

**Notes from
Dark Energy Survey (DES) DECam Project
Working Group Meeting (WGM)
Friday, April 06, 2007
10:00 – 12:00 Noon in the Snake Pit**

Attending: Ed Temple, Wyatt Merritt, Byron Clark, Paul Philp, Jim Annis, Jeff Appel, Douglas Tucker, John Peoples, Brenna Flaughner, Dean Hoffer, Chris Smith (by phone), Joe Mohr (by phone), Cristina Beldica (by phone)

- 1) HQ Interactions: Feedback on Discussions with Headquarters [Kathy Turner/Paul Philp/Hugh Montgomery/John Peoples/Brenna Flaughner]

Paul reports that the DECam PPEP and Acquisition Strategy were submitted to Steve Tkaczyk awhile back, and that, to his knowledge, these documents are up to date except for updating of the cost, funding, and schedule information

John reports that he has received a record of agreement, the review charge, and the expectations for the review, and that these documents have been posted on the DES docdb website (DES-doc's 433-v1, 432-v1, 434-v1, respectively).

- a) DOE/NSF CD-1 Review Preparations (Agenda and Review Committee) [Kathy Turner/John Peoples]

John and Kathy have been iterating on the May 1-3 review agenda. The current version is "JP revision 5 of KT's 2 March version" and is available on the OPMO website for today's DES WGM at this URL:

http://www.fnal.gov/directorate/OPMO/Projects/DES/WGM/2007/04_06/base.htm.

This document does not go into the details of the breakout sessions (see Item 2b below).

As described in the Record of Agreement (DES-doc#433-v1), the total review will be 4 days long, the first stage (April 30) being an NSF-style panel review "to evaluate the intellectual merit and broader impacts of the DES project". (It is possible that other projects may also be under review on April 30.) Stage 2 (May 1-3) will be "a full review, including but not limited to the requirements for a DOE Critical Decision 1 (CD-1) Approval of Alternative Selection and Cost Range." The discussion of broader impacts and community needs will be part of the April 30 panel review, and will not play an important part of the second stage (May 1-3), unless specifically requested by the Chair of the May 1-3 review.

In the agenda for the May 1-3 review, the plenary sessions are composed of 30-min general talks that will point to the relevant breakout sessions for detailed discussion of topics. It is expected that perhaps only half of the 10-14 reviewers will have expertise in astronomy; the others will mostly be experts in management and project construction.

2) Status on preparations (documents and presentations) for DOE/NSF CD-1 Review

a) Overall DES Project

- CDR (affects DES DM and CTIO primarily, because we will use the materials in the proposal)
- Agreement on pPEPs
- Unified Schedule

Documents still needed are the DM pPEP, the CTIO pPEP, and the unified DES CDR. The unified costs and schedule need to be updated for the unified DES CDR. Essentially all other documents are ready. The DM and CTIO pPEPs are due the week of April 23; the unified CDR needs to be ready a week before that.

Cristina noted that explicit mention of risk management appears to be missing from the list of talks. It is necessary to show that we are aware of risks. Brenna's plenary talk will note that previous reviews have discussed that the optics and CCDs are a main focus of risk; it will show how we have been managing this risk in both her plenary talk and in the breakout sessions. Comment on risk management should be incorporated in all the plenary talks at a high level. Where appropriate, it should be included in the breakout streams.

b) DECam [Brenna Flaugher]

See Brenna's slides on the OPMO webpage for today's meeting at:

http://www.fnal.gov/directorate/OPMO/Projects/DES/WGM/2007/04_06/PMG-APR607.pdf.

Brenna discussed the following:

- ***DECam Funding Need Profile (Dec 06).*** *A technically driven schedule (i.e., one in which the funding schedule is not an issue) yields an earliest date of delivery of DECam to CTIO in April 2010 (with no explicit contingency). That the DECam project may get less funding in FY08 and FY09 than initially hoped for would likely delay delivery. The DECam Funding Need Profile is found in several documents, including the Acquisition Strategy and the DECam PEP.*
- ***Strawman Installation and Commissioning Schedule.*** *Community and/or DES observations could begin as little as 4 months after installation of the DECam at CTIO begins.*
- ***Funding Profiles and Dates.*** *Under the current ideas for the funding schedule, realistic dates for delivering DECam to CTIO (with no contingency) lay in the July – Dec 2010 timeframe. As the delivery date gets later, additional costs are incurred.*
- ***Schedule of DECam Breakout Session Presentations.*** *(The following includes some changes to reflect the April 9 version of the May 1-3 Agenda.)*

- *DECam, CFIP, and Integration Session #1: phasing of the DECam subprojects, DECam cost & schedule, technical details of the subprojects, and current status of R&D.*
- *DECam, CFIP, and Integration Session #2a: technical details of the CCDs, focal plane, camera; current status of R&D for the camera, front end electronics; and details of Level 2 cost & schedule for these items.*
- *DECam, CFIP, and Integration Session #2b: technical details of the optics, mechanical systems, & external cryogenic systems for DECam; and details of Level 2 cost & schedule for these times.*
- *DECam, CFIP, and Integration Session #3: technical details of the CFIP and integration, testing, and commissioning; and Level 2 cost & schedule for these items. There was a suggestion that discussion of the community needs document could be shifted from this breakout session (“DECam, CFIP, & Integration Session #3”) into the Science Program breakout, because the science requirements document will be presented there (and the two documents are related). An alternate suggestion was that Tim’s plenary should mention the changes to DECam that arose from the community needs document and that more technical aspects of community needs that directly affect DECam could be included in this breakout session. John plans to present the two deliverables for telescope time in his plenary talk. In addition, he plans to mention the community needs document and the existence of the community needs working group in his plenary talk. He has asked that any community need that increased the cost of CFIP, DECam, or DES DM should be described in the appropriate breakout session. It was noted that there will be a specific plenary for CFIP & Integration at CTIO given by Tim Abbott, as well as a specific breakout session dedicated to CFIP & Integration at CTIO (“DECam, CFIP, & Integration Session #3”). It was suggested that perhaps Tim could arrange for a few people to be on hand (probably by video) for optional talks discussing the CFIP during this breakout session. It was noted that different reviewers who will participate in this breakout session and in the Science Program breakout session are likely to ask about the telescope performance. Tim will probably have to be prepared to answer these questions in these two different breakout sessions. Since these two breakout sessions are currently scheduled to occur on different days, this should be possible.*
- *FTE Schedule File for Oct 2006 – Feb 2007. This slide could be shown at the review as a good demonstration that we know how to manage our resources well.*
- *A Comparison of Actual and Scheduled Labor for Oct 2006 – Feb 2007. This slide could also be shown at the review.*

c) DM [Joe Mohr/Cristina Beldica]

Action Item [Joe]: Prepare schedule of talks for DM breakout sessions, obtaining guidance from John.

d) CTIO [Alistair Walker]

An issue was raised whether the telescope performance needs to be presented in both the Science Program breakout and the CFIP & Integration at CTIO breakout.

It was decided that Tim should be prepared to discuss the Blanco's performance in both of these breakout sessions. He should prepare 4-5 slides, in order to stem any concerns about the Blanco's previous performance, especially with regards to weak lensing.

Action Item [Chris Smith]: Prepare list of steps necessary for integrating SISPI at CTIO. Discuss with Brenna and Jon during the week of April 16-20 to make an outline schedule for integrating SISPI at CTIO.

e) Website for posting of documents and presentations [John Peoples]

Documents and presentations will be posted to the docdb. Call-in numbers and other details (e.g., how to connect a laptop at Fermilab) will be linked to the OPMO review page.

3) Scheduling of Dry Run presentations for DOE/NSF CD-1 Review [John Peoples]

There were no objections to the list of potential dry run reviewers listed on p. 3 of the OPMO Slides for today's meeting at

http://www.fnal.gov/directorate/OPMO/Projects/DES/WGM/2007/04_06/OPMO_Slides_for_DES_WGM_06-Apr-07.pdf.

John requests that the DES scientists and DECam Level 2 managers be invited to the dry runs on a "come if you can" basis.

The dates of the dry run presentations are contingent upon the availability of Mont and the various speakers.

Provisional dates for the dry runs of the plenary session talks: April 18 & 19, with the exception of Joe's talk. Joe's talk will be on April 16, if Mont is available on April 16; otherwise, it will be on April 23.

Provisional dates for the dry runs of the breakout session talks: April 25 & 27.

Action Item [all plenary speakers]: Have a version of your PowerPoint slides for the practice talks posted to docdb by the morning of April 16.

The final version of the talks should be posted to the docdb by the morning of April 30.

4) Status on logistics support for the review [Dean Hoffer]

Dean and Terry are taking care of all the logistical support.

From p. 5 of the OPMO Slides for today's meeting at

http://www.fnal.gov/directorate/OPMO/Projects/DES/WGM/2007/04_06/OPMO_Slides_for_DES_WGM_06-Apr-07.pdf:

- *NSF Panel Meeting –April 30*
 - *Meeting Room Reserved*
 - *Breaks and Lunch?*
- *Review –May 1-3*
 - *Meeting Rooms*
 - *Breaks and Lunches*
 - *Tuesday Night Dinner*
 - *Video Conference Call-in #s*

5) Review Timeline [Dean Hoffer]

The SC1/AE approval of the Acquisition Strategy has been moved to May 2007 in the time line. See p. 6 of OPMO Slides for today's meeting at

http://www.fnal.gov/directorate/OPMO/Projects/DES/WGM/2007/04_06/OPMO_Slides_for_DES_WGM_06-Apr-07.pdf.

6) Next Meeting [Dean Hoffer]

Provisional Date: April 20.

7) Status of Action Items [Brenna/Wyatt]

Rollover Item from Prior Meetings:

- a) Contact the agencies regarding the charge and expectations for the review. [Mont]

Done.