



Welcome to an Exciting Year in Chile

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U.S. DEPARTMENT OF
ENERGY

SLAC

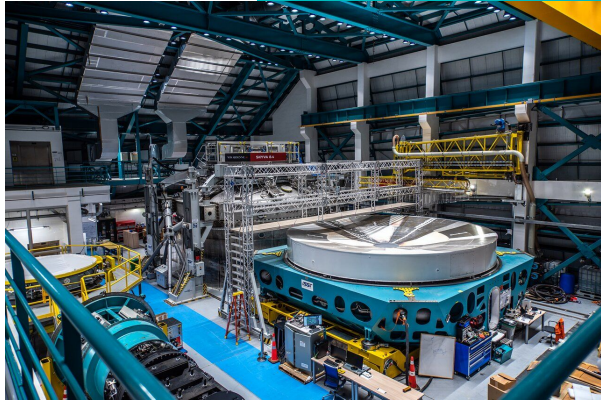
CHARLES AND LISA SIMONYI FUND
••• FOR ARTS AND SCIENCES •••



Meeting Conduct

- Remember we have a code of conduct for meetings Document-28973 and one for communications Document-24920.
- Shared responsibility for health of the community and thus meeting atmosphere
Respect - consider a variety of viewpoints and approaches:
 - notbuttinginconstantlywhenotherpeoplearespeakingbecausewedisagree Honesty - be prepared for some civil discussion
- To respect every one's time a good meeting should have:
 - An agenda which should be largely adhered to
 - Recorded Minutes with Decisions and Actions (which may be confluence Jira)
- In this online meeting we will have a moderator in each session
 - Use raise hand feature of zoom for questions (as moderator requests)
 - Questions may be best in DM slack channel with threads (rather than zoom chat)

Welcome to Chile!

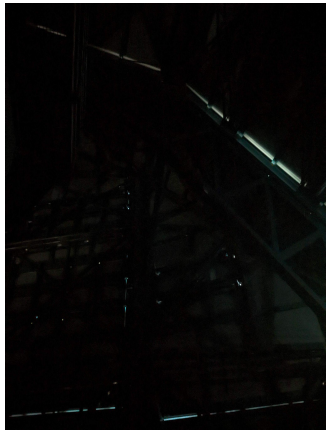


Lots of activities going on

- Testing (M1M3, M2)
- TMA I&T
- Rotator/CCW Tests
- Dome I&T
- AOS

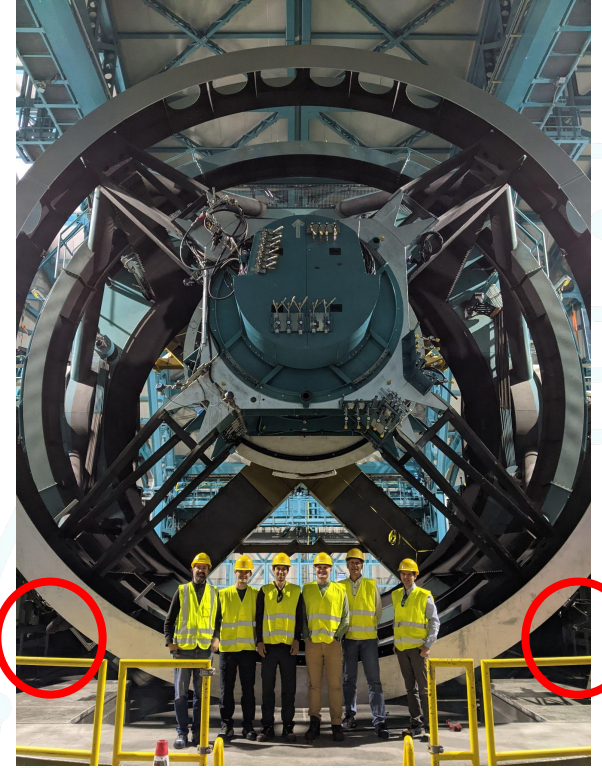
Quick Update: Dome is moving

- Main Shutter motors installed but still opening it “by hand”
- Dome does move but we have to follow the telescope manually
- Inside baffles are being installed



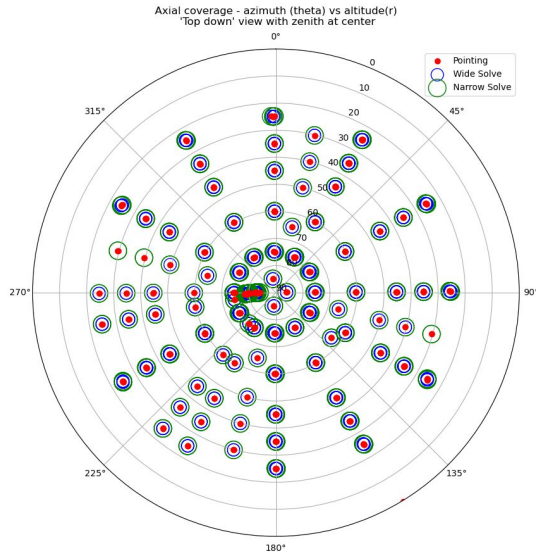
Soak Test Report -> End-to-End Test

- Achieved (occasional) 8-10 hours of continuous slewing and tracking
 - Preliminary checks of jitter, slew and settle by Craig Lage: <https://sitcomtn-057.lsst.io/>
 - Mostly for software and interface testing/bug fixes
- Prioritizing Dynamic Requirements to verify before M1M3 install
 - Maximum velocity, acceleration, jerk
 - Pointing Tests
- End-to-end Test
 - Running full duty cycle for 3 days (Soak random walk or scheduler mode)



Quick Update on TMA: Pointing Tests

Excellent dataset taken the evening of 20230222 enabled the generation of a clean pointing model with low RMS. Ultimate goal is to achieve 2 arcsec RMS pointing accuracy (We are at ~ 2.8 arcsec).



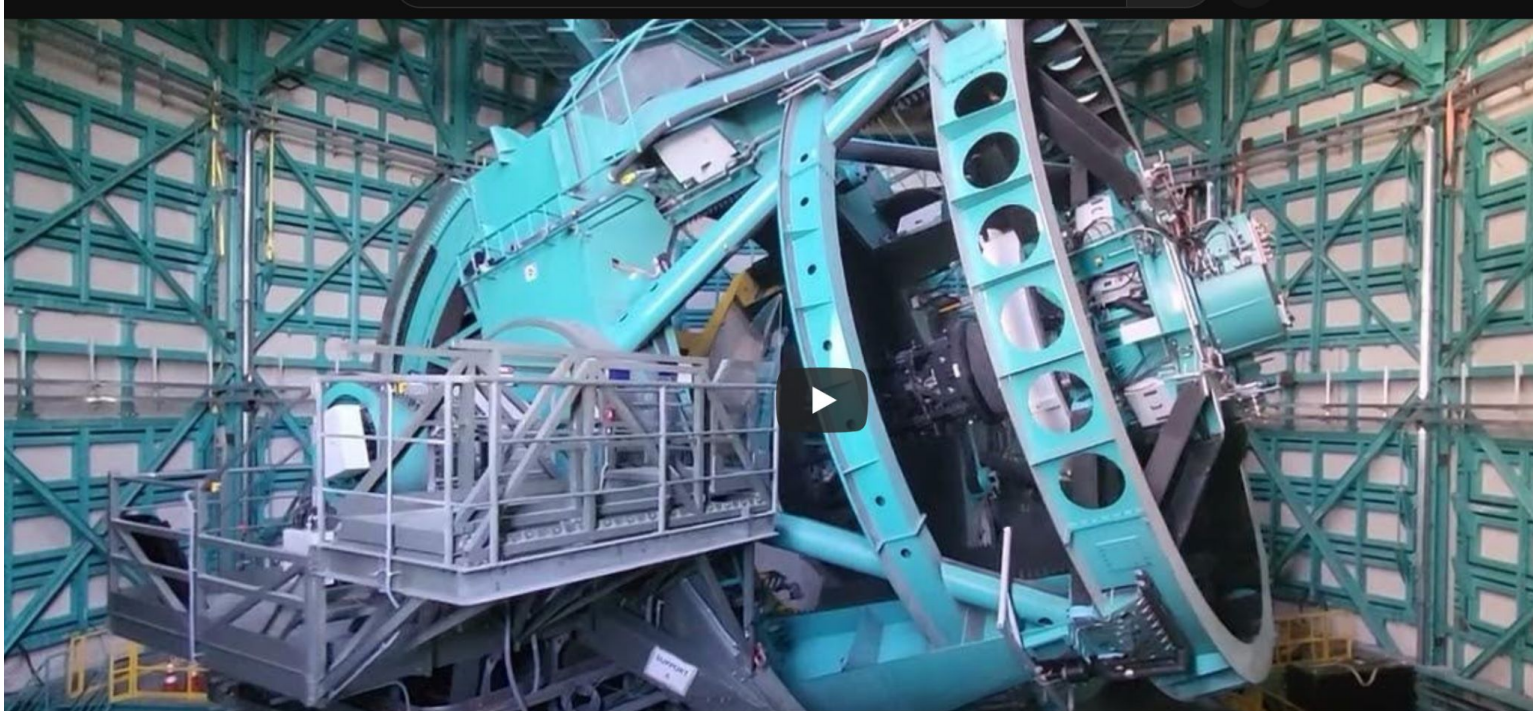
Pointing Performance

- Repeatability, relative accuracy, offset accuracy: verify with star trackers
- Jitter, Slew and Settle time: confirm with accelerometers, high speed camera
- Tracking drift: verify with star trackers

Help is needed for data analysis.

The Telescope moves

https://www.youtube.com/watch?v=Kd_ZbK1zwcA

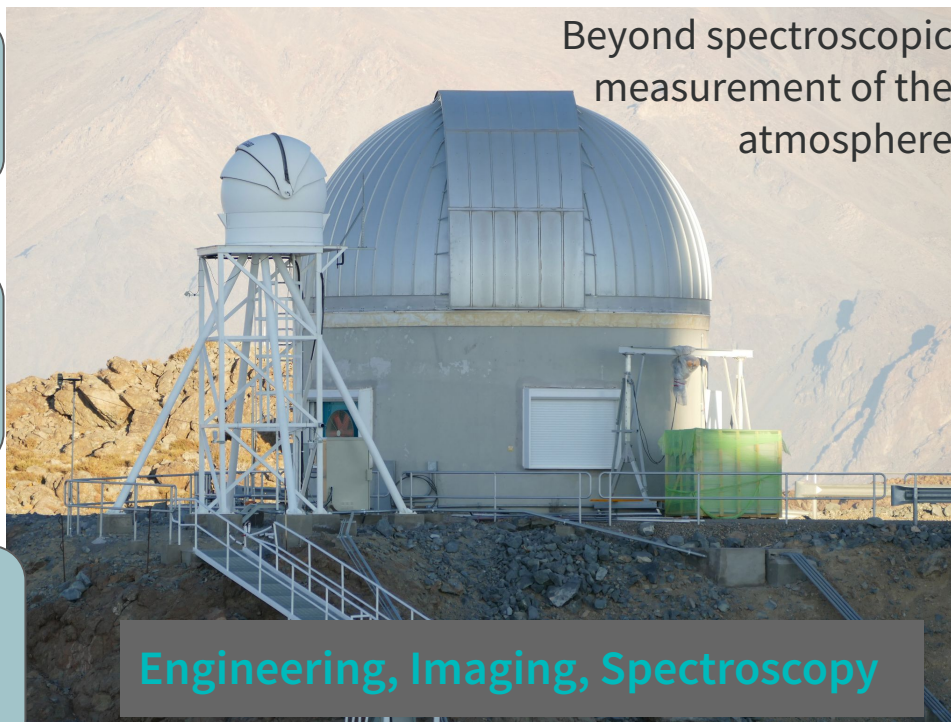


AuxTel Data Products as Pathfinder

Difference imaging
campaign

Science
performance
metrics and plots

AOS
commissioning
rehearsal



Beyond spectroscopic
measurement of the
atmosphere

Engineering, Imaging, Spectroscopy

Photo credit Andy Connolly

Image surveys

Monitor data
quality for
individual
detectors

Monitor data
quality for
evaluating survey
progress

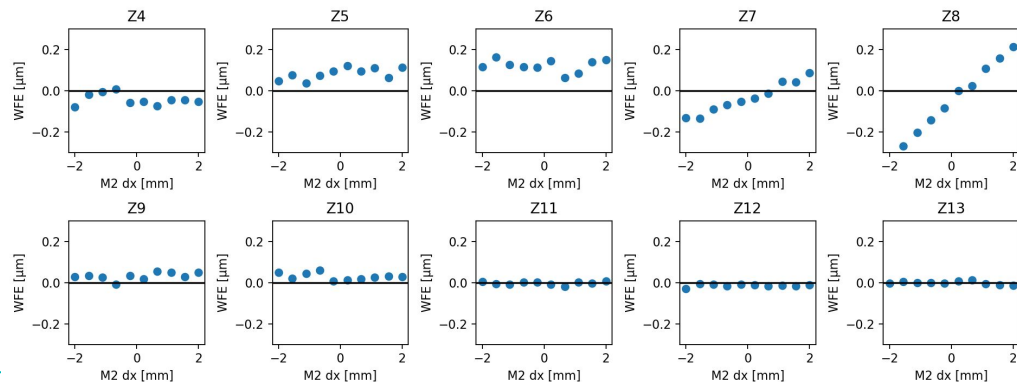
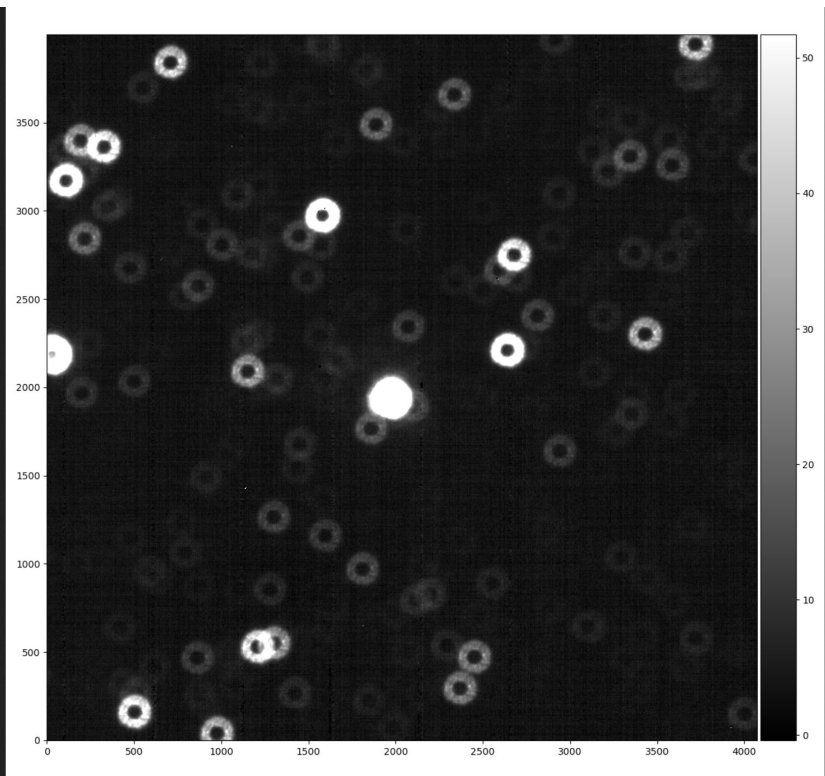
AOS with AuxTel

Friday March 10th 2023 run

Conducted several test of the AOS on AuxTel

- Exercised ISR
- Sensitivity matrix optimization
- Chromaticity impact on WFS

More from Andy C. and Josh M. at the JTM



AuxTel Calibration Illumination System Installed

- Narrowband illumination system now installed on Pachon thanks to Parker Fagrelus and Craig Lage
 - Proxy illumination system for Simonyi Telescope
 - 1kW QH-Lamp + Monochromator allows a tunable bandpass
 - Includes photodiode+electrometer and fiber spectrograph system to characterize output
- Illumination optics will be re-worked
 - Intensity is currently non-uniform



Also lots of good progress in the Tucson Lab on the Simonyi calibration suite: Flat field screen, CBP, illumination system

First Look and Feedback Functionality (FAFF)

First Look and Feedback Functionality Group finished, producing two reports:

<https://sitcomtn-025.lsst.io/> and <https://sitcomtn-037.lsst.io/>

Group focused on functionality needed to perform continuous nightly commissioning informed by data from the past 30s to 24 hours.

Primary needs:

A Rapid Analysis framework to determine if the last frame was OK

Visualization tools to link camera performance metrics with telescope / environment behavior

Feedback on last night's data before plan for current night is finalized

FAFF Implementation Group (FIG) recently formed to implement FAFF recommendations

Group leadership includes Scot Kleinman and Tony Johnson <https://sitcomtn-059.lsst.io>

Patrick Ingraham is the product owner, Wil O'Mullane is the executive sponsor

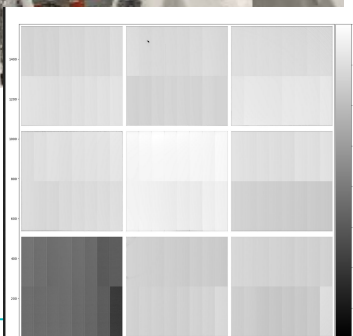
Other Updates

- **Started work on Concepts of Operations (ConOps) Definition and Night-in-a-Life-of-Rubin documentation and working group membership**
 - Setting up ticket workflows for daytime and nighttime issues in Jira
 - Implementation will be used as soon as it's ready
 - Standardizing Slack channel naming and usage/purpose
- **Work on Rubin observing Support.** Let Anastasia know if you're interested.
- **Schedule workshop** - April 3-4 to review and update the Project strategic plan and schedule forecast based on events since November.

Camera Verification getting ready to start again!



Spare raft



Management change



Vincent Riot PM



Martin Nordby PM



Travis Lange Deputy PM

Rubin Timeline (<https://dmtn-232.lsst.io/>)

2023, a key year for full system integration and commissioning!

Nowish TMA
Handoff to
Rubin

July: Arrival of LSSTCam
on the summit

Mirrors I&T on TMA

System First
Light ~
August
2024.

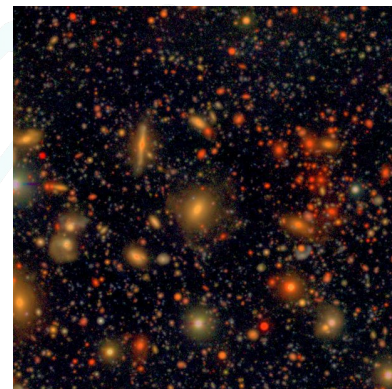
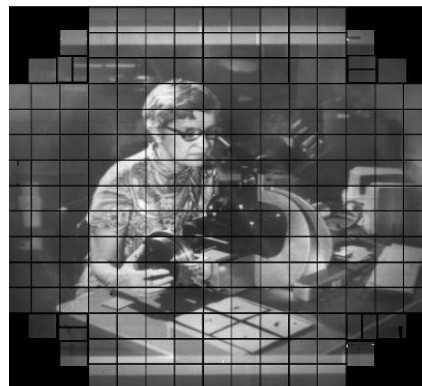
Dec: Final
pipeline
delivery

LSST
starts
FY25

2023

2024

2025



Thank you for your participation in the kindness chain



More at
[#rubin-be-kind](https://twitter.com/rubin-be-kind)



Upcoming Meeting, Events, and Holidays

Upcoming Meetings & Events:

- JTM - DM & SIT-SITCom 14 Mar 2023 - 17 Mar 2023 La Serena, Chile
- Rubin Project Scheduling Workshop ~3 Apr 2023 - 4 Apr 2023, 3 sites SLAC/TUC/Chile
- PCW - August 7-11, 2023, Tucson, AZ (hotel details released on the [LSST Community forum](#))
- JSR - 21 Aug 2023 - 25 Aug 2023, Tucson, Arizona
- LSST at Europe 25 Sep 2023 - 29 Sep 2023, Poreč, Croatia

Upcoming Holidays:

- Spring Day/Good Friday/Viernes Santo 07 Apr 2023 Tucson (Rubin Construction) & Chile
- Labor Day 01 May 2023 Chile
- Memorial Day 29 May 2023 US-Tucson/SLAC
- Juneteenth 19 Jun 2023 US-Tucson/SLAC
- Día Nacional de los Pueblos Indígenas 21 Jun 2023 Chile
- San Pedro y San Pablo 26 Jun 2023 Chile
- *Please also find the list of holidays here: [AURA HR NSF Employee Hub](#)*

Thank You!



Photo Credit Peter Fergusson



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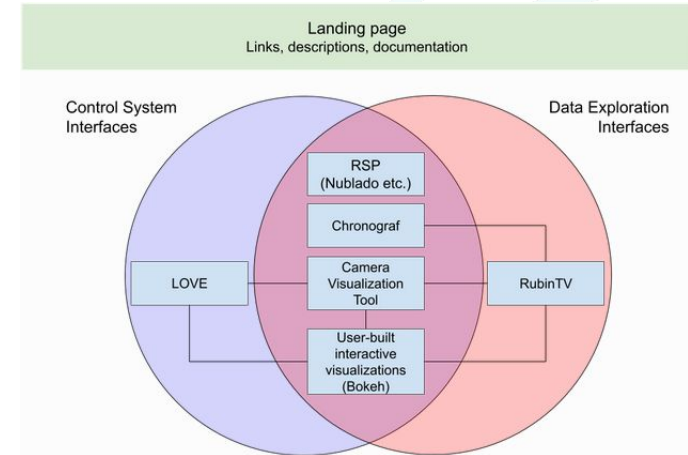
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Group mandate at: <https://sitcomtn-059.lsst.io>

First task to generate a plan and approach for implementing FAFF recommendations.

- Objective is to unite and extend existing tools wherever possible
- Expect implementation to be rolled out from now until camera on-sky commissioning



JTM topic, or contact [Scot](#) or [Tony](#) for more information. We'd love to hear your ideas.