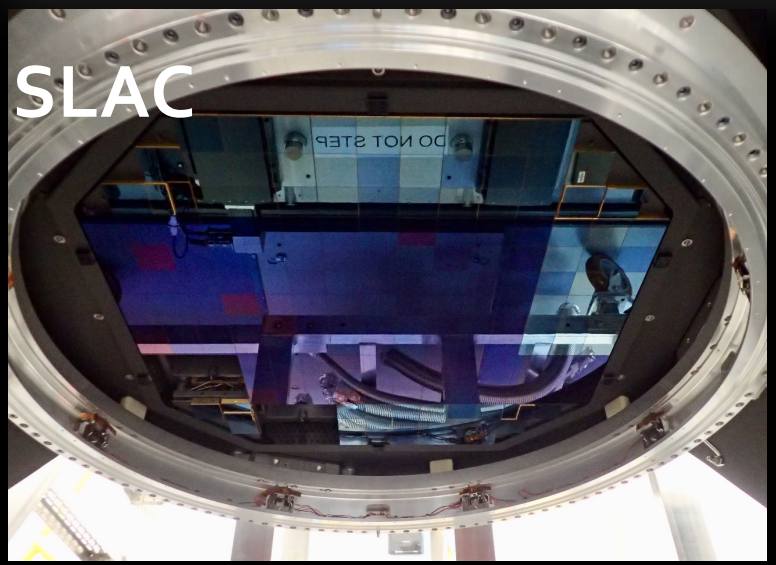
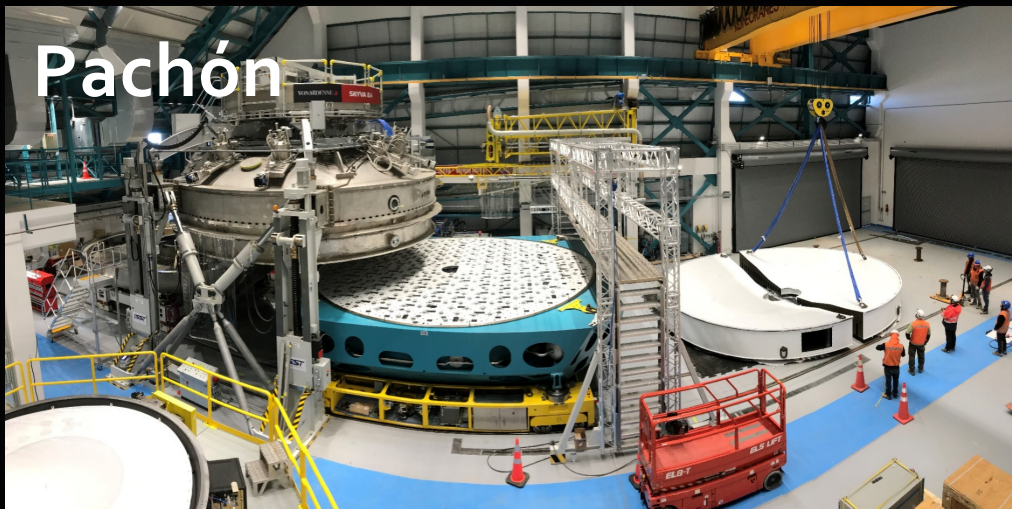


- **Observatory: Vera C. Rubin Observatory**
- **Prime program: Legacy Survey of Space and Time (LSST)**
- **Telescope name: Simonyi Survey Telescope**

1965 Georgetown Astronomy Department



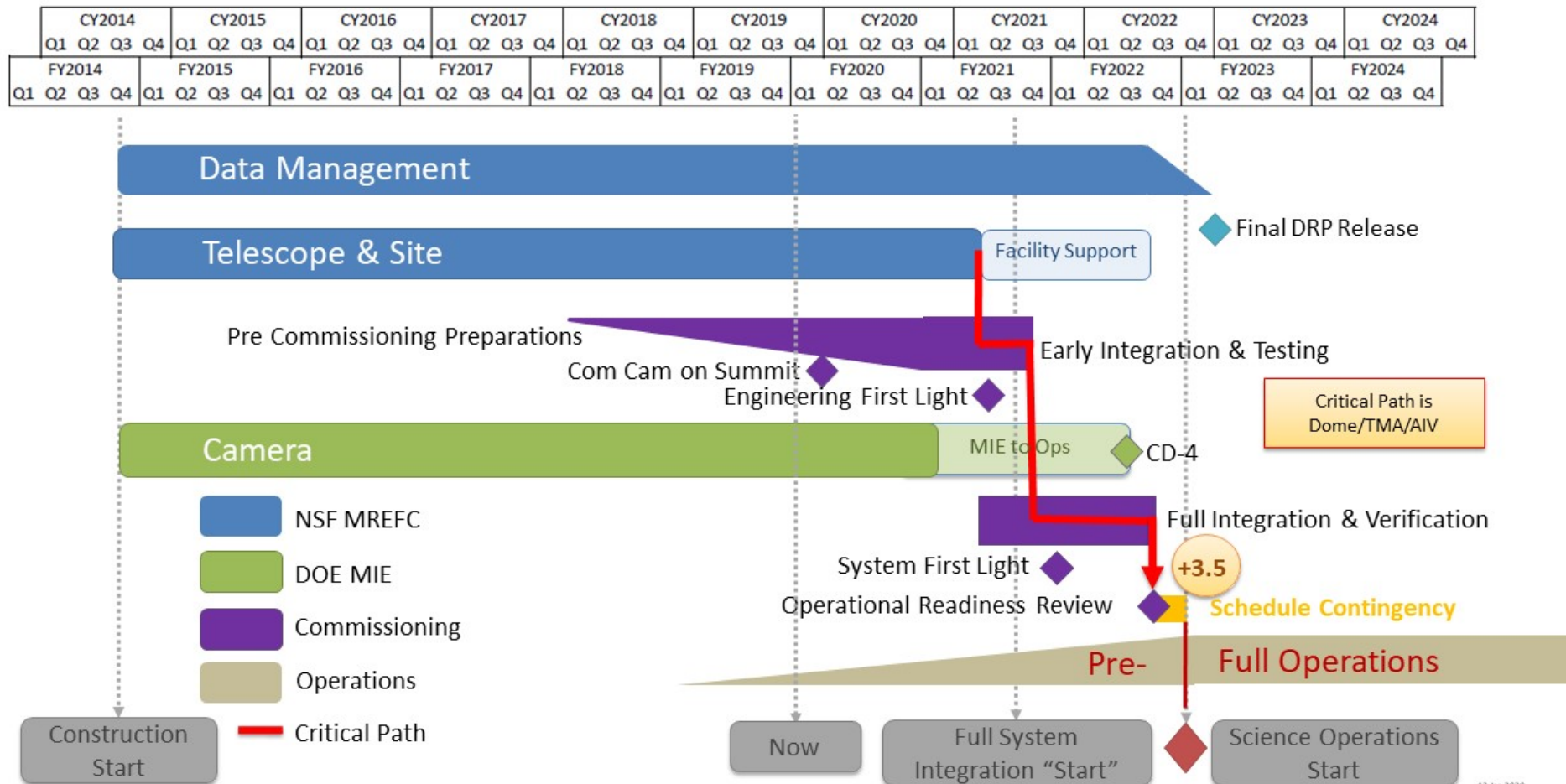


Pics from Steve Kahn's talk at AAS Hawaii, 6th Jan 2020



LSST Schedule

LSST Forecast Schedule – 3.5 Months Contingency



13 Jun 2020

Commissioning and 1st Year data plans (latest from AAS Open house 6th Jan 2020)

- System first light : late 2021 (was October 2021) – commissioning time squeezed
- At best ~5 months on-sky data with LSSTCam and 3 months Science Validation Surveys

Survey start October 2022

- Data Release 1 : based on 6 months data, takes 6 months to process. Release : Oct/Nov 2023

Commissioning and 1st Year data plans

- After DR₁ : can start “full fidelity” alert generation meaning, every image, difference and alerts
- Commissioning and LOY₁ : starting a process to solicit feedback from Science Collaborations (presume SAC too)
 - Area vs Filter
 - Template building
 - What can be done during commissioning ?

"Data Previews"



DP Dataset Cheatsheet



DP0: Simulated/pre-cursor survey data, TBD

- DESC DC2 simulated LSST survey? 300 sq deg WFD, 1 sq deg DDF, 5+ years, ugrizy
- HSC Public DR2? 300 sq deg, grizy, plus Deep and UltraDeep fields
- Something else?
- User choice?

DP1: ComCam on-sky test data

- Primary Active Optics system testing and opportunistic observing
- Small sets of "good images" that result from the successful completion of certain test phases

X
will not happen

DP2: LSSTCam Science Validation (SV) surveys

- 10 year depth: 300 sq deg, ugrizy, 800 visits per pointing
- Wide: 1600 sq deg, ugrizy, 30 visits (templates then DIA)
- Test Alert Stream (not necessarily live)

Images (early access): Spring 2021
Catalogues : Fall 2021

Fall 2021
Spring 2022

Spring 2022
Fall 2022

Preferred Options for Alert Production in LOY1

Commissioning-Data Templates

Build templates, where possible, from commissioning data before the start of LOY1, and use them to generate alerts during LOY1.

LOY1-Data Templates

Build templates progressively from data obtained during LOY1 (e.g., on a monthly timescale), and use them to generate alerts during LOY1, either instead of, or in addition to using commissioning data to build templates.

Option	Scope	Risks	Requirements	Consistency	Science
Commissioning-Data Templates	potential minor expansion	no risk	no violations	somewhat* consistent	enables some** science
LOY1-Data Templates	moderate upscope (no new algorithmic scope)	no risk	no violations	somewhat* consistent	enables more** science

* because templates are built from images obtained in a short time window and because alerts cannot contain, e.g., a 12-month history or matches to nearby DR objects

** "some vs. more" is in terms of sky area in which alert generation is possible, the total number of alerts produced, and the filters in which alerts can be produced

- Lasair should aim to be operationally ready for the start of LOY01 : October 2022