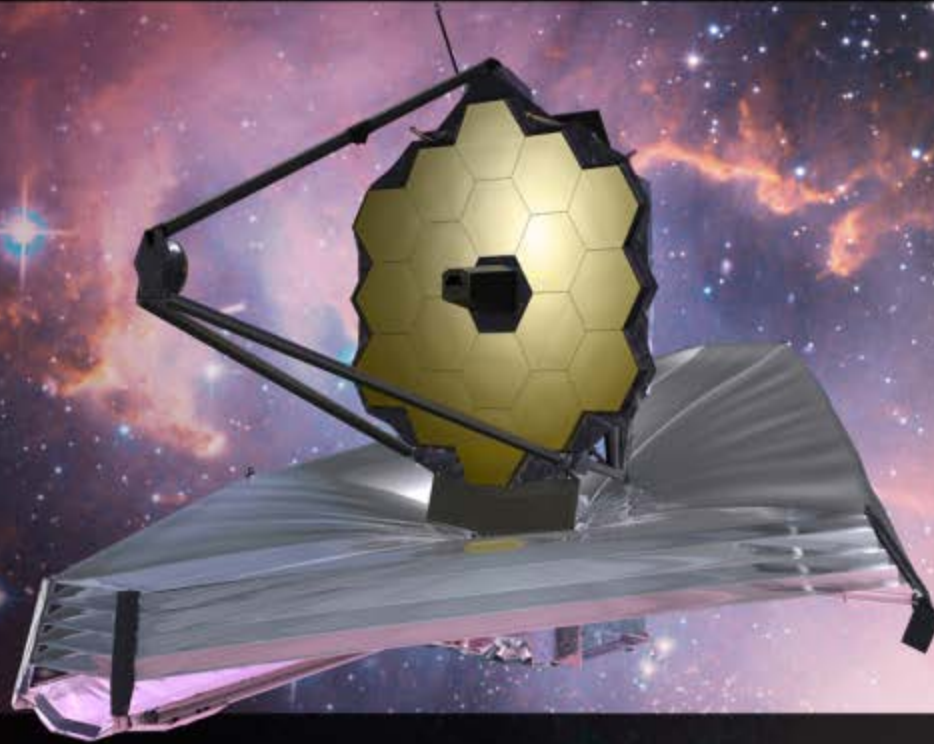


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James Webb Space Telescope

COMMITTEE ON ASTRONOMY AND ASTROPHYSICS

Gregory Robinson

March 26, 2019



Program Status



- Spacecraft Element (SCE) environmental testing:
 - Completed acoustics test in November 2018
 - Completed sine vibe end of January 2019
 - Thermal vacuum testing begins this week (3/27)
- Final IRB report released publicly Mar 1; <https://www.nasa.gov/press-release/nasa-completes-webb-telescope-review>
- Successful commissioning exercise (2nd) conducted @ STScI week of March 4
- Standing Review Board (SRB) interim review – scheduled for April 2-3 2019
- System Integration Review (SIR) targeted for August 2019 (TBC)
- ESA-Ariane V Launch Vehicle technical interface
 - Monthly TIMs with ESA/Arianespace/RUAG
 - GOWG – April 8-11 @ Kourou, French Guiana

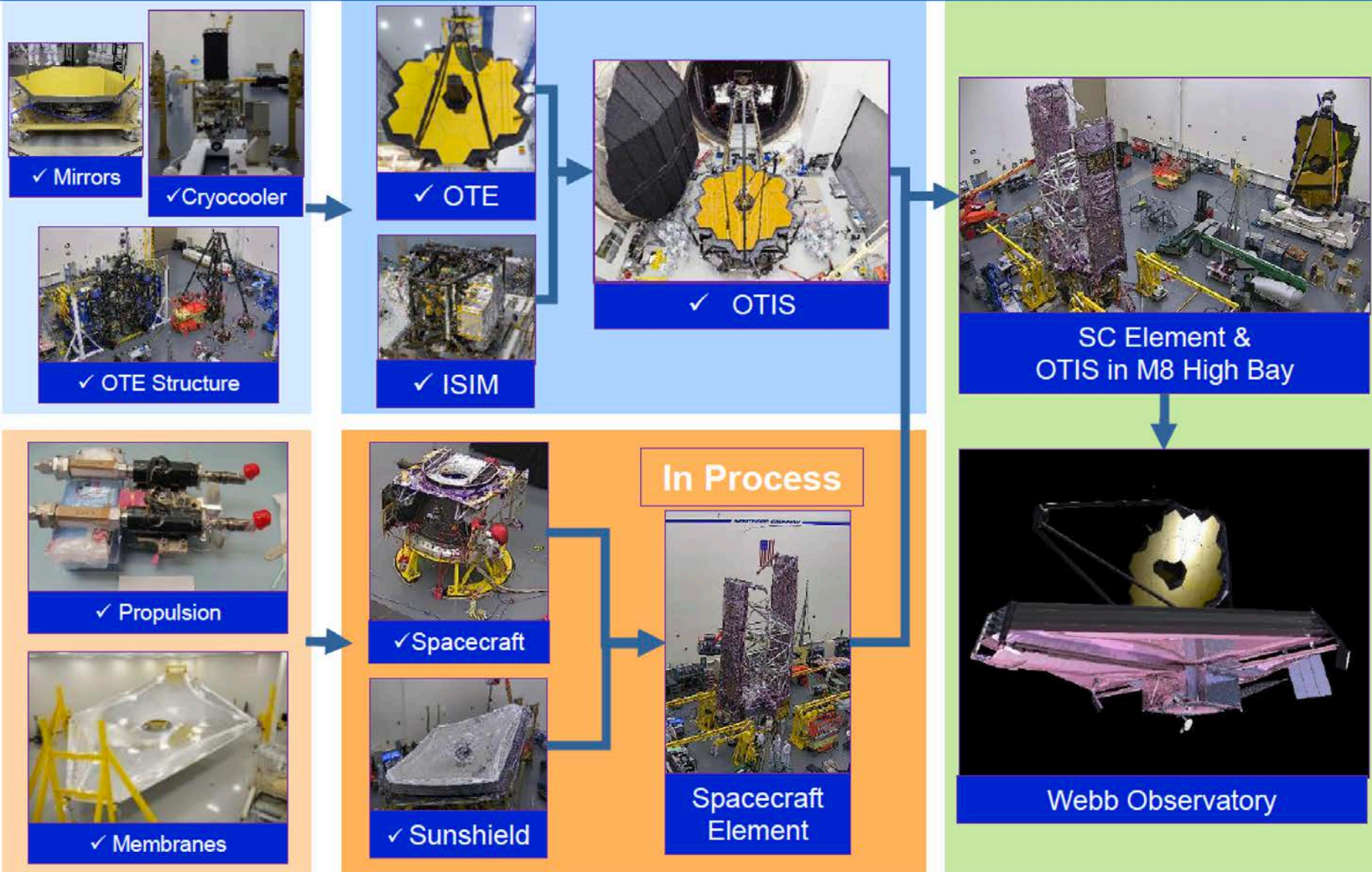


Fiscal Year 2019 JWST HQ Milestones

Month	Milestone	Comment
Oct-18	1 Conduct Wavefront Sensing rehearsal #2 at the Missions Operations Center (MOC)	Completed 10/6/18
	2 Stow the sunshield into launch position following repairs of the membrane covers	Completed 9/28/18
	3 Spacecraft Element (SCE) ready for resumption of environmental testing following MCA repairs	Completed 10/19/18
Nov-18	4 Complete Spacecraft Element Acoustic Test	Completed 10/28/18
	5 Deliver Observatory Science and Operations software build	Completed 10/19/18
Dec-18	6 Conduct Science Operations rehearsal #4 at the MOC	Completed 12/21/18
	7 Begin Spacecraft Element vibration testing	Completed 11/15/18
	8 Complete the validation of science payload software	Completed 10/27/18
Jan-19	9 Conduct a SCE Comprehensive System Test in preparation for thermal vacuum testing	Completed 9/26/18
Feb-19	10 Deliver final results for SCE environmental testing	
	11 Conduct Early Commissioning Exercise #2 at the MOC	Completed 3/6/2019 (Government shutdown delay)
Mar-19	12 Begin Spacecraft Element thermal vacuum test	
	13 Deliver the flight version of launch vehicle coupled loads analysis #2 Observatory model	
Apr-19	14 Open thermal vacuum chamber door following testing	
	15 Conduct Wavefront Sensing rehearsal #3 at the MOC	
May-19	- NONE	
Jun-19	16 Complete Spacecraft Element post-launch environmental testing deployment	
	17 Complete the secondary mirror structure deployment driven by the Spacecraft Element	
Jul-19	18 Received updated Cycle 1 proposals from the Guaranteed Time Observers	
	19 Conduct Science Operations rehearsal #5 at the MOC	
Aug-19	20 Complete Spacecraft Element post-launch environments and thermal vacuum testing folding	
	21 Observatory System Integration Review (SIR)	
Sep-19	22 Install science payload onto the Spacecraft Element	
	23 Deliver the flight version of launch vehicle coupled loads analysis #2 results and detailed assessment	
	24 Spacecraft Element Integration complete	
	25 Conduct Contingency Planning rehearsal #3 at the MOC	
Blue font(<u>underline</u>) denotes milestones accomplished ahead of schedule, orange font denotes milestones accomplished late.		



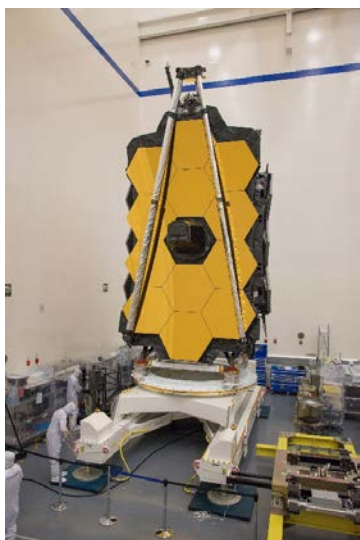
Webb Integration Flow



Remaining I&T Activities*

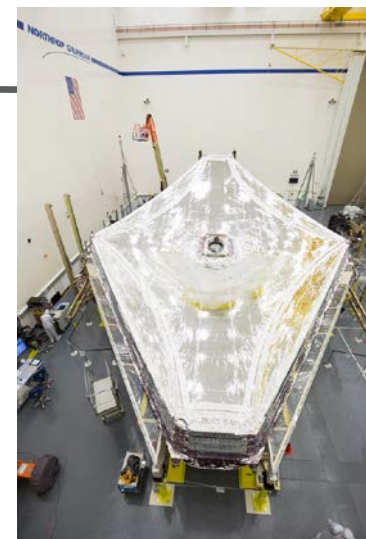
Science Payload

- OTIS Deployment at NGAS
(secondary mirror)



Spacecraft Element

- Thermal vacuum test
- Post-Environmental deployment



Observatory Integration

- Pre-environ. Observatory deployment
- Observatory fold and stow
- Observatory system (electrical) test
- Observatory vibration, acoustics tests
- Observatory deployment
- Observatory fold and stow for launch
- Observatory final system test

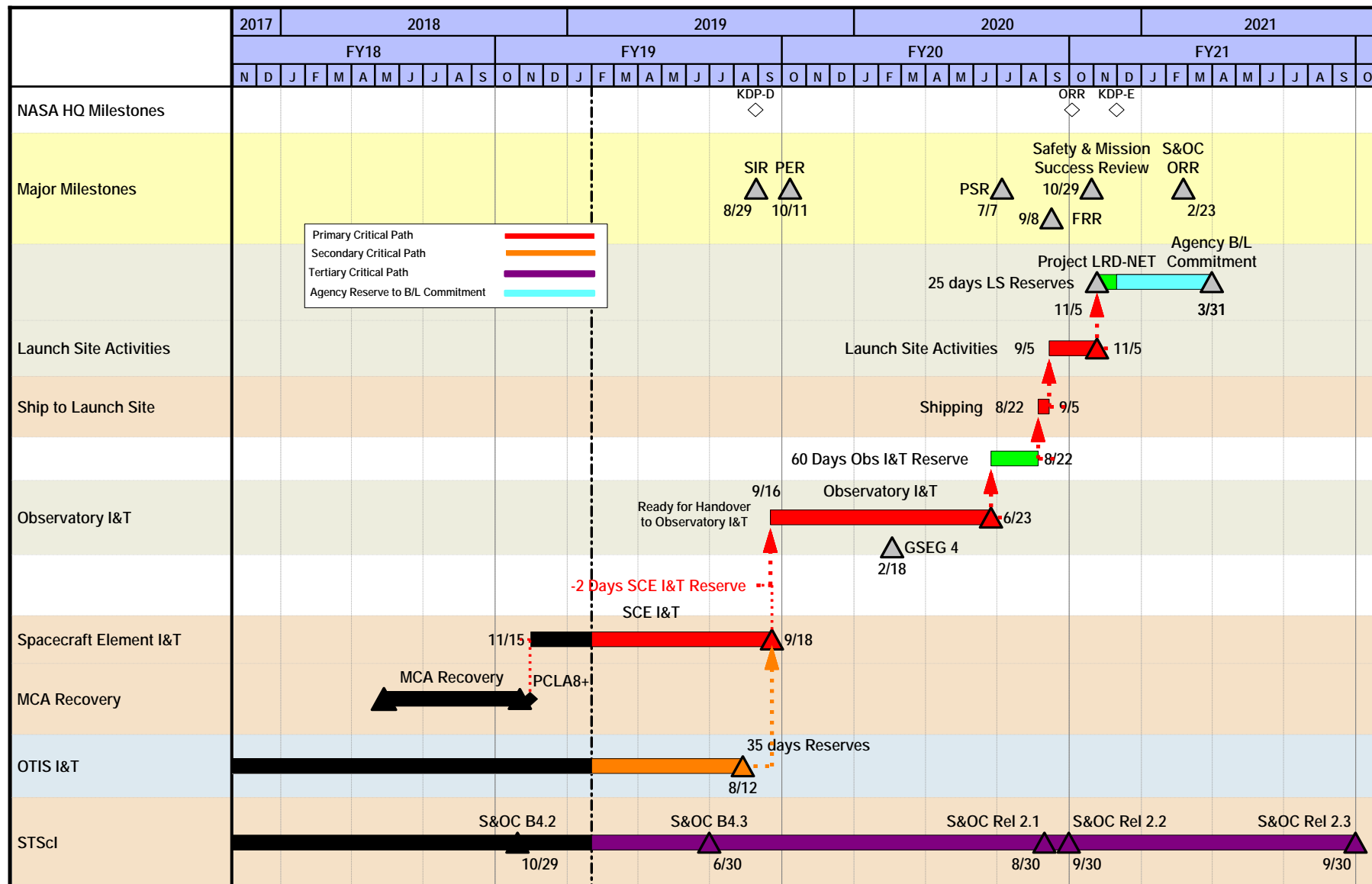
NOTE: *Top-level tasks to go.
Many activities are associated
with each of these steps

First-time activity

JWST Master Schedule

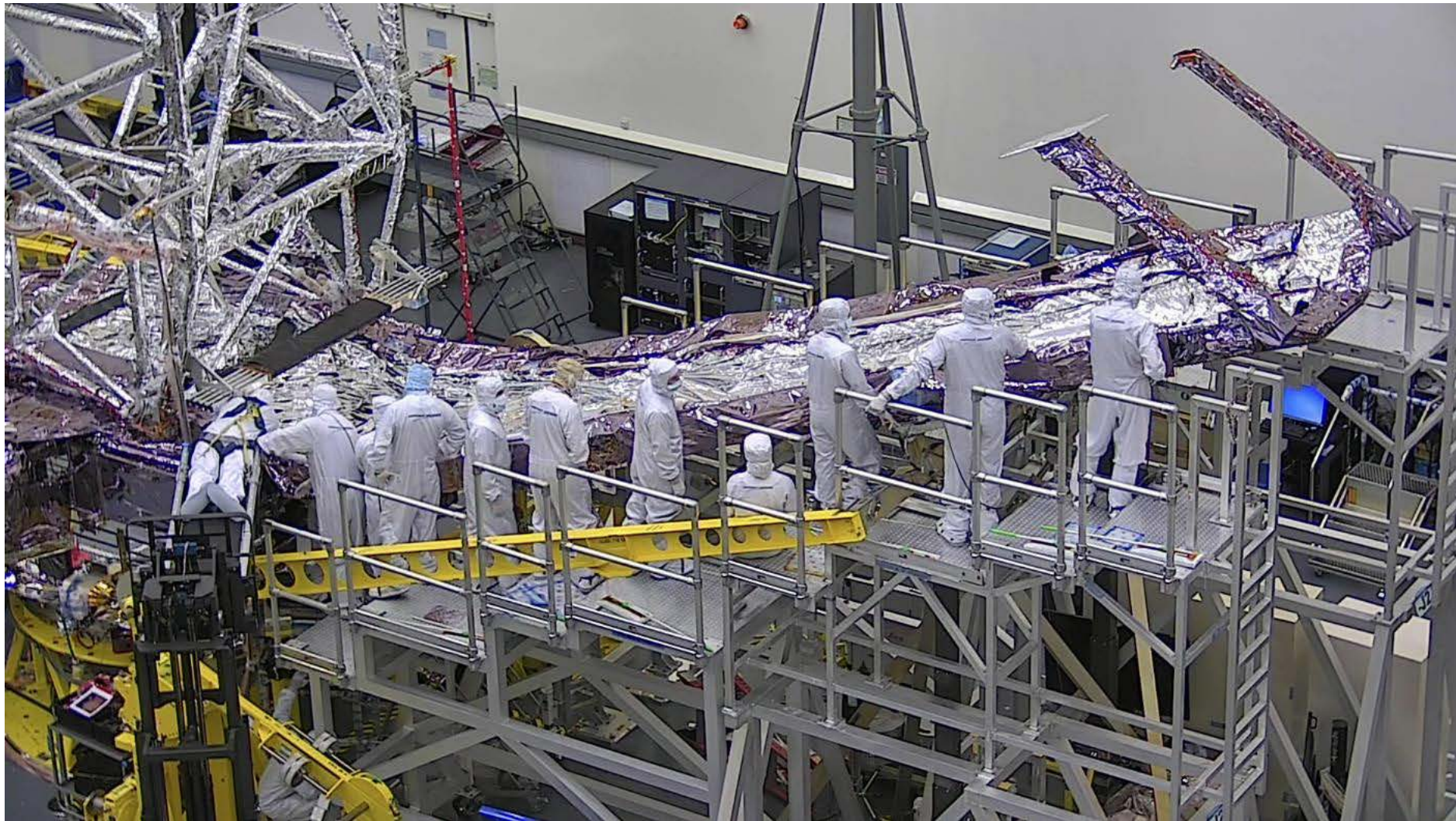
Status as of: 2/28/19

March 2021 LRD



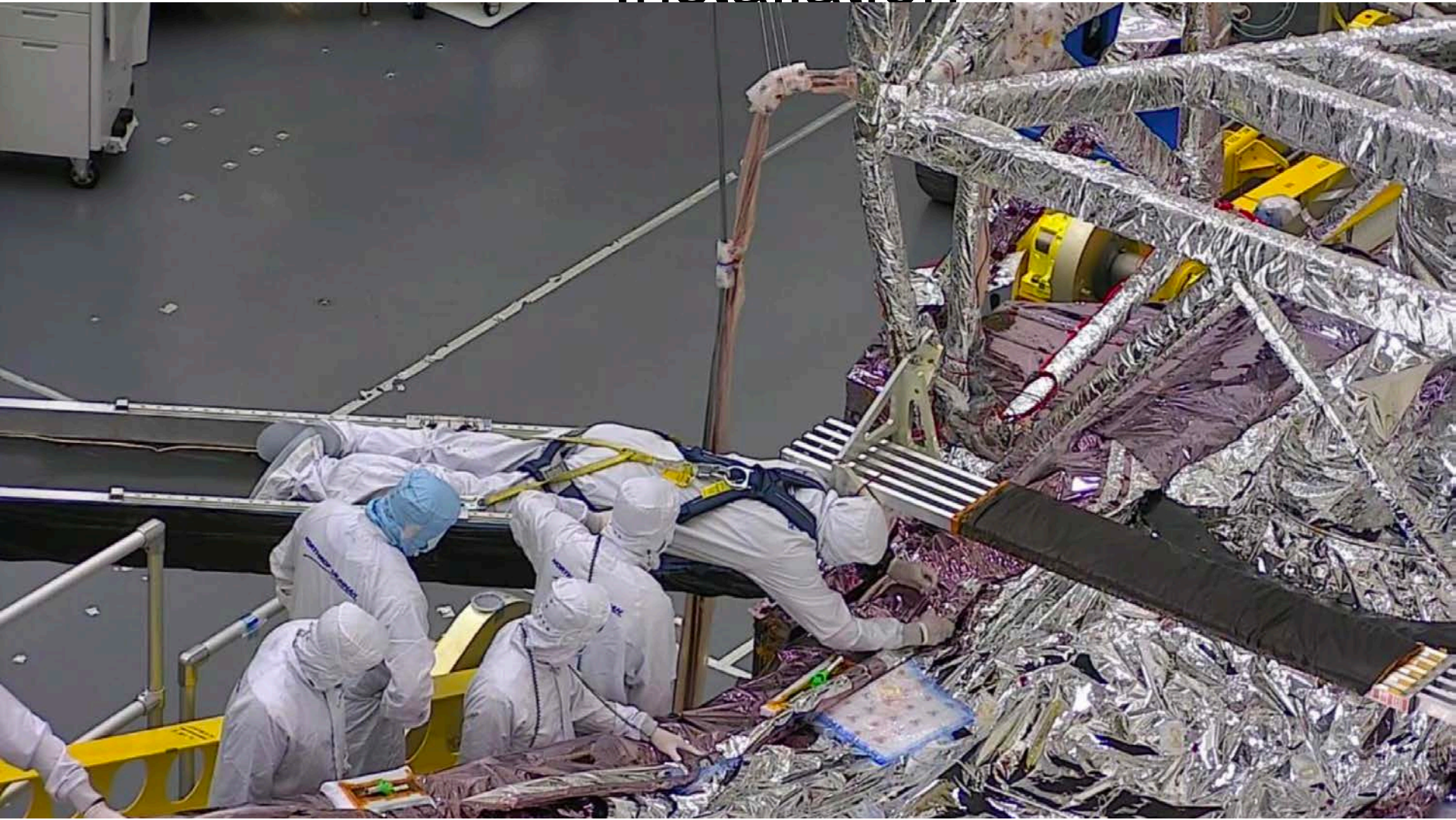


Aft UPS





Aft Membrane Cover Assembly Installation



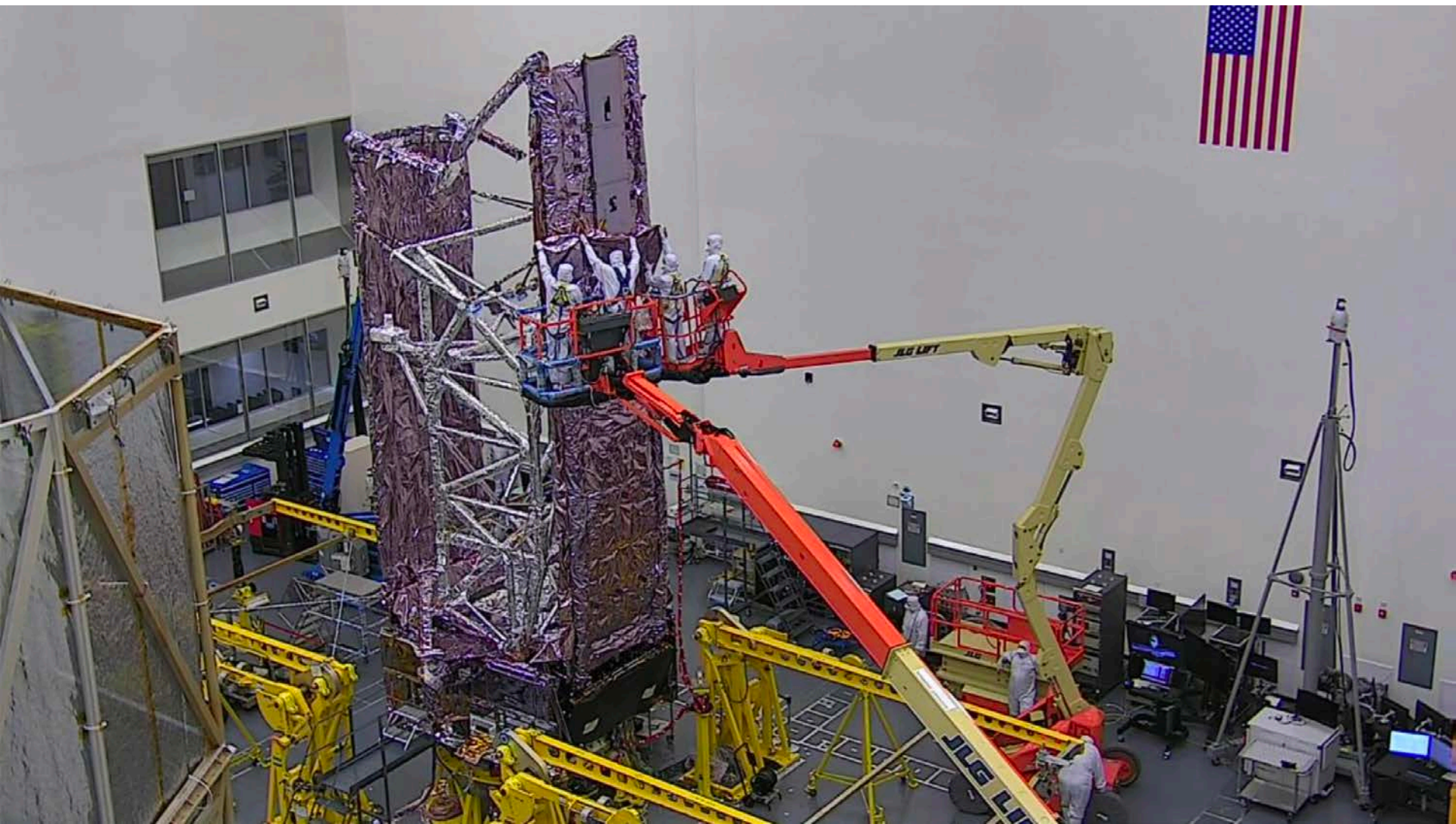


Aft Membrane Cover Assembly Rollout





Aft UPS closeouts





Aft UPS Stowed





Monitoring X-axis Vibe Test





SCE during X-axis Vibe & Highbay

