiple laser guide stars

Drew: ATI proposal: \$100 K. Co-PI Kobayashi. Atomic-layer deposition on 0.5 m optics.

This could lead later to a Small Business Innovation Research: up to \$0.8 M.

CMOS detector testing (Gavel, Rockosi): Too nebulous for NSF? Maybe Small Business IR? Moore Foundation?

** Think about Moore and Keck Foundation ideas. Keck might like the ShaneAO upgrade.

Discussion topics for future PCouncil meetings:

- UCO detector strategy: in-house technologies and skills vs. outsourcing. What technology development do we want to support? Short term? Long term? Funding ideas.
- Detailed presentations of major projects:
 - ShaneAO + SHARC/IRCAL
 - AO laser mounts for Keck 2
 - KCWI-blue camera
 - Coatings research program
 - K1DM3
 - APF