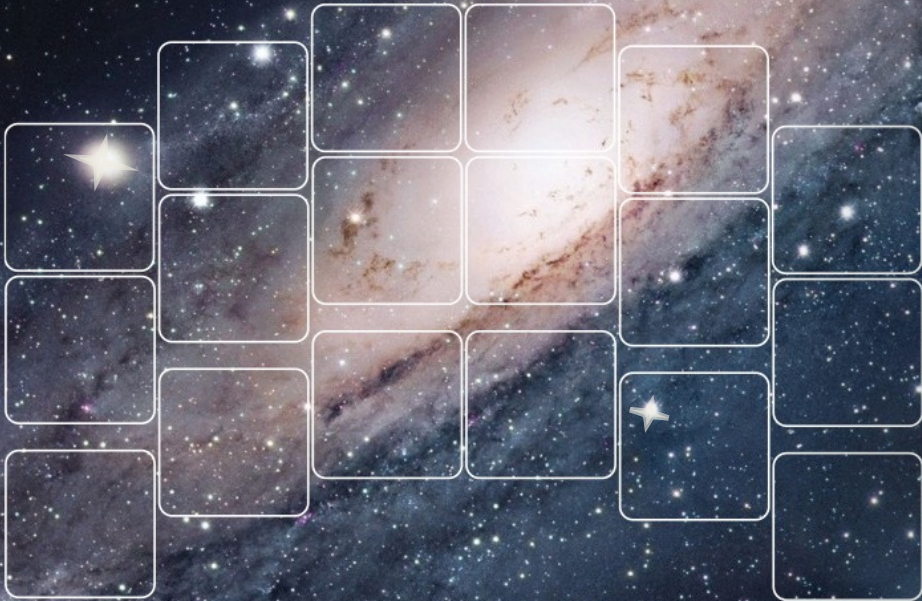




# NANCY GRACE ROMAN



# SPACE TELESCOPE



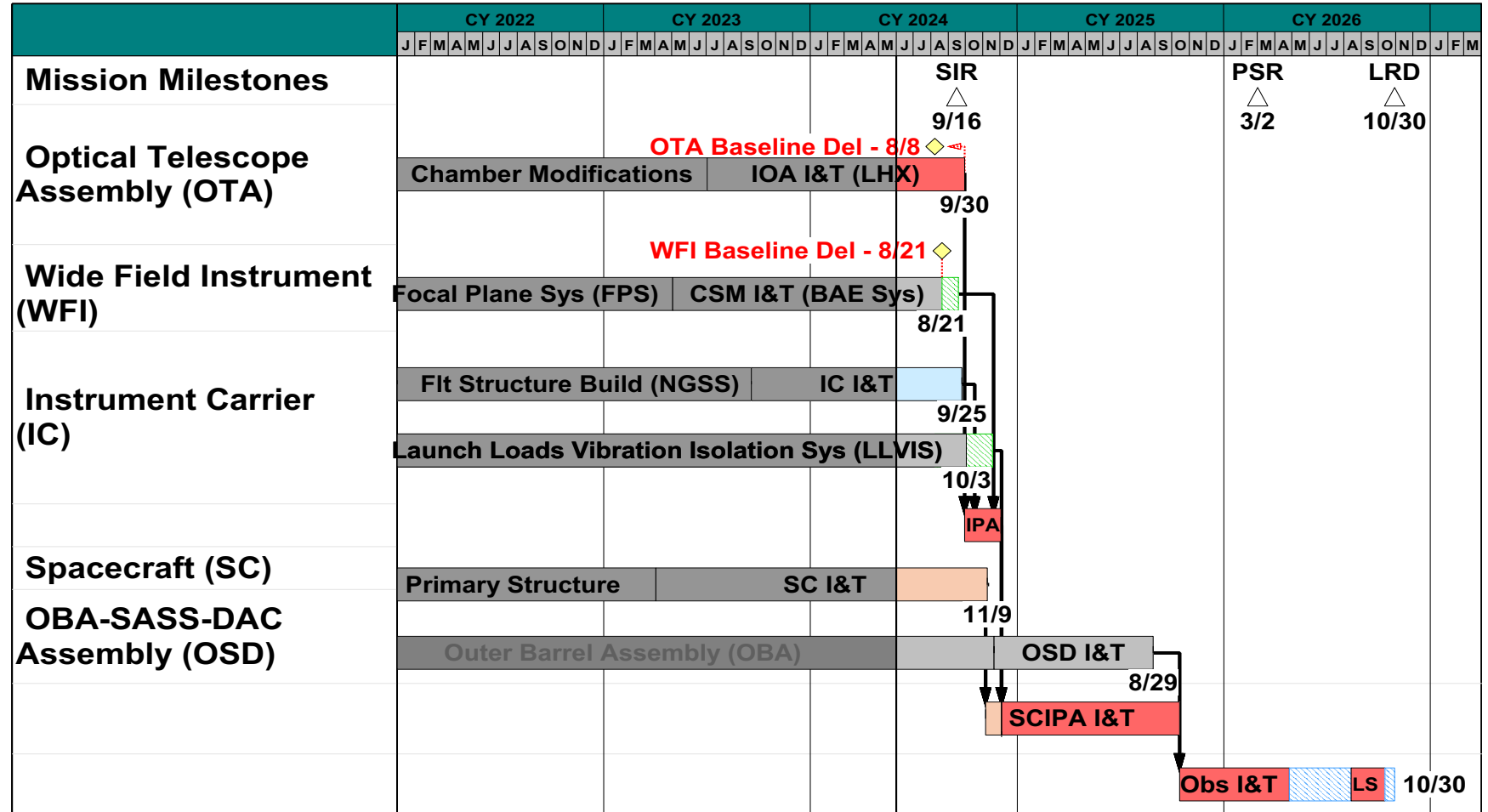
## Roman Mission Status

July 24, 2024

Jeff Kruk

# Project Schedule

- Launch 10/30/2026
- On track for Mission System Integration Review (SIR) in September 2024
- Wide field Instrument completed TVAC testing, completed EMI testing this week
- Coronagraph Instrument delivered to GSFC
- Optical Telescope Assembly complete, in environmental testing
- Spacecraft in midst of integration
- Spacecraft+payload testing begins Fall 2024
- OBA – SASS – DAC integrated Fall 2025
- Final Observatory testing thereafter



# Space Systems Development and Integration Facility (SSDIF)

Spacecraft Bus in horizontal configuration in preparation for HGAS integration

Solar Array Sun Shield B (SASS-B) Assembly and Testing

High Gain Antenna System (HGAS)/Communications Panel – ready for integration to Spacecraft Bus



High Gain Antenna (HGA)

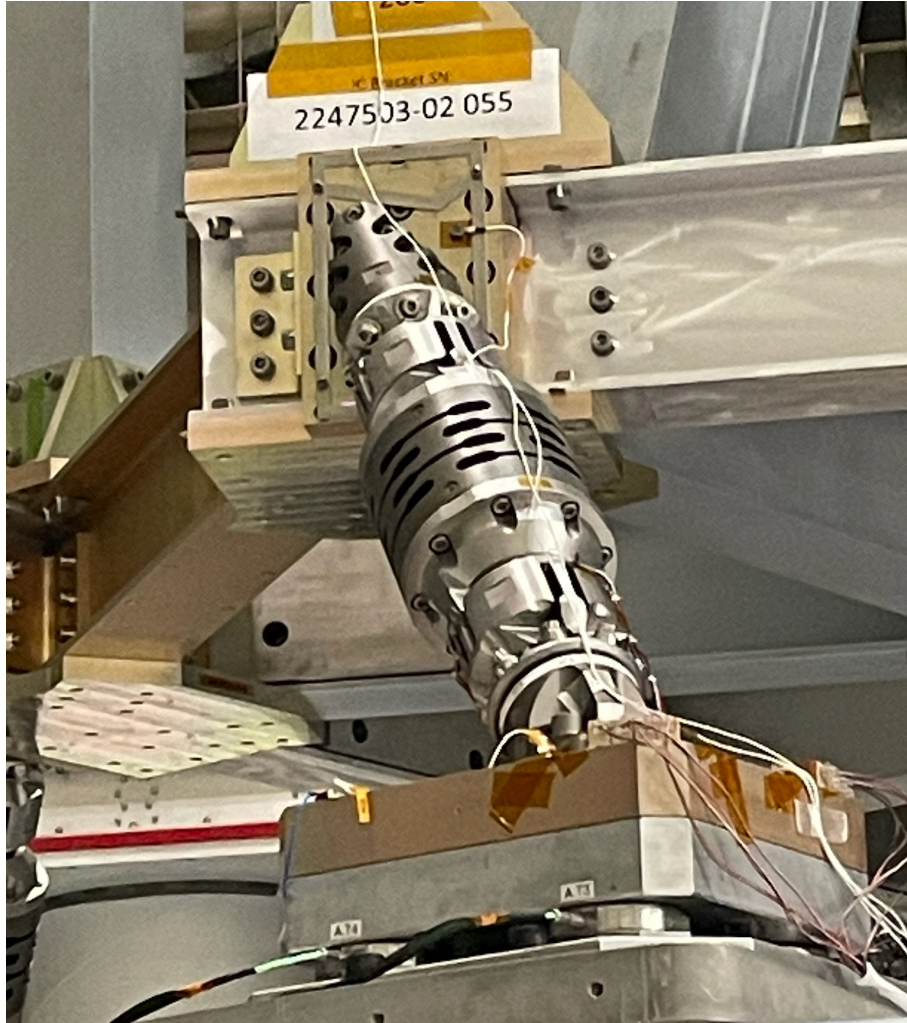
Comm panel integrated since this photo was taken

## SSDIF continued

Comm panel being moved under the S/C in preparation for being lifted into place. Electrical integration of Comm panel is now complete.



# Launch Load & Vibration Isolation System (LLVIS) Vibration Testing



Closeup of one of 6 LLVIS struts (test units, flight units to be delivered soon)



6 LLVIS struts supporting payload mass simulator on vibration table

## Outer Barrel Assembly now at Goddard

- **Outer Barrel Assembly (OBA) & “elephant stand”**
- **Being prepared for modal survey measurements**
- **OBA supports the solar arrays and the deployable aperture cover**
- **Payload (IC + Telescope + instruments) mounts directly to top of spacecraft**
  - LLVIS isolates the optical system from any vibrations present in the spacecraft
- **OBA is lowered over payload and also mounts directly to top of spacecraft**
  - There are no mechanical interfaces between the OBA and payload – no path for mechanical stress to be transmitted



## Wide-Field Instrument Ready for Delivery

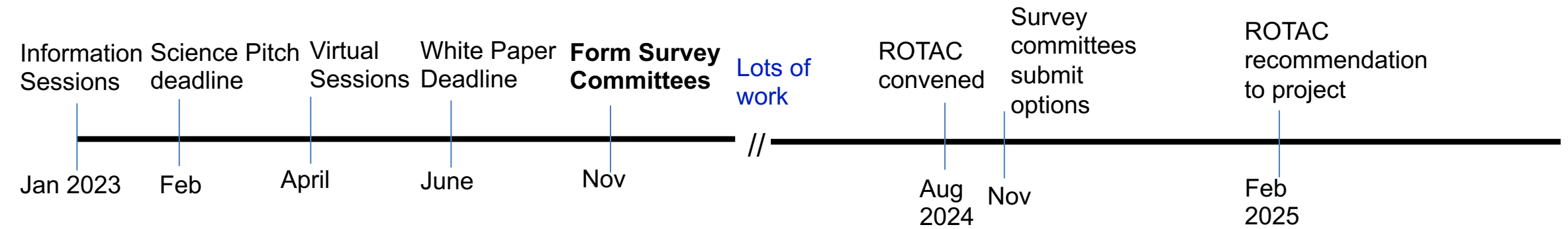
- **The WFI Pre-Ship Review is next week (Tuesday-Thursday)**
- **What is a pre-ship review?**
  - This is a standard NASA milestone for all flight hardware
  - Purpose is to confirm that the hardware has been built properly, fully tested, and meets all performance requirements
  - For WFI there are 41 categories of items to review, spanning over 1000 individual requirements
  - Was each requirement tested, data analyzed, documented? If any were not passed, was a waiver approved, or problem report closed?
  - What is plan for verifying requirements that stay open to a higher level of assembly?
  - Are reliability analyses and safety documentation complete?
  - Are shipping procedures and associated hardware complete?
    - Purging and environmental control, shock isolation, driver handoffs, etc etc.
- **Actual shipment planned for early August**
- **Information on measured WFI performance characteristics will be presented in an upcoming Forum**

# Science Conferences/Workshops

- **Roman Science Conference: Challenging Theory with Roman – from planet formation to cosmology**
  - <https://conference.ipac.caltech.edu/roman2024/>
    - talks, recordings to be posted in a few weeks
  - July 9-12, Pasadena, CA
- **Subaru-Roman planning meeting + SUPER IRNET workshop**
  - July 22-26, Beppu Japan
  - [https://www.ir.isas.jaxa.jp/Roman\\_V/index.html](https://www.ir.isas.jaxa.jp/Roman_V/index.html)
- **Roman coronagraph 2-day info session**
  - August 26-27 2024 at Caltech/IPAC
  - Detailed Roman coronagraph instrument as-built capabilities, focusing on the technical performance demonstrated in TVAC.
  - <https://conference.ipac.caltech.edu/romancgi24/>



## Core Community Survey Definition



- **Less than a year for the new committees to provide point designs for the core surveys!**
- **Committees have evaluated all inputs, working through survey options**
  - PITs performing simulations to quantify return from candidate survey designs
- **In person committee meetings and public sessions at Roman conference in July**
- **Additional public sessions planned for late August / early September**
- **Galactic Plane General Astrophysics Survey**
  - Identified chairs, forming committee (invitations going out to committee members)
  - Targeting April 2025 for candidate survey design.

**QUESTIONS?**