



DARK ENERGY  
Survey



Fermilab

# Dark Energy Survey (DES) DECam Project Working Group Meeting

November 16, 2007

9:30 – 11:30 AM

Snake Pit

# Agenda

- 1) HQ Interactions: Feedback on Discussions with Headquarters [Kathy Turner /Hugh Montgomery/John Peoples/Brenna Flaughner]
- 2) DES/DECam Status Update [15 m; Brenna Flaughner]
- 3) Response to Recommendations from Director's Preliminary Review of DECam Oct. 30-31, 2007:
  - a) WBS 1.2 [Tom Diehl]
  - b) WBS 1.3 [Terri Shaw]
  - c) WBS 1.5 [Andy Stefanik]
  - d) WBS 1.1 and overall cost and schedule [Brenna Flaughner]
  - e) Responses on Documentation and preparation: [Wyatt Merritt]
- 4) Discussion on pending reviews [Dean Hoffer / All]
  - a) Discussion on Directors' CD-2/3a Review of DES on Dec. 11-13, 2007.
  - b) Discussion on scheduling Director's/DOE FSO's Performance Management System Review (EVMS) Dec. 18-19, 2007.
  - c) Discussion on DOE/NSF CD-2/3a Review of DES on Jan. 29-31, 2008.
- 5) Review Timeline [Dean Hoffer]
- 6) Next Meeting: Dec. 7 [Dean Hoffer]

# Actions for Directors' Review

- Confirm Reviewers
- Review and comment on draft agenda
- Review and comment on draft charge
- Confirm video/audio needs for meeting rooms

# Confirmed Reviewers for Directors' Review of DES

- Alan Uomoto
- Bill Boroski
- Dean Hoffer
- Ed Temple
- Elaine McCluskey
- Hogan Nguyen
- Jeff Kantor
- Marc Kaducak
- Marcel DeMarteau
- Mike Lindgren
- Pat Lukens
- Peter Stetson
- Peter Wilson
- Rich Kron
- Ron Probst
- Roc Cutri

# Reviewers for Directors' Review of DES

## **Not Responded**

- Bob Hanisch
- John Tonry
- Nick Kaiser
- Nicole Radziwill
- Tom Peterson

## • **Not Available**

- Debbie Harris
- Joe Howell
- Dan Fabricant
- Eric Gawisser
- Howard Yee
- Paul Schechter

# Draft Agenda for Directors' Review

Tuesday, December 11					
Start	End	Time	Subject	Presenter	
8:00 AM	9:00 AM	1:00	Executive Session (Comitium, WH2SE)	Ed Temple	
9:00 AM	9:15 AM	0:15	Welcome and Laboratory Overview (One West - WH1W)	Hugh Montgomery	
9:15 AM	9:55 AM	0:40	DES Overview - Science Intro, DES organization, MOU Structure	John Peoples	
9:55 AM	10:30 AM	0:35	DECam Overview Including Integration at CTIO	Brenna Flaughter	
10:30 AM	10:45 AM	0:15	<b>BREAK</b>		
10:45 AM	11:15 AM	0:30	DES-DM overview and requirements	Joe Mohr	
11:15 AM	11:45 AM	0:30	Responsibilities of NOAO	Alistair Walker	
11:45 AM	12:15 PM	0:30	DECam technical requirements and comparison of DECam/DES to other projects	Darren DePay	
12:15 PM	1:15 PM	1:00	<b>LUNCH</b>		
<b>Parallel Plenary Sessions:</b>					
1:15 PM	2:45 PM	1:30	<b>DECam Plenary Session</b>		
			CCDs	?	
			FEE	?	
			SISPI	?	
			Opto-Mech	?	
1:15 PM	2:45 PM	1:30	<b>DES Data Management System Plenary System</b>		
		0:20	Archive	Dora Cai	
		0:20	Pipeline Processing Framework	Greg Daues	
		0:20	Astronomy Processing	Joe Mohr	
		0:20	Photometric Calibration	Douglas Tucker	
		0:10	Community Pipeline	?	
2:45 PM	3:00 PM	0:15	<b>BREAK</b>		

# Draft Agenda for Directors' Review

(continued)

3:00 PM	4:30 PM	1:30	<b>Breakout Sessions</b> <b>DECam Breakout Sessions</b> 1) CCDs 2) FEE & SISPI 3) Opto-Mech & Optics <b>Data Management Breakout Sessions</b> 4) DM system requirements, testing and validation, status of development 5) Community Pipeline - network infrastructure; the E2E environment; Chris Smith testing and verifying; operation of the integrated system
4:30 PM	6:00 PM	1:30	Executive Session

# Draft Agenda for Directors' Review

(continued)

Wednesday, December 12			
			<b>Breakout Sessions</b> (BREAK from 10:00 - 10:15 AM outside of Comitium)
8:00 AM	12:00 PM	4:00	<b>DECam Breakout Sessions</b>
			1) CCDs (Continuation from prior day) ?
			2) FEE & SISPI (Continuation from prior day) ?
			3) Opto-Mech & Optics (Continuation from prior day) ?
			6) DECam Cost, Schedule and Management (8:00 - 11:00 AM) *Brenna Flaughner
8:00 AM	12:00 PM	4:00	<b>Data Management Breakout Sessions</b>
			7) Archive, Processing Framework and Astronomy Modules (8:00 - 11:00 AM) *Joe Mohr
			8) Data Management - Cost, Schedule and Management (11:00 - 12:00 noon) *Joe Mohr
11:00 AM	12:00 PM	1:00	<b>CFIP Breakout Sessions</b>
			9) CFIP technical details, cost and schedule of the telescope control system *Tim Abbott
12:00 PM	1:00 PM	1:00	<b>LUNCH</b>

# Draft Agenda for Directors' Review

(continued)

1:00 PM	3:00 PM	2:00	DES Management Session (DECam and DES DM Project Management, NOAO Management and the three Directors) <ul style="list-style-type: none"> <li>- Discussion of the DES-FNAL-NCSA-NOAO MOU</li> <li>- Installation, Commissioning and Operations arrangements</li> <li>- DES Participating Institution MOUs</li> <li>- Community Use of DECam and the Community Pipeline</li> <li>- Answer questions from the Committee from the day before</li> </ul>
3:00 PM	3:15 PM	0:15	<b>BREAK</b>
3:15 PM	5:15 PM	2:00	Executive Session
<b>Thursday, December 13</b>			
8:00 AM	10:00 AM	2:00	Subcommittee Working sessions and Report Writing (Comitium, WH2SE)
10:00 AM	10:15 AM	0:15	<b>BREAK</b>
10:15 AM	2:00 PM	3:45	Closeout Dry Run with working lunch (Comitium, WH2SE) Breaks taken as necessary.
2:00 PM	3:00 PM	1:00	Closeout

\* Notes Breakout Session Lead

# Draft Charge for Director's/DOE FSO's EVMS Review

This charge is for the Committee to conduct the Fermilab Director's/Department of Energy Fermi Site Office's Earned Value Management System Review of the proposed DECam project at Fermilab. This review is to ensure that the DECam Project will employ an Earned Value Management System that meets the objectives of ANSI/EIA-748-A-1998 32 Guidelines in accordance with DOE O 413.3A and DOE M 413.3-1. This review is to ensure that policies, procedures, systems and practices for controlling and reporting of project performance is in place no later than CD-2.

The Dark Energy Survey (DES) Collaboration proposes to build a new 519 megapixel CCD camera (DECam) to be mounted at the prime focus of the Blanco 4m telescope at CTIO. The DECam Project is hosted by Fermi National Accelerator Laboratory (Fermilab) and is the project which will construct the camera. The DECam Project includes a large mosaic camera, a five element optical corrector, a multi-band filter system, and the associated infrastructure for operation in the prime focus cage. The focal plane consists of 62 2048 x 4096 CCD modules (0.27arcsecond/pixel) arranged in a hexagon inscribed within the 2.2 deg. diameter field of view. The project plans to use the thick fully-depleted CCDs that have been developed at the Lawrence Berkeley National Laboratory (LBNL) in order to obtain the best available quantum efficiency at near-infrared wavelengths.

The Dark Energy Survey project received Critical Decision CD-1 "Approved Alternative Selection & Cost Range" on October 15, 2007. A Fermilab Director's CD-2/3a Review, co-chaired by Ed Temple and Rich Kron, is scheduled for December 11-13, 2007 and the DOE/NSF Review is scheduled for January 29-31, 2008.

# Draft Charge for Director's/DOE FSO's

## EVMS Review (continued)

The focus of this review is to assess whether DECam is compliant with the performance management system standard as defined in DOE M 413.3-1. This review is to self-certify DECam's Earned Value Management System, which should be aligned with the Lab Wide Certified System that is in the process of being documented. The committee is to specifically address the following items during this review:

1. Is the system effectively documented?
2. Will the system produce timely and accurate reports in a readable and meaningful format?
3. Will the system satisfy Fermilab's and DOE's information needs?
4. Are the relevant personnel adequately knowledgeable about operation of the system and do they make use of the information?
5. Has the DECam Project addressed how Earned Value will be handled for the work covered under the Cooperative Agreement (CA) and will it give project management the information needed to monitor progress?
6. Does the DECam Project meet the objectives of the ANSI/EIA-748-A-1998 EVMS Guidelines under the:
  - a. Organization category?
  - b. Planning, Scheduling and Budgeting category?
  - c. Accounting Considerations category?
  - d. Analysis and Management Reports category?
  - e. Revisions and Data Maintenance category?
7. Does the proposed performance management system meet current DOE Earned Value Management System (EVMS) assessment and reporting requirements?

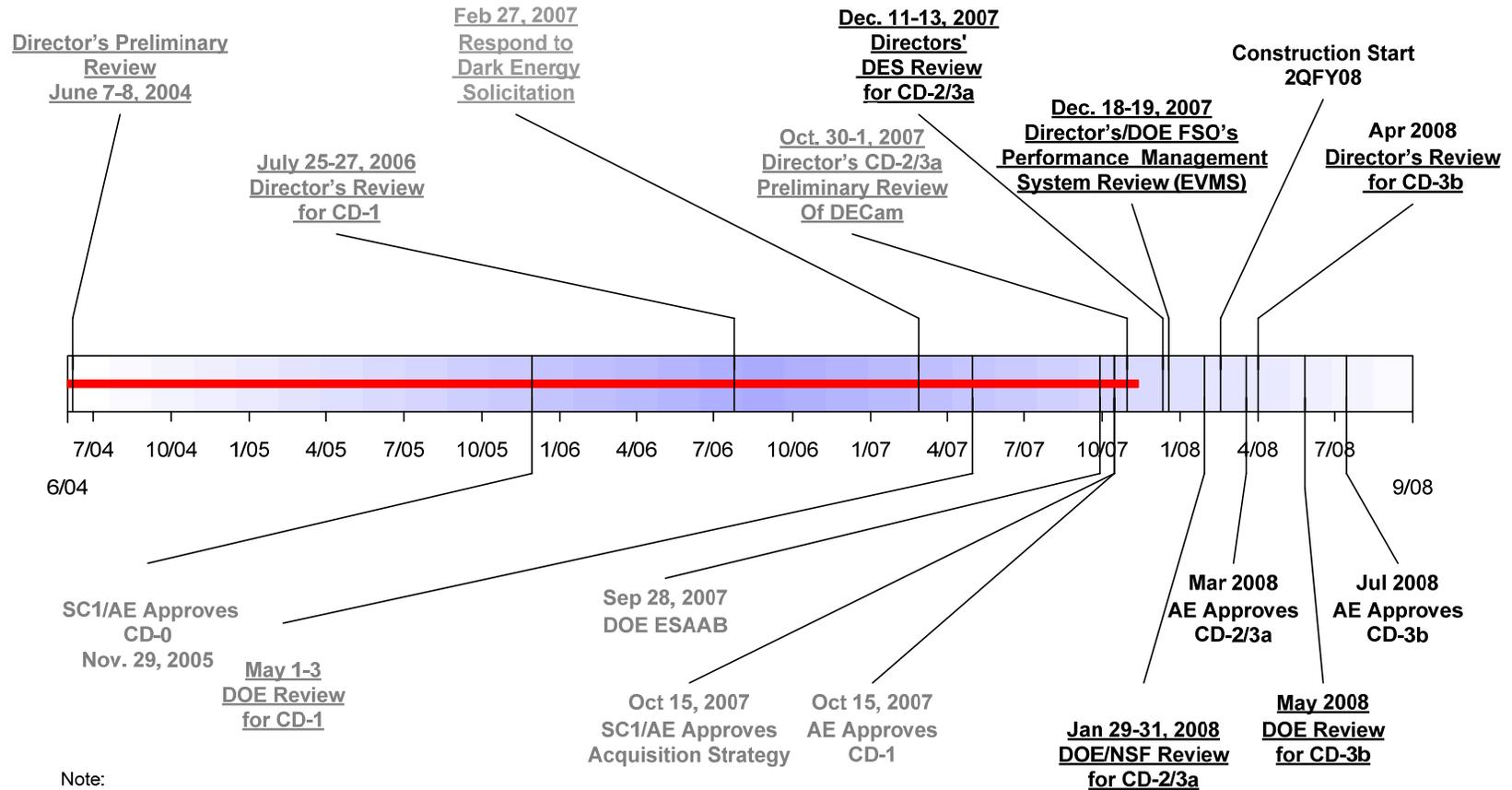
Finally, the committee should present findings, comments, and recommendations at a closeout meeting with DECam's and Fermilab's management and provide a written report soon after the review.



# Dark Energy Survey - DECam Project Draft Timeline for Critical Decisions & Reviews



Updated 12-Nov-07



Note:

- Text in Red indicates change from prior version
- Text in Gray indicates activity is complete

# Action Items

## New

None

## Rollover

- 1) DECam to look at need for a percent of an Admin Support FTE for ongoing project support and work with PPD Management. [Brenna Flaughner, Jim Strait/Greg Bock]
- 2) Continue consulting with Kathy and Nigel to identify all documents that will be needed from the non-DECam components of DES (i.e., DES DM and CFIP) for the joint CD2 review. [Peoples]