

UCO Project Council
Nov. 24, 2013, 10 AM-noon
Minutes, v. 1 draft

1. Summary of major action items and decisions:

- 1) Next meeting date is Nov. 26. May have to move time to make room for Sandy's meeting with Dorr and Brostrom from UCOP.
- 2) Holden and Phillips will distribute their ATF proposals to the Council. (done)
- 3) Update annual budgets for: (Korossy, Cowley, analysts, PIs)
 - Late start of K1DM3 (1.5 months) (Prochaska)
 - 10 week delay in assembling lenses into KCWI barrel. (Rockosi)
 - Delays in Shane AO (Gavel)
- 4) Finalize the Lockheed contract, \$70 k. (Martin, Prochaska, Korossy)
- 5) Discuss the need for extra hours from mechanical engineers through the end of January (Faber, Cowley)
- 6) We have spare manpower now in electrical engineering and, soon, in software. Sandy speak to Hilton Lewis and Chris Martin about work at Keck and on KCWI. (done) Will Deich and Dave Cowley speak to Hilton and Chris Martin of KCWI.
- 7) Special meeting Nov. 19 at 10 AM to discuss KCWI-red. (Epps, Faber, Rockosi, Phillips, Cowley)
- 8) What do the labor and overhead rates mean at Keck and UCO? (Sandy)
- 9) Finalize NGAO workshares. (Gavel, Max, Cowley)
- 10) Brad Holden will negotiate SPG tasks on APF with Geoff Marcy. We will announce a first call for proposals for observing time in semester 2014B with shared risk.
- 11) Special topic for the next meeting: not decided.

2. Review of instruments and projects in the UCSC shops: ** means follow up.

Prochaska:

- K1DM3
 - Ratliffe is 50% time starting today.

- ** The start is 1.5 months late. What is effect on budget?
- ** Set a PDR date before the next PCouncil meeting (Prochaska)

-- Lockheed project

- Lockheed wants to use the Wiktorowicz polarimeter on the Shane telescope for 10 nights for \$70 k plus ~\$20 k to support Wiktorowicz's science team.
- ** Finalize this contract. Leah Martin is leading this; campus help is needed. Waiting for Dave Bennett of Lockheed to review draft. (Korossy, Prochaska)

Cowley:

- KCWI lens barrel: Lens 9 has been coated, lens 3 is being coated. Assembly starts Dec. 2. Cells are done except for #7 and one spacer.
- Assembly was to start Sept. 15; this is a 10-week delay. Extra cost for Hilyard is about \$38 k. We have a \$60 k contingency, but it is held by the project. Connie may ask for a draw.

Gavel:

-- Shane AO:

- Mountings are fabricated. It is all assembly now.
- Will not be fully done in time for observing run on Nov. 21-26. However, can test fit of frame only. Also test the laser uplink. If frame OK, do optical alignment off telescope.
- Over winter, we will convert IRCAL dewar to SHARKS dewar. Next observing run will be in April using SHARKS dewar.
- A manpower crunch for Ratliff is coming between K1DM3 (50%), Shane AO (>25%) and Drew's coating project (>25%). Drew has to have coating equipment done in January in order to make experiments and meet deadline for June proposal/report(?).
- ** Sandy and Dave will talk to engineers to negotiate enhanced 50-week hours during Dec and Jan. This should solve the problem. Motivational encouragement: attend observing runs, SPIE meeting.
- ** A new budget is needed for Shane AO (Gavel, Cowley, Ellis?, Korossy)

-- Good report: GPI worked perfectly on first night.

-- NGAO:

- There is still no agreement on the workshares at Keck, COO, and UCO. Keck wants to retain too much work.
- Don G. would like to do low-level motor control and a large chunk of systems engineering. Also the laser asterism generator. Peter W. is resisting some of this.
- ** Sandy talk to Taft and Hilton.
- Keck is charging \$75/hr, UCO is charging \$95/hr. ** Sandy, find out what these charges mean and how they are calculated.

Phillips:

- The KCWI project is asking for an estimate for the large-optics reflective coatings. Myra was doing this when she had to leave. ** Drew follow up with Leah to complete this.
- Drew will start his IRIS cost estimate.
- Ratliff's time is needed in order for Drew to stay on schedule for his June report (see above).
- ALD tests are ongoing.
- Drew is about to coat the prism for Andrew Norton's AO experiment, which diverts the laser onto a small deformable mirror, which corrects telescope aberrations and brightens the spot. Observing run is coming up.
- Goal is three papers for SPIE.
- Study for VPH grating on LRIS at Keck is overdue. ** He will complete by Nov. 30.

Deich:

- Need to establish long-term software support for APF. ** Brad will talk to Geoff Marcy.
- Software is looking for work:
 - Shane AO motor control is reduced owing to recent descope that removed the need for hooks for easy observing.
 - TMT motor-control daemon is awaiting approval by Kim Gillies
 - Removal of voluntary work for Keck and Lick means SPG is not getting as many new tasks.
- ** Will and Connie will study and bring proposals to the SSC for:
 - DEIMOS software/computer overhaul.
 - DEIMOS grating system rebuild.

Holden:

- APF:
 - Various small troubles: Shutter position encoder occasionally sends bad data; dewar thermal control was stuck at the wrong temperature and could not be changed.
 - Plan is to shut down for a week's worth of maintenance in about two weeks. Would include fixes to the above problems as well as possibly installing a new ion pump.
 - Need a long-term software plan. ** Brad will speak to Geoff.

3. New Project: KCWI-red

- Sandy agreed to let Chris Martin submit request to Caltech asking for an MRI slot. Proposal says that UCO will build the red camera. Matching funds come from already constructed common elements in blue side. No slot needed from UCSC if our share < 20%.
- Added later: SSC and CARA Board are very enthusiastic about this proposal. Strong case, likely funding.
- Epps: design is all spherical but needs retuning. David H. might be brought back part time.
- ** Agree to meet on Nov. 19 to explore this possibility.

4. Old action items (none)

5. Special topic for this meeting: none selected

New proposal ideas (edited from Aug. 13):

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

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 (from Aug. 13):

- 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