

JP Report to the DES-WG meeting of 22 Jun 07 on JOG actions of May 21, June 1, and June 21

Report of the DOE CD-1 Review Committee [John Peoples - item 1-b of the Agenda]

The report was transmitted to J. Peoples, B. Flaughner and H. Montgomery on June 20. Message from KT to JP on June 21 summarizes the status of the report.

Hi John,

Here's how it works: Dan Lehman was charged by Wayne Van Citters and Robin Staffin to do the review. Dan has transmitted the report to Wayne and Robin.

Robin will now transmit the report to FNAL (and I'm assuming Wayne will transmit to whoever in NSF needs the report). Robin's transmitting it to FNAL doesn't have anything to do with the NSF saying they'll go forward. I'm sending you the report now just because it'll take a few weeks before all the signatures get put in place here and Robin signs and it gets sent to FNAL.

When we find out from NSF that they plan to go forward, Robin will then be in a position to approve CD-1 (assuming all other paperwork is in order).

** Yes, you can make it public, with the caveat that it has not been officially transmitted **

Kathy

HQ Interactions: Feedback on Discussions with Headquarters [Items 1-a and c of the Agenda combined]

- a) **Follow-up from the DOE/NSF CD-1 Review [John Peoples]**
- b) **JOG Discussions [John Peoples]**

Summary of JOG discussions, actions and follow up with the agencies:

JOG telecons were held on May 21, June 1, and June 21. Participants were Kathy Turner, Nigel Sharp and John Peoples. Mike Procaro participated on May 21 and June 1.

May 21 JOG:

1. Summary of Major Issues from the May 21 JOG:

- o Further pursuit of CD-1 was placed on hold by Robin Staffin until Wayne Van Citters states in writing that NSF is prepared to go forward with DES.
- o NSF (Sharp) has serious reservations about the DES DM project because of the lack of technical requirements for the outputs of the basic image processing software (as used in the post image processing scientific software); the absence of input requirements for the post image processing scientific software for clusters, weak lensing, etc; the unknown scope of the basic image processing software, which was said to be based on SExtractor/Scamp/Swarp suite of image processing

code; the poorly defined state of software for the on-mountain and off-mountain software for variable object detection (SNIa searches etc); and the limited scope of the Community Pipeline. In addition there were concerns whether the DES DM WBS structure would be a useful tool for managing the DES DM project

- NSF was not prepared to fund the DES DM in its present scope of a \$2.4 million project with a 40 month duration (July 1, 2007 to October 1, 2010-first light)
- The lack of an MOU among DES, FNAL, NCSA and NOAO to define the arrangements among these parties to operate DECam, including Community use); to support the Community Pipeline; and carry out the Dark Energy Survey, including release the raw data and the data products to the public.
- A concern that CTIO was not fully prepared to accept the burden of the CFIP project.

2. Outcome of the May 21 JOG

- The participants agreed to have a teleconference on June 1 to tackle the issues that are preventing NSF from signing off of DES DM and CTIO Facilities Support projects, which they are expected to fund.
- JP and Nigel Sharp agreed to informally explore these issues before the June 1 JOG telecon.

June 1 JOG:

The critical obstacles that were preventing NSF from signing off on DES DM and CFIP were identified. Action items were identified and assigned to the active participants. These are summarized in a June 1 mail message to the JOG

Hi – I'm summarizing the Action Items from the DES JOG call today (please let me know if there's anything wrong).

- John Peoples (JP) will work on the FNAL-NOAO-NCSA MoU changes and will send a draft to DOE and NSF.
- JP will determine the funding amounts to keep the Data Management (DM) system going for the rest of '07 and for '08.
- Nigel Sharp (NS) will talk with people at NSF and CTIO to determine if CTIO is committed to project and to discuss what needs to be in the MoU.
- JP will poll people to see whether an Aug. 9 or 10th meeting at NSF with JOG, JP and lab directors is possible - to discuss status of MoU, data management and project.
- NS will get Wayne to send an email to Robin saying that NSF plans to go forward. Wayne would probably want to understand the funding plans and the MoU (and maybe have it almost final or signed?) before sending this.

- When Robin gets the above email from Wayne, DOE will probably then feel comfortable in approving CD1 for the DECAM.

Kathy

June 21 JOG: Status of JOG action items from the 1 June JOG on June 21 (includes action from the 21 June JOG)

An early version of this was sent to K Turner and Nigel Sharp on June 21 for the June 21 JOG

1. JP will work on the FNAL-NOAO-NCSA MOU changes and will send a draft to DOE and NSF.

JP has reread the MOU and identified where changes need to be made in order to make the MOU consistent with the current plans of NOAO DPP and DES DM. However, Nigel did not want the MOU to be revised until after he has a teleconference with Alistair Walker, Tim Abbott, Chris Smith, Thom Barnes, and Craig Foltz in order to discuss whether the commitment of Fermilab and the rest of DES were there to support DECAM and whether there was general agreement on the deliverables to NOAO. These are (1) the complete DECAM and its supporting documents and (2) the Community Pipeline and its supporting documentation. This was the third item in Kathy Turner's list of June 1 action items:

The telecon was held on June 8 and Nigel told JP that it went well. He said that CTIO wants DECAM as a community instrument; it is prepared to support the operation of DECAM as a facility instrument for DES and DECAM. Presumably this includes carrying out the CFIP project (telescope upgrades, clean room, and installation of DECAM...).

JP also delayed starting work on the FNAL-NOAO-NCSA MOU because Todd Boroson and Chris Smith want to work out a policy (or guidelines) for community instruments, such as DECAM, before revising the MOU. Chris Smith developed text for such a policy last week and shared it with JP before he presented it to the Committee of Directors (Directors and Associate Directors of the 7 programs of NOAO). He presented their guidelines to the Directors during the week of June 11 and received feedback.

Chris Smith noted that the committee of Directors and Associate Directors of NOAO Observatory directors didn't get a lot of time in an hour long meeting to discuss the matter. Nevertheless, the directors wanted the text to be called guidelines not policies. They thought policies could limit the flexibility of the Director of NOAO. The guidelines will address facility instruments, including the related data management system and improvements that NOAO would have to provide. When a facility instrument is used for a survey it will follow NOAO policy on surveys (12 months for releasing raw data to the public). If it will be used in multiple small PI driven projects, the raw data would be

released after the standard 18-month policy. Chris noted that there was general support at the meeting for delivery of DECam as a facility instrument.

JP noted that it was OK for these policies to be guidelines, but they can't be so flexible that the commitment to DES is watered down and DES has an open ended commitment to unknown surveys. Concern was also expressed that a request for the use of a facility instrument by a member of the general astronomical community might require that NOAO and DES make changes to the instrument itself or to the pipeline software. Chris responded that these guidelines are for delivery of an instrument, not for on-going work; in other words, NOAO has never entertained the option that someone can submit an observing proposal for a facility instrument and then require that NOAO makes changes to the instrument or to the pipelines. Chris Smith also noted that the Directors view the guidelines as a high-level document upon which specific policies will be derived.

The NOAO guidelines will help to determine the framework for DES DM in the MOU. The Community Needs working group was formed and the basic deliverables (DECam and the Community Pipeline) were defined after the MOU was last revised on August 31, 2006. The guidelines and the Community Needs working group provide a process for introducing requirements on DECam and the Community Pipeline that will assure that DECam and the Community Pipeline can be operated by NOAO/CTIO & NOAO/DPP and that the community users can use the DECam system efficiently for the observations that NOAO approves. The guidelines are needed to establish the framework in which DES will live. This process should be incorporated in the MOU.

JP believes that there is now a clear path to preparing a revised MOU. His plan is to begin to revise the MOU with help from Alistair Walker and Chris Smith in about ten days (June 29). The major changes that need to be made to the MOU are:

- Describe the deliverables at a high level (the definition exists and is in THE DES proposal to the NSF).
- Describe briefly community-provided instrument guidelines.
- Describe the Community Needs working group.
- Describe the process that will be used to integrate the Community Pipeline into the NOAO E2E system.
- Describe the DES use of the Data Transport System subsystem of E2E to move the data from DECam to NCSA.

Once these changes have been made, JP will circulate the draft MOU to Brenna, Tim Abbott, Joe Mohr, Josh and Ofer for their comments. JP's target is to send it to them just after July 4. After they have recommended changes and the changes are made the document will be sent to Boroson, Dunning, and Montgomery for their consideration. JP's goal is to reach this state by mid to late July. JP sent Brenna v4.3.1 on June 21 to give her a head start.

2. JP will determine the funding amounts to keep Data Management going for the rest of '07 and for '08.

Joe Mohr (JM) and JP have submitted preliminary versions to Nigel for discussion. Nigel has requested some changes and JM and JP are now submitting the revised budgets to NSF through Fastlane. One budget will be submitted through UIUC for DES DM and the other budget will be submitted through FRA for travel to collaboration meetings and outreach. Both revised budgets will be for the 15 month period between July 1, 2007 and September 30, 2008. If the revised budgets are approved by Wayne Van Citters they will provide DES DM with sufficient funds for the 15-month period starting July 1, 2007 to support for NCSA staff and the UIUC-AST group working on DES DM, including their work on the basic imaging software. DES will be required to submit a new DES DM proposal in order to be considered for funds after October 1, 2008. The new proposal need not be anywhere near as long as the original joint NSF/DOE proposal (which was c. 300 pages long). It will likely consist of a TDR for all phases of the DES project plus a straightforward DM proposal for NSF. DES would like to submit it at the time of the joint DOE-NSF CD-2 review. BF asked. When could the CD-2 review rehearsal and the Joint NSF-DOE CD-2 Review be scheduled? JP said that the Directors Review should be in mid-November so that the joint NSF-DOE CD-2 Review could be in December or January. BF said that we should request CD-3a as well.

3. Nigel Sharp will talk with people at NSF and CTIO to determine if CTIO is committed to the DES project and to discuss what needs to be in the MOU.

Nigel arranged the telecon.

4. JP will poll people to see whether August 9 or 10 meeting at NSF with JOG, JP and lab directors is possible to discuss the status of the MOU, data management and the project.

The best date is the morning of August 10 because Boroson, Dunning and Montgomery can participate. This date and time work for Kathy and Nigel. John Peoples, Chris Smith, Joe Mohr, and Josh Frieman are planning on participating. It will be possible to get Eileen Friel to participate and Thom Barnes might be able to participate by remote hookup. JP would like Craig Foltz to participate. JP wants to limit the agenda to the MOU (including CFIP and DES DM), the strategy to implement DES DM at NCSA/UIUC, the work accomplished to date by NCSA-UIUC and a partial response to the (CTIO and DPP) DES DM sections of the CD-1 report. The DES presentation could also include a presentation of the technical specifications for the DES DM system that the science software, which the [science] working groups will develop, will improve on the DES DM requirements.

5. Nigel Sharp will get Wayne to send an email to Robin saying the NSF plans to go forward.

At the June 21 JOG Nigel stated that Wayne would be ready to go forward with DES as soon as the reduced budget and reduced duration for DES DM was approved. Nigel said there were no obstacles in the way of approving the budget and duration; just paper work.

Nigel said that he had the money in his budget. While the final approval of the revised FRA-UIUC DES proposal by NSF Contract and Grants is not likely to occur until August. The grantee can charge expenses that occur 90 days before the formal award.

6. When Robin gets the above e-mail from Wayne, DOE will probably then feel comfortable in approving CD-1 for the DECam

JP will ask Kathy and Nigel whether this is on track at the June 21 JOG. Kathy said that when this happened Robin would feel comfortable in pursuing the approval of CD-1.

Actions from the June 21 JOG:

Here's a summary [from Kathy Turner] of the JOG telecon yesterday plus some other notes. Kathy, Nigel and John were on the phone.

The official report from the May 2007 joint DOE/NSF review has been released.

JP reported on work towards filling positions recommended by the review.

The agencies plan for all future reviews to be joint and to cover the full DES.

We will meet August 10, 2007 in the morning at NSF in Arlington, VA to review the status of DES and response to concerns brought up in the May 2007 review.

JP expects to have a draft 3-lab MoU to send the agencies by the end of July and to have a final version ready for signatures at the Aug. 10th meeting.

NS reported that NSF has received the revised budget for 15 months for the Data Management System and they are considering it.

KT reported that DOE (Robin) will be ready to pursue CD-1 approval for the DECam when a letter is sent from Wayne to Robin saying that NSF plans to move forward.

Paperwork for DOE's CD-1 approval of DECam -- It would be good if the project would work with Paul Philp from the Fermilab Site Office to make sure all the CD-1 paperwork is in order - pre-PEP, Hazard Analysis, Acquisition Strategy (AS), etc. Robin will be the approving official for CD-1. However, the AS will need to go thru Lehman's office and then up to Ray Orbach's office for approval ahead of time. We won't set a date for the CD-1 approval until the AS goes thru this. I am on vacation from July 18 - 27. Therefore it would be good if you could review the AS paperwork in detail and then send to me before this by at least a week. The pre-PEP and other documentation can come in a bit later (but the earlier the better of course).

- The JOG will teleconference on July 11 at 11 AM EDT.
- Kathy will prepare an agenda for the July 11 telecon.
- Kathy asked JP to make sure that Paul Philp's CD-1 Documentation (cost and schedule ranges, PEP, etc.) was in order (JP spoke to Brenna about this)
- JP will send the JOG and the three directors (Mont,..) whatever he has done on the big MOU as of July 10.