

Survey Cadence Optimization Committee

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PST - Science Collaboration Chairs telecon

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Outline:

- 1) SCOC charge
- 2) Cadence optimization schedule
- 3) Q&A

Why SCOC?

“We want to make the Rubin Observatory Legacy Survey of Space and Time (LSST) as “good” as it can be given the observing system, observing conditions, science drivers, and scientists invested in its mission and legacy.”

Obviously, we need to reach beyond the Project!

SCOC Charge

The SCOC will be a standing committee through the life of the Rubin Observatory operations. The SCOC tasks include:

- 1) make **specific** recommendations for the cadence choices for the full 10-year survey (LSST)
- 2) help communicate these recommendations to the science community
- 3) make specific recommendations for “Early Science” observations
- 4) during operations, track survey progress and make recommendations for changes in survey strategy

SCOC: expert, transparent, diverse, inclusive

SCOC Charge

The SCOC members do **not** represent the specific scientific interests of the science collaborations they happen to be members of, but (like the SAC and the PST) will work to **optimize the global scientific productivity** of LSST.

To broaden the expertise of the SCOC itself, the SCOC members will actively seek input and advice from members of the scientific community and the science collaborations: **inclusiveness**.

The SCOC members will be free to share information presented in the SCOC discussions with the experts with whom they consult: **transparency**.

An open process of communication with members of Science Collaborations will lead to better understanding of, and community buy-in to, the SCOC recommendations.

Cadence optimization schedule

red: current plan, blue: proposed and under SCOC discussion

Report from Project to SCOC	Early 2020	July 31, 2020
NEW: a new workshop		Early 2021
SCOC report on initial strategy	Early 2021	Late 2021
Simulation of initial strategy	Mid 2021	Feb 28, 2022
NEW: workshop to fine-tune initial strategy		Summer 2022
NEW: simulation of the final strategy		Late 2022
Start of LSST Operations	Oct 2022	> early 2023

Four main points:

- delays due to covid-19 and overall Project schedule
- two additional workshops to enhance communication with and feedback from scientific stakeholders
- the simulation of the final strategy will be available well ahead of the operations start
- **the busiest SCOC year: summer 2020 to late 2021**

The main drivers for the two workshops:

- **first workshop:** to give a chance to the SCOC to receive feedback from Collaborations about the new generation of 100+ simulated surveys that the Project will describe in its report to be delivered by PCW2020 so that the SCOC can make cognizant recommendation for the "initial initial" strategy in their late 2021 report, and
- **second workshop:** to discuss the final detailed optimization of that strategy and fix (in our minds, in our hearts, in our docs and in our scheduling code) the "final initial" strategy before the start of operations (nominally before the end of 2022, assuming the start of operations "not earlier than early 2023")

but:

- still optimizing detailed scheduling
- uncertain covid-19 future: wait until hopefully in-person meeting can happen, or at some point declare it a virtual meeting?
- how to ensure good participation? with emphasis on recruiting more people in early career stages...

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