

RUBIN OBSERVATORY IN OPERATIONS

This is pre-COVID we expect all the dates to slip outward. We are working with NSF and DOE on a replan.



For the first ten years of operation, Vera C. Rubin Observatory will perform the Rubin Observatory Legacy Survey of Space and Time (LSST), using the Rubin Observatory LSST Camera and the Simonyi Survey Telescope.

COST:

Total annual operations costs are roughly \$70M.

STAFFING:

Rubin Operations will require approximately 162 full time employees (FTEs) at the start of the survey with additional support for some services from SLAC and NOIRLab, and approximately 151 FTEs in steady-state. Steady-state operations in FY27 will require 53 FTEs working in the Observatory Operations department primarily in Chile at the summit and/or base facility. 56 FTEs will be in the Data Production department with responsibility to produce and support access to all Rubin LSST data products, 7 FTEs will support Education and Public Outreach (EPO), 22 FTEs will comprise the System Performance department, and the remaining FTEs will work in the Director's department.

IN-KIND CONTRIBUTIONS:

Rubin is seeking in-kind contributions from international groups to support operations in exchange for data access, and ability to use Rubin data and publish results from Rubin data identical to US and Chilean scientists. Invitations to contribute were sent in October 2019 to internationals with extant Memorandums Of Agreement (MOAs) with the LSST Corporation. The invitation discusses contributions that add value to the Rubin enterprise, or to US science in general. These include resources like access to otherwise proprietary data sets and telescope time. Rubin is also working directly with some groups to provide in-kind contributions that would directly offset operations costs. Letters of Intent for contributions were due in November 2019. Rubin has established a Contribution Evaluation Committee (CEC) which is reviewing the LOIs and will provide feedback to the internationals this summer to help them develop full proposals with a goal of having the proposals approved by the end of the year.

DATA PRODUCTS:

Prompt data products - generated continuously every observing night. These include alerts with 60-second latency, source catalogs derived from difference images, and image data products with 24-hour latency.

Data Release data products - made available annually as the result of coherent processing of the entire science data set to date. These include calibrated images; measurements of positions, fluxes, and shapes; variability information; a compact description of light curves, and a uniform reprocessing of the difference-imaging-based Prompt data products.

User Generated data products - originating from and controlled by the community. These products are created and may be stored using Rubin-provided APIs. At least 10% of the Rubin LSST Data Management total capacity is allocated for User Generated data product storage and user-dedicated processing.

DATA ACCESS:

Reference is RDO-013 (ls.st/RDO-013).

The proprietary period for Rubin LSST data and data products is two years. Within that time, only Rubin Users can use the data. All US and Chilean scientists, Rubin Builders, and individuals with approved in-kind agreements naming foreign members (Principal Investigators with junior associates) are Rubin LSST Users. After two years, Rubin data products are public and open to all. Rubin data and data releases become public after two years. The mode of accessing the public data is not yet defined.

Rubin Users enjoy data access, that is, the ability to access proprietary Rubin LSST data as well as services through the US or Chilean Data Access Centers such as an account, access to APIs, compute resources, and help desk services.

Rubin Users have the ability to possess the proprietary data and to publish journal articles containing or based on proprietary data.

All data products for EPO are non-proprietary and therefore available to all, regardless of Rubin Observatory User status.

Rubin Observatory Users have access to proprietary data and access to tools and resources.

