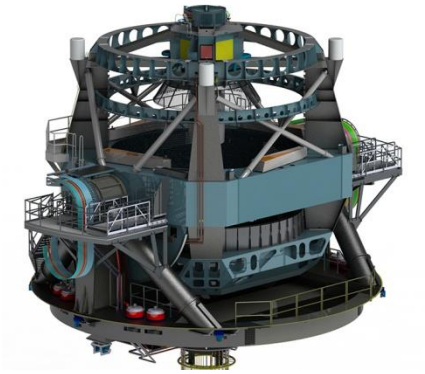
Summary Status for October 2015

The Large Synoptic Survey Telescope (LSST) will be a large-aperture, wide-field, ground-based facility designed to obtain sequential images of the entire visible sky every few nights. From its home on Cerro Pachón in northern Chile, the LSST will conduct a 10-year survey that will deliver a 200-petabyte set of images and data products that will address some of the most pressing questions about the structure and evolution of the universe and the objects in it, including:

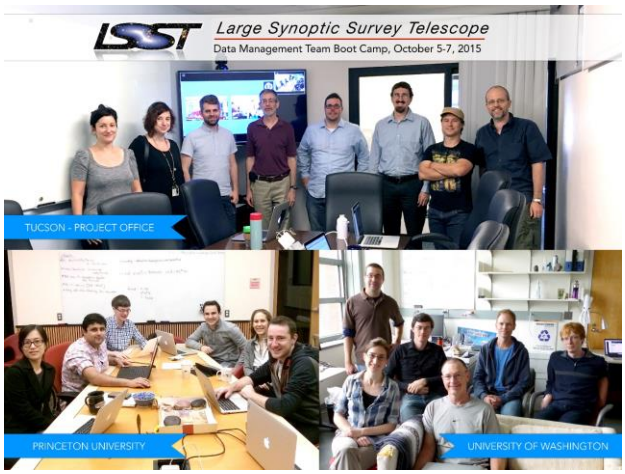


- Understanding Dark Matter and Dark Energy
- Hazardous Asteroids and the Remote Solar System
- The Transient Optical Sky
- The Formation and Structure of the Milky Way

The LSST Project Office (LSSTPO), an independent Association of Universities for Research in Astronomy (AURA) center, is responsible for managing the LSST construction project – a partnership between the National Science Foundation (NSF) and the U.S. Department of Energy (DOE). At the end of construction, the LSST project will have delivered an 8.4-meter aperture telescope; all required support facilities; a 3.2-gigapixel camera; a supercomputing and data storage facility in La Serena, Chile; offices for Chile-based staff; and a data archive center at the National Center for Supercomputing Applications (NCSA) at the University of Illinois in Urbana-Champaign. As lead agency, the NSF funds the LSSTPO and is responsible for the telescope and site facilities, the data management system, and the education and public outreach infrastructure. The DOE, through a consortium of national laboratories led by SLAC National Accelerator Laboratory, is responsible for providing the camera. Through the LSSTPO, the LSST construction project is managed as a single coordinated effort.

Selected Highlights of Progress in October 2015:

With the placement of steel reinforcement in support columns and beams, the summit building has begun to emerge from the foundation.



Participants in the LSST Data Management Boot Camp conducted simultaneously at LSST Tucson, Princeton University, and University of Washington 5-7 October. The camp was designed to train recent DM hires in LSST development processes, tools, and documentation.

- The Project Manager is working closely with Telescope and Site Subsystem management to support the Telescope Mount and Summit Facility contracted efforts. Both of these contractors are delayed, and the Telescope and Site team in combination with the Project Office are working on mitigations, resolutions, and contract pressure to resolve the schedule delays.

Summary Status for October 2015

- The Deputy Director initiated the coordinated effort to formulate a formal proposal for LSST Operations. The LSST Operations Proposal Team (LOPT) held its first meeting in October to establish the plan for writing and submitting an operations proposal to the NSF and DOE by December 2016.
- The Science Advisory Council (SAC) met on 5 October. SAC membership is a broad representation of the science community, reporting its findings directly to the LSST Director, and operates in a public forum to create a robust outside scientific oversight.
- LSST and EUCLID representatives collaborated to explore scientific synergies between the two projects, including sky area overlap and limiting magnitudes.
- Successful reviews were held with the contractors for the Telescope Mount, Secondary Mirror system, Dome, Camera and Secondary Mirror Hexapod/Rotator system, and Camera Lenses 1 and 2 package, as well as for the Analog Signal Processing Integrated Circuit chip for the camera readout electronics.
- New contract efforts began for the Primary Mirror Cell fabrication, Corner Raft Base Plate first articles and test stand, and the architectural design of the Base Facility.

Financial Status 31 October:

- NSF has authorized $107 million; in addition to work accomplished, $57.5 million is encumbered in contracts.

Financial Summary - October 2015	NSF	DOE
Total Project Cost	$473M	$168M
Budget Cost Work Performed	$52.3M	$51.2M
Percent Complete	13%	37%
Cumulative CPI	1.10	1.00
Cumulative SPI	0.82	0.94
Remaining Contingency	$77M	$30M

Schedule Status 31 October:

- The NSF project has an -$11.6 million schedule variance. $10 million is due to the contracts for the Telescope Mount and the Summit Facility. Both efforts are carefully tracked by the Project Management Office. The Summit Facility will recover its schedule this building season. The Telescope Mount contract is being accelerated, and the expected residual schedule delay is being accommodated within the existing float in the project. The 0.82 schedule performance index (SPI) is low, but all critical path items are progressing as necessary to meet schedule.
- The Project continues to have more than 13 months of float and remains on schedule for October 2022 Survey Start.

Contingency and Issue Management:

- The Camera team continues to work with both sensor vendors on schedule issues. Technical resolutions have been realized, and initial deliveries are expected early in 2016, a significant evaluation opportunity. All mitigations continue to be available.
- LSST is working with the Summit vendor to accelerate progress on the site, and the tracking methodology is being updated for more accurate earned value data. Changes are being processed to update the technical and program plans for the Telescope. Schedule changes do not impact the Project critical path and will have positive impact on earned value tracking.
- Cost Account Managers are reviewing the budget profile for activities, in particular the new FY2016 packages to resolve those contributing to the cost variance.
- Both sides of the Project have healthy contingency levels at 23% and 35% of remaining work for the NSF and DOE respectively.