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PreCam Overview: WBS, Schedule, Budget, Science Case, etc. (Presentation+Discussion)

- **March 11 Informal PreCam Review...**
- **Work on PreCam Science Case by Rich Kron**
- **Discussions with Pat Seitzer**



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WBS, Schedule, Budget Estimates since March 11

Gantt Chart:

<http://home.fnal.gov/~dtucker/DESCalibWBS/PreCamWBS/PreCam-GanttProject-chart.html>

WBS:

<http://home.fnal.gov/~dtucker/DESCalibWBS/PreCamWBS/PreCam-GanttProject-tasks.html>

Basis of Estimate Summary:

<http://home.fnal.gov/~dtucker/DESCalibWBS/PreCamWBS/PreCam-BOE.pdf>

<http://home.fnal.gov/~dtucker/DESCalibWBS/PreCamWBS/PreCam-BOE.xls>



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PreCam WBS Overview: Proposed Level 0 and Level 1 Management

PreCam Survey Project Leader: Douglas Tucker or ~~TBD~~

WBS 1: Instrumentation

Steve Kuhlmann & Darren DePoy

WBS 2: Survey Strategy & Mountaintop Operations

Douglas Tucker & ~~someone from University of Michigan~~

↓ Mike Schubnell

WBS 3: Data Processing & Analysis

Douglas Tucker & TBD

WBS 4: Management

Douglas Tucker & ~~TBD~~ Darren Depoy



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WBS 1: Instrumentation

Proposed Level 2 Management

WBS 1.1: PreCam Camera

Leader(s): Steve Kuhlmann and Juan Estrada(?)

Resources: ANL Group, DECam CCD Group, Marco Bonati?, SISPI?

WBS 1.2: Filters (grizY)

Leader: Darren DePoy

Resources: Texas A&M Group, ~~Brian Nord~~ [Greg Tarle](#), TBD

WBS 1.3: Flat Field Screen & Illumination System

Leader: Darren DePoy

Resources: Texas A&M Group

WBS 1.4: Folding Flat

Leader: Darren DePoy

Resources: Texas A&M Group



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WBS 2: Survey Strategy & Mnt-top Ops

Proposed Level 2 Management

WBS 2.1: Survey Strategy

Leader: Douglas Tucker

Resources: Douglas Tucker, Jim Annis?

WBS 2.2: Mountaintop Operations (primarily Observing Runs)

Leader: University of Michigan Group (individual: ~~TBD~~ [Mike Schubnell](#))

Resources: University of Michigan Group, ANL Group, Darren DePoy, John Peoples?, J. Allyn Smith, others



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WBS 3: Data Processing & Analysis

Proposed Level 2 Management

WBS 3.1: Data Processing Pipeline Development

Leader: TBD (Sahar Allam, David Burke, Luiz da Costa, Brian Nord, ...)

Resources: TBD (Sahar Allam, David Burke + SLAC postdoc, Luiz da Costa + Brazil Group, Brian Nord + University of Michigan Group, Douglas Tucker, Nickolai Kuropatkin?...)

WBS 3.2: Data Processing Operations (Running the Pipeline)

Leader: TBD (Luiz da Costa?)

Resources: TBD (Brazil Group?)

Ricardo Ogando, Marcio Maia, Beatriz Ramos, and Luiz da Costa are working on running the Oct 2008 CTIO-1m DECam chip data through their pipeline as a test case for PreCam processing.

WBS 3.3: Data Analysis (Transformations, Standards, Final Catalog, WDs)

Leader: Sahar Allam?

Resources: Sahar Allam, J. Allyn Smith, Douglas Tucker, others?



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WBS 4: PreCam Survey Management Proposed Level 2 Management

WBS 4.x: TBD

Leader: TBD

Resources: TBD (Rich Kron, John Peoples, Douglas Tucker, ...)



Action Items from Mar 11 Meeting

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- Douglas Tucker will provide the Brazil Group with the data from the October 2008 CTIO-1m DEcam 2k x 2k observing run. ✓
- The Brazil Group will run the CTIO-1m data through their data processing portal as a test case for PreCam data processing. [In progress.](#)
- Douglas Tucker will contact Jon Thaler and Klaus Honscheid to inquire into how they perceive the role of SISPI in the PreCam project. (✓)
- Douglas Tucker will contact Jon Thaler and Klaus Honscheid to find out how many computers SISPI needs and how expensive they are. (✓)



PreCam Science Case

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- Rich Kron has been working on the science case. He estimates that, for the exposure times estimated to get to the magnitude limits proposed in the original PreCam document DES-doc-2374 (g,r,i,z,Y to 18.7, 18.3, 18.0, 17.3, 15.9), the PreCam Survey would take about twice as long as originally estimated in that document (96 nights vs. 47 nights).
 - Assumes larger between-field overlaps and takes into account various overheads.
- Douglas has been re-calculating the exposure times for PreCam and also estimating the bright magnitude (saturation) limit for given PreCam exposure times.



Discussion with Pat Seitzer (April 10)

Douglas and Pat had a very productive discussion regarding PreCam and the Curtis-Schmidt on April 10. Among the issues discussed:

- Pat clarified some misunderstandings I had regarding making the official request to use the Curtis-Schmidt for PreCam.
- Unfortunately, it won't be possible to use the Curtis-Schmidt in Dec 2009/Jan 2010 as we had originally hoped.
- The current thinking is that DES could reasonably request 2 lunations -- in Dec 2010 and Jan 2011 -- plus a couple of weeks for an engineering/test run in July or Aug 2010. NASA would need to have "bump" privileges if an important event related to their program occurred during PreCam observing time. Furthermore, PreCam would need to take into account the 10% of observing time that is reserved for the Chilean astronomical community.
- Pat provided several useful suggestions for Rich Kron's writeup of the PreCam science case.
- There is currently no agreement between DES and Michigan for the use of the Curtis-Schmidt, but Michigan is willing to very seriously consider a request for telescope time.