

2022-08-19 Meeting notes

Agenda

- RSIG membership refresh - Dominic
- Mission and WFI status - Julie, Joshua Schlieder
- ongoing and upcoming community engagement - Julie

Attendees

Julie, Ashley Villar, Cristina Oliveira, Dara Norman, Dimitri Mawet, Dominic Benford, George Helou, Harry Ferguson, James Rhoads, Jeff Kruk, Jeremy Kasdin, Jessica Lu, Jessie Christiansen, John MacKenty, Joshua Schlieder, Neil Zimmerman, Neill Reid, Patrick Lowrance, Peter Melchior, Rachel Akeson, Ryan Hickox, Sangeeta Malhotra, Saruabh Jha, Vanessa Bailey

Minutes

Dominic - RSIG membership refresh

RSIG has been in place for 2 years, no rotations in membership yet. Would like to begin to refresh - you will receive a letter asking if you would prefer to stay on or step down. Hoping to make room for a few new people. In future, may have defined 3-year rotations.

Julie - Project status

SpaceX awarded launch vehicle contract awarded. Roman will launch on a non-recoverable Falcon Heavy.

Spacecraft subsystems under procurement. Continuing to build telescope up to higher levels of assembly. Star trackers (ESA contribution) are being shipped.

Ground system - Construction of dedicated ESA antenna began. Req't review passed for White Sands antenna.

Josh - Wide Field Instrument status

Key subsystems: Optical bench, element wheel, focal plane system

WFI uses a new generation of Teledyne detectors, smaller pixels than JWST/Euclid H2RG, lower dark current. This was a decade-long development program, fabrication yielded a wealth of flight candidates. The 18 flight detectors and 6 spares selected and prioritized from the 28 that passed acceptance, with very good noise performance..

The flight detectors have been integrated and aligned into the focal plane at GSFC. Control electronics undergoing assembly and testing.

The flight element wheel and drive motor have been fabricated and are undergoing tests at Ball.

Final spectral characterization of prism and grism recently completed.

Relative Calibration System also coming together, lots of flight hardware recently delivered to Goddard.

Tall poles, challenges? Some tests were more time consuming than expected, needed to automate. One tall pole will be getting the 18 detectors working in the flight focal plane with their signal chains working for flight instrument-level TVAC (beginning 2023). One thing that helps is that we learn from early tests how to plan ETU and flight tests.

Julie - Ongoing and upcoming activities

Early definition survey option - White paper review to occur in September

CAA study on Roman observations - the committee's report is currently under review, expected release in September. They are findings rather than recommendations. Would like to discuss with this group how to respond.

ROSES solicitation delayed until CAA report release, so we have opportunity to adjust the solicitation in response to the CAA study findings.

Core Community Survey Definition - planning kickoff info session at winter AAS, also a virtual event. Aiming to release white paper call prior to AAS, so that community can attend info sessions with a better idea of what they'd like to know.

- there is still a misconception that a few teams will direct the Roman surveys
- the core surveys will be defined and owned by the community
- goal for people to engage with project, science centers independently of proposal selection.
- white paper call to detail the science that could be done with each of the 3 core surveys.
- tiered committees will recommend the survey definitions

Roman Technical Working Groups and community-led science collaborations - we are looking for ways to enable/expand engagement with technical working groups prior to ROSES award selections.

- will use the new community forum to solicit participation, make the WGs more visible and easier to join
- examples of technical working groups: Calibration, Astrometry, Software, Simulations, Detectors, Spectroscopy
- In addition, there will be community-led Science Consortia (cosmology, exoplanets, etc)

Roman Community Forum - monthly meetings to discuss status and plans. First one on Friday August 26th (not yet announced).

Discussion

Will the white paper solicitation define new (General astrophysics) surveys outside the 3 core community surveys?

Open question what fraction of General Astrophysics time should be competed in traditional way, versus using community process resembling the core surveys.

It is useful to learn what kinds of science cannot be achieved with the existing core community surveys

Will the white papers be posted publicly? Yes, the core survey papers could be published in BAAS for example

Next meeting we can most likely discuss the CAA report.