



TO: Eric Gawiser, Katelyn Allers, Rebecca Bernstein, Mark Brodwin, Elizabeth Buckley-Geer, Marla Geha, Anthony Gonzalez, Kevin Luhman, Ginny McSwain, Karen Meech, Casey Papovich, Armin Rest

FROM: Robert Blum

CC: David Silva, NOAO Executive Committee

SUBJECT: NOAO Response to Users Committee 2013 Report

DATE: September 6, 2013

Dear Eric, Katelyn, Rebecca, Mark, Elizabeth, Marla, Anthony, Karen, Kevin, Ginny, Casey, and Armin,

Thank you very much for the 2013 NOAO User's Committee report and recommendations. NOAO greatly appreciates your efforts on behalf of the Observatory and its community. There has been a tremendous amount of upheaval in the publically funded ground-based OIR astronomy arena leading up to and following the NSF/AST Portfolio Review. Plans for a transformed NOAO are now emerging following this period. NOAO relies on the Users Committee to help inform, validate, and present this transformation to the US community.

In its own way, the Users Committee is also changing. A number of long serving members are rotating off the committee and new members coming on. NOAO would like to thank Eric Gawiser, Ginny McSwain, and Rebecca Bernstein for their valuable service to the Observatory and its users over the last years. You will be missed, but you leave a strong committee in place as we move into the future. NOAO is happy to welcome new members Mark Brodwin, Elizabeth Buckley-Geer, and Karen Meech to the Users Committee. And of course, we appreciate the continuing efforts of the rest of the committee, Katelyn Allers, Marla Geha, Anthony Gonzalez, Kevin Luhman, Casey Papovich, and Armin Rest.

1. Overall Priorities

Recommendation 1.1:

While lamenting the severe budget reductions that require it, we support the vision expressed by the NOAO Directorate of transitioning by the end of this decade from an organization that emphasizes open access to PI observing time to one that places a greater emphasis on open access to OIR data for the U.S. astronomy community.

NOAO believes an emphasis on open access to data is the area most appropriate for it to contribute excellence to the US community in an era of falling operations budgets. NOAO is working with NSF to plan a transformation that does include some core instrumentation expertise and of course open access to facilities in Chile and Hawaii (Blanco, SOAR, Gemini).

Recommendation 1.2:

Recognizing that a significant reduction in open access nights will occur in the near future, the UC urges NOAO to minimize the rate of loss of open access to smooth this

transition and to make continued open access a key goal of negotiations with potential partners in telescopes from which it is considering divestment.

The mathematics is straightforward. Open access on Kitt Peak will end within several years. Open access in Chile (and Hawaii though Gemini) will remain a high priority. NOAO will also work with NSF to create opportunities for access to data from Kitt Peak as it transforms from the current model to one where large science projects dominate the telescopes (in particular the Mayall). Such access is also not free, and will depend in part on NSF or other agencies/groups funding archives, pipelines, and catalog research.

Recommendation 1.3:

The UC supports NOAO's vision of enabling and enhancing community access to LSST data as a cornerstone of its mission for the next decade.

NOAO thanks the UC for its support. Despite the challenges ahead in making a transformation, NOAO does believe there is an exciting future ahead for the US community and its national OIR center.

Recommendation 1.4:

We commend NOAO for maintaining the IRAF data reduction platform, but we recommend that NOAO explore industry standard languages for future software development.

NOAO can see the value in this recommendation. New development will require substantial resources not currently identified in the guidance NOAO has received from NSF. It may be that the LSST era will naturally lead to new development in the OIR community, however, for the time being, NOAO will continue to support the thousands of users who rely on IRAF (and with a very modest effort).

2. Community Use of the Dark Energy Camera (DECam)

Recommendation 2.1:

We recommend that NOAO maintain its current active level of engagement with DECam and the DES Data Management team.

NOAO agrees. DECam is the centerpiece of the current effort in Chile. Users are highly engaged and overfilling the available time by a significant level. NOAO continues to work closely with personnel from Fermilab to ensure technical excellence in operating DECam. NOAO has improved its capability and performance of the community pipeline and continues to maintain strong communication with the DES data management team.

Recommendation 2.2:

We recommend that NOAO work to maximize the number of nights available to the community during the B semester. Having a significant allocation in each semester

with a range of lunar phases is viewed as an important means of enabling timely access to targets at all right ascension ranges.

Providing nights to the community during September – January will be challenging. NOAO is just now (August 2013) beginning to recommission the f/8 secondary on Blanco. Until NOAO understands exactly how much effort is required to switch from prime focus to Cass focus, we cannot guarantee any particular frequency of changes during the semester. Offering the community DECam time is easier in this respect, and we will do so to the extent practicable while honoring our 105-night agreement with DES. NOAO is actually pleased to have such a challenge scheduling all those who want to use the Blanco. In the scheduling process, NOAO does ensure that lunar phases are equally distributed over the different communities (e.g. NOAO, DES, Chile, AAO)

Recommendation 2.3:

We recommend that NOAO continue to pursue remote observing capabilities with DECam. Given that there are now good observing tools in place, any effort that makes these tools effective from remote locations would benefit the community.

This is a good idea. NOAO will present a specific plan to accomplish some remote observing with DECam this year (FY14).

Recommendation 2.4:

We strongly encourage NOAO to provide good documentation as part of the DECam Community Pipeline so that users will know what processing has been applied to go from raw to reduced data.

NOAO agrees this is important. NOAO will make this a priority for FY14.

Recommendation 2.5:

We encourage NOAO to explore a mechanism for continuing to assign access to DECam in half nights when proposals justify such a request.

NOAO will schedule all highest ranked proposals, including those that request only half nights. In the case a highly ranked half-night proposal is scheduled, this may result in less than optimum scheduling during the other half of the night for a lower ranked proposal. NOAO does verify object visibility and lunar phase constraints based on the observations proposed for each scheduled proposal.

3. Modernization at KPNO and CTIO

Recommendation 3.1:

The UC recommends that NOAO continue to pursue necessary upgrades to infrastructure, particularly with essential needs such as water systems.

NOAO is happy to report that its substantial program of renovation under ARRA funding will be complete by 30 September 2013. NOAO will continue to look for resources in

conjunction with NSF to accomplish critical infrastructure upgrades and maintenance as it transforms in the following years.

Recommendation 3.2:

The UC recommends that NOAO continue to view the prompt installation of the f/8 secondary, K/COSMOS, COSMOS, and TripleSpec as high priorities for the user community.

NOAO is proceeding at high priority to recommission the Blanco f/8, complete the integration of K/COSMOS and help Cornell stay on track with Triplespec4 (TS4). The f/8 has been tested on the Blanco, during the first round of on-sky engineering in August 2013. Commissioning of the f/8 will continue during October 2013. The K/COSMOS optical elements are being integrated as of this writing for an October first light on the Mayall, and TS4 is proceeding at Cornell with NOAO delivering the detector systems in FY14.

Recommendation 3.3:

The UC recommends that NOAO expand remote observing capabilities for experienced WIYN, KPNO 4m, and CTIO 4m observers within the limits that resources and labor allow.

NOAO is offering remote observing at the SOAR, WIYN, and Mayall telescopes. There are no impediments beyond an initial run with any given instrument/telescope combination. As stated above, we will develop a plan for remote observing with the Blanco later this year.

4. DESI on the Mayall

Recommendation 4.1

The UC recommends that NOAO explore with NSF how such PI access and community fibers might be incorporated into the DESI MOU between DOE/NSF.

NOAO will work with NSF/AST in early FY14 to negotiate an MOU between NSF and DOE that will set the roles and responsibilities for all sides in the DESI experiment on the Mayall. NOAO will seek to best represent the community interest for access to DESI time and data. This includes the use of DESI after the DOE funded dark energy survey is complete (nominally a five year program).

Recommendation 4.2

The UC recommends that NOAO explore how to encourage and facilitate community proposals for non---dark energy science with DESI.

Any community science with DESI will be contingent on a funding source. Present guidance from NSF does not explicitly include funding for community observing support through NOAO (not night time support, targeting/observation planning, or data reduction). NOAO will work with NSF and DOE to gain some access to the larger com-

community during the DESI dark energy survey. This might include bright nights, access to the instrument through the DESI collaboration itself, or may be primarily through serving data.

5. Gemini

Recommendation 5.1:

The UC recommends that the upgrades to the GMOS--S arrays proceed rapidly given the high demand for GMOS and the significant improvement the upgrade would provide to sensitivity.

This remains the highest priority for NOAO. NOAO is encouraging US GSTAC members to make the same priority to Gemini.

Recommendation 5.2:

The UC urges NOAO to advocate that GeMS be made available frequently enough to satisfy the expected demand for it.

GeMS is limited in use by the need to schedule extra staff to be present on the mountain. Within this constraint, NOAO believes Gemini is maximizing the opportunity for GeMS science by the US community. Of course, in the end, demand will dictate the appropriate use of GeMS within operational constraints.

Recommendation 5.3:

The UC recommends that NOAO maintain the current level of time trades, with the option to adjust the amount of time trades based on user demand.

NOAO agrees. The NSSC watches demand carefully and advocates as needed to maintain the right balance.

Recommendation 5.4:

For future Gemini instrumentation, the UC recommends that priority be given to instruments that support imaging surveys by other facilities, such as LSST.

NOAO welcomes this recommendation and strongly agrees.

Recommendation 5.5:

The UC strongly encourages NOAO to produce data reduction cookbooks for the Gemini user community since it is likely to have a significant impact on the productivity of users.

NOAO agrees with this and is working with Gemini to make it happen in FY14 and beyond.

Recommendation 5.6:

The UC recommends that NOAO work with Gemini to maintain the high quality of Phase II support as the support role transitions to Gemini.

In a constrained budget environment, NOAO will prioritize effort under 5.5 and work with Gemini to off load phase II support to the observatory. NOAO is committed to helping Gemini maintain the highest level of phase II support.