



STScI | SPACE TELESCOPE
SCIENCE INSTITUTE

EXPANDING THE FRONTIERS OF SPACE ASTRONOMY

Cycle 25 HST TAC

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June 11, 2017



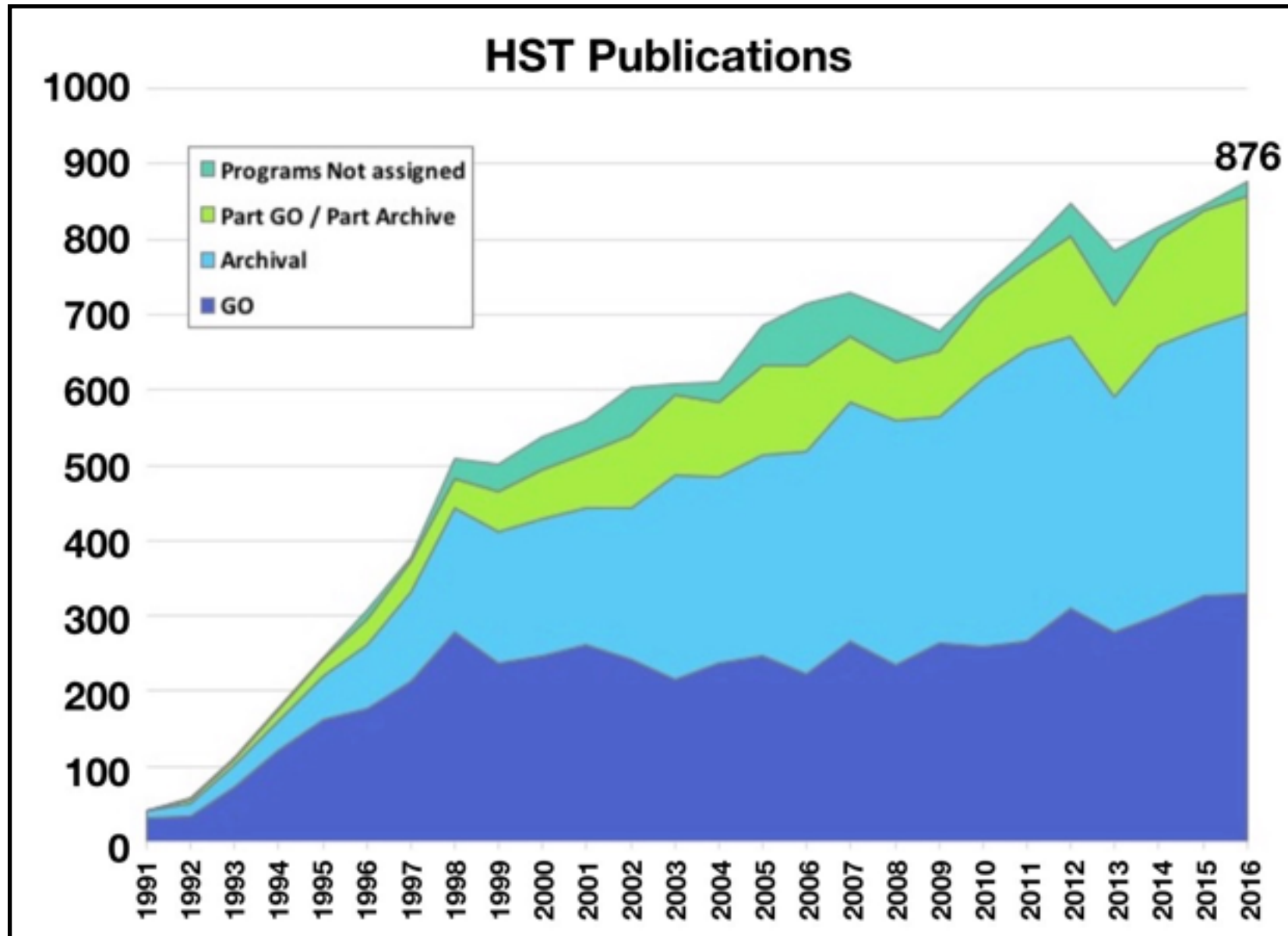
HST Milestones

- HST 27th anniversary on April 24
- Observatory, science instruments, and subsystems functioning well
- Expect several years of overlap with JWST
- Successful Senior Review in 2016, next one in 2019
- 876 HST papers in 2016 is highest output ever
- Frontier Fields initiative completed
- Received >1200 Cycle 25 proposals
 - >23,000 orbits requested
 - 3744 investigators, 275 “new”



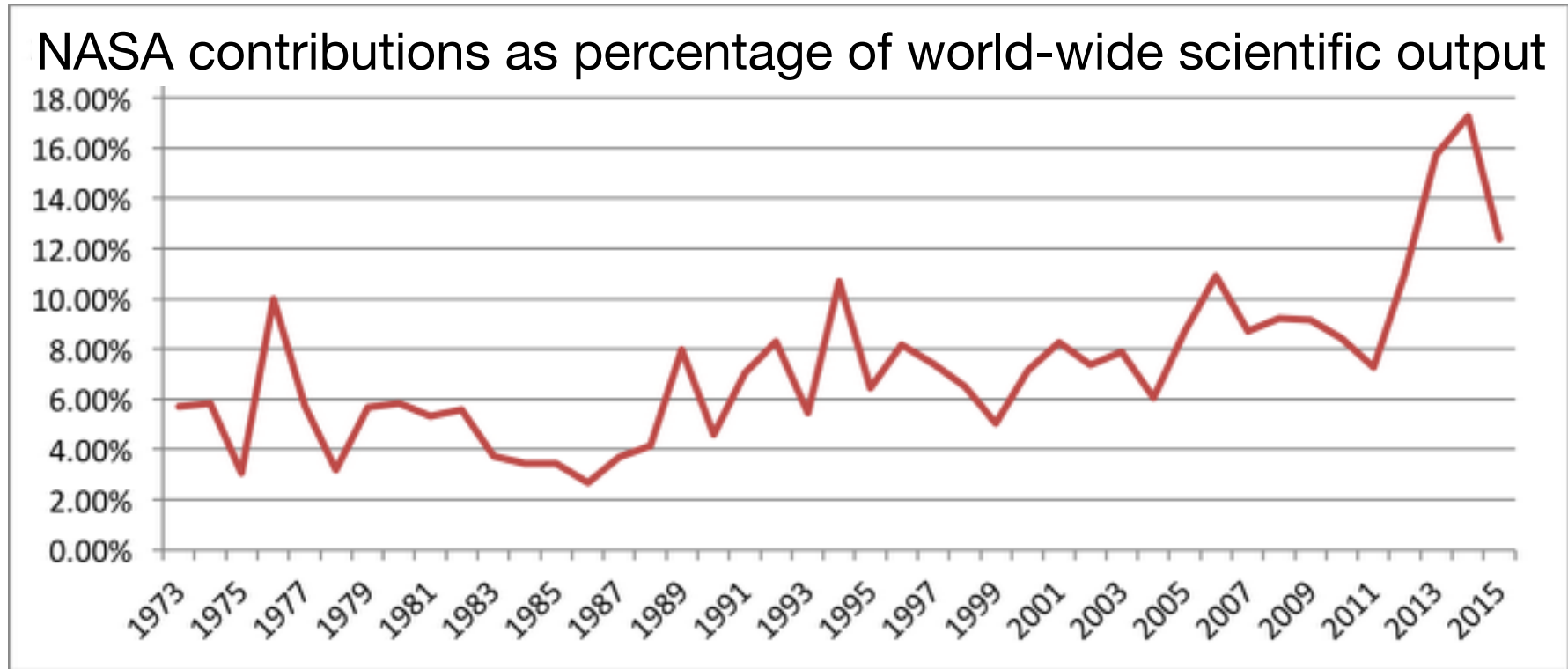


HST Publication Rate Continues to Set Records





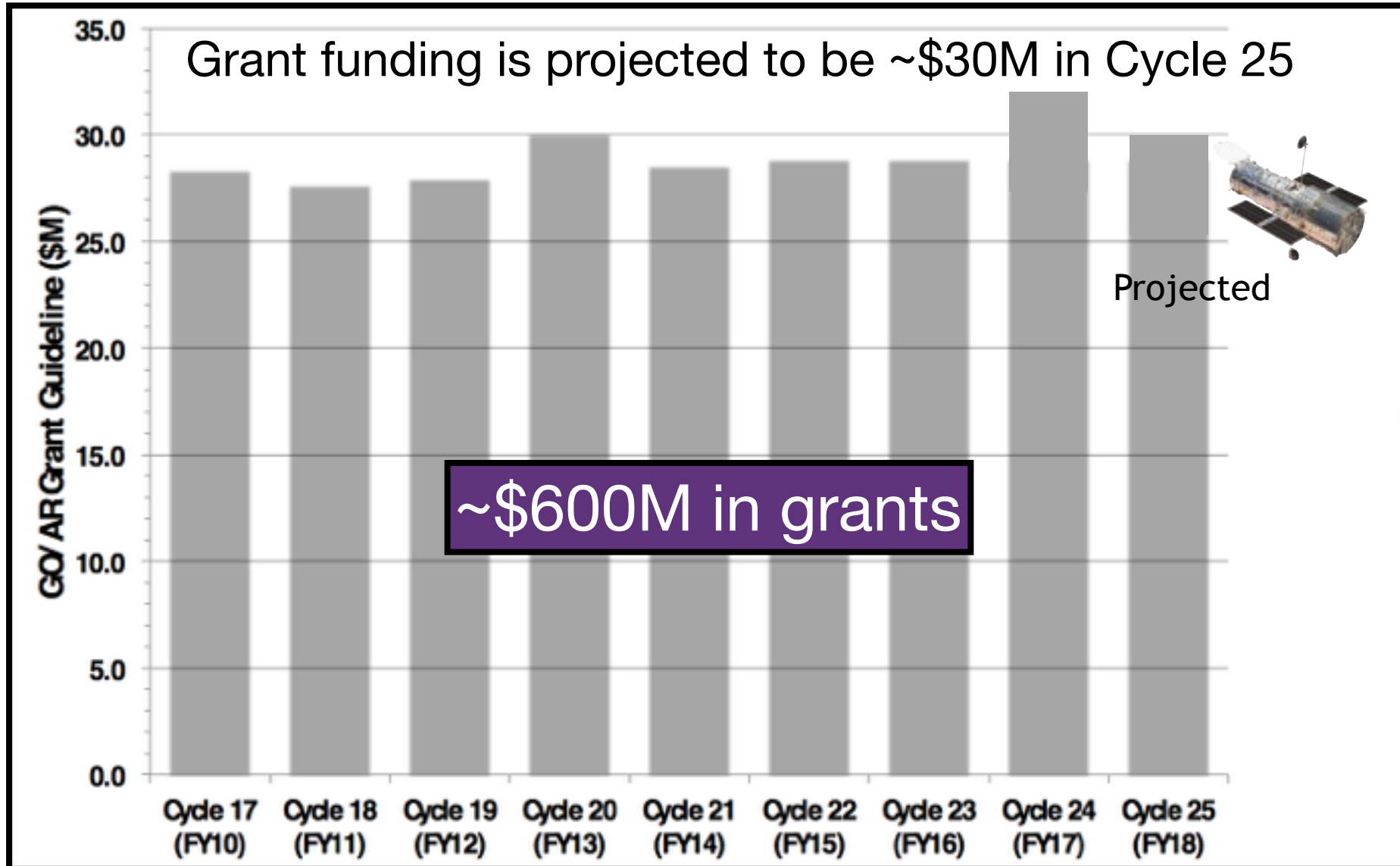
Davidson Science News Metric: 1973 – 2015



- The biggest single driver of NASA's scientific productivity increase since 1990 has been HST.
- Since launch in 1990, Hubble has produced 1.6% of world-wide scientific return.
- Great Observatories (Compton, Hubble, Chandra, Spitzer) contributed 2.4%.

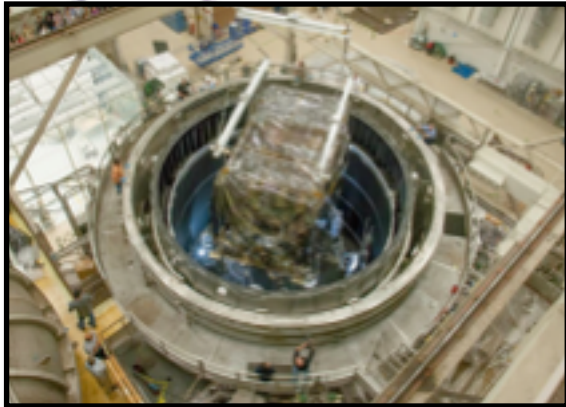


HST Grant Funding Continues to be Robust





JWST's Path to Launch (2015-2018)



Final instrument cryogenic tests at GSFC

Integrate telescope and instruments
Integrate spacecraft and sunshield



Integrate observatory and sunshield, ship to Kourou, and Launch

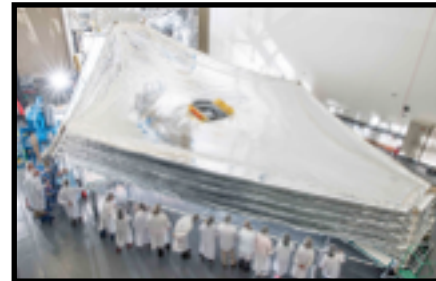
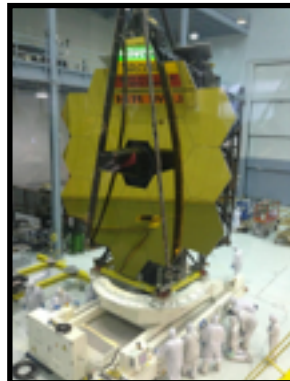
2015

2016

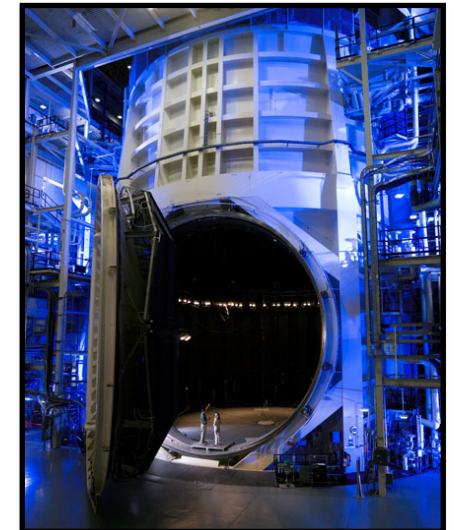
2017

2018

Assembling the 18-segmented 6.5 meter mirror

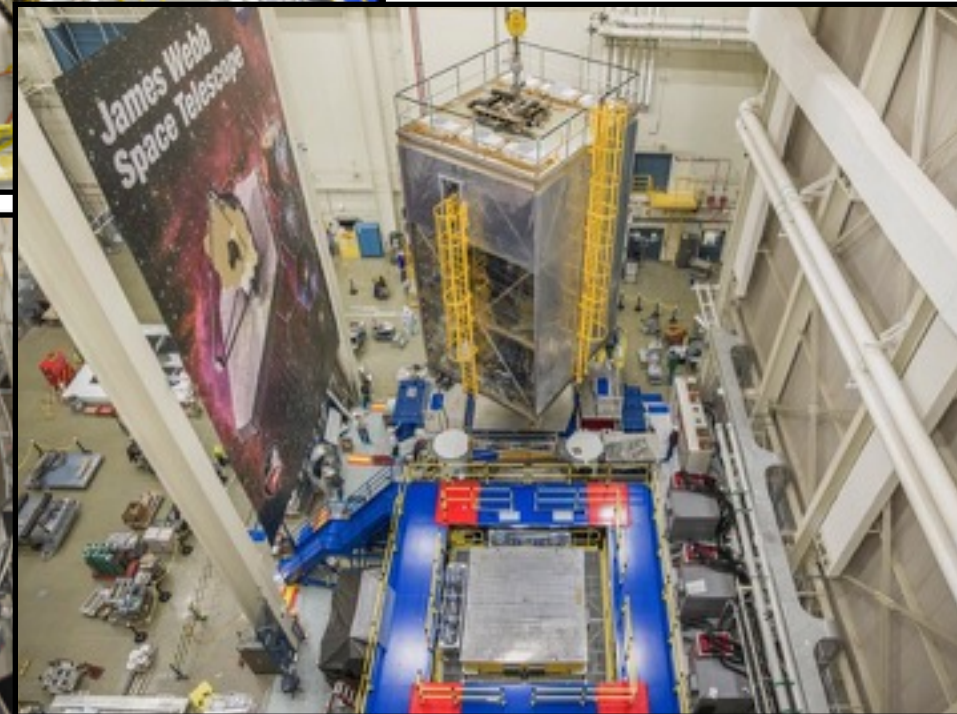
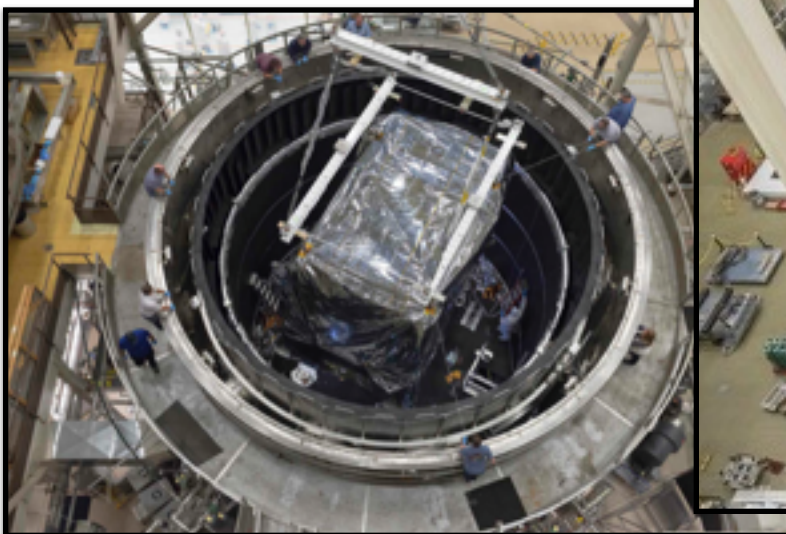
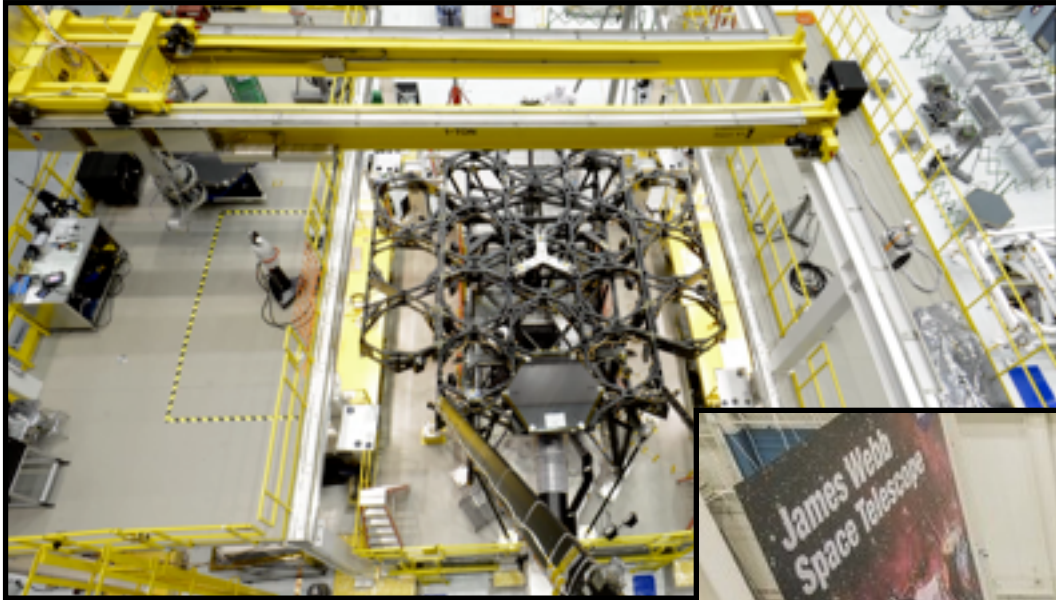


Comprehensive full observatory testing at JSC



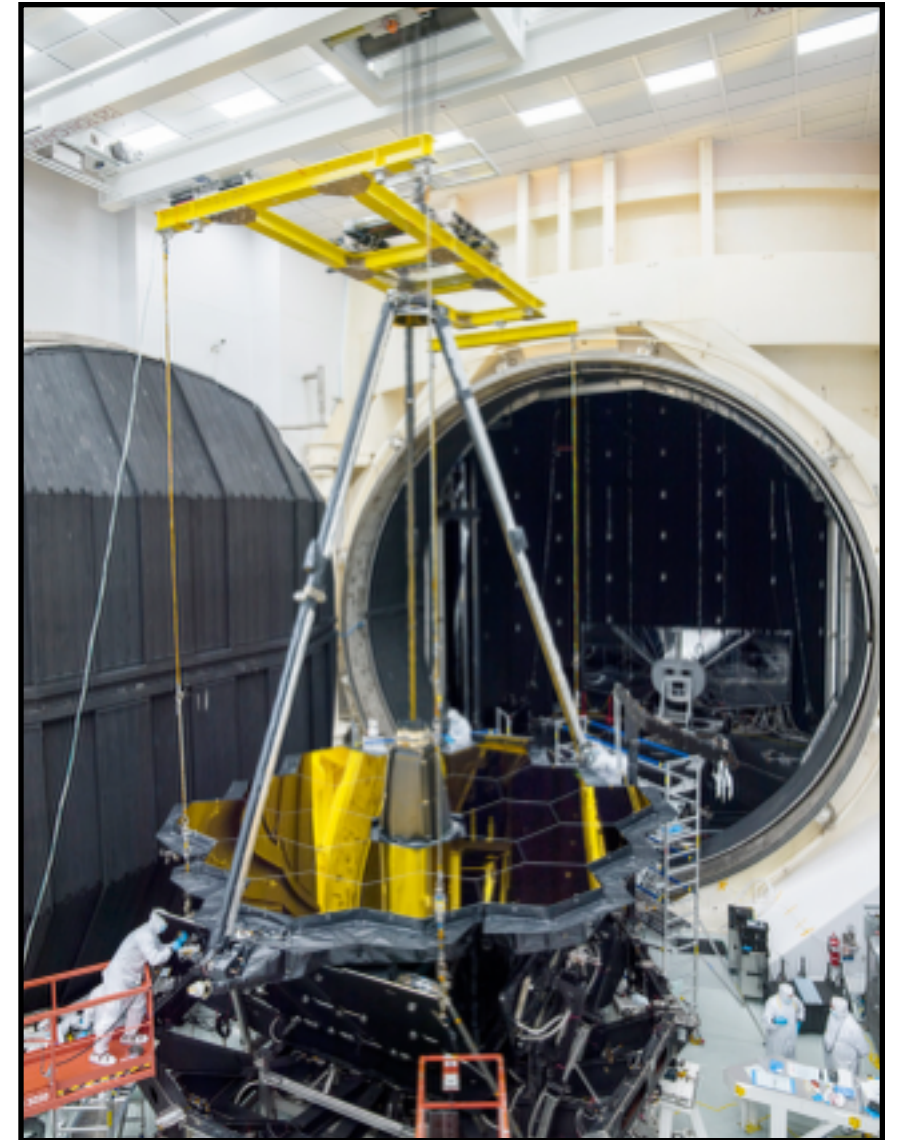


JWST Optical Assembly at Goddard Space Flight Center



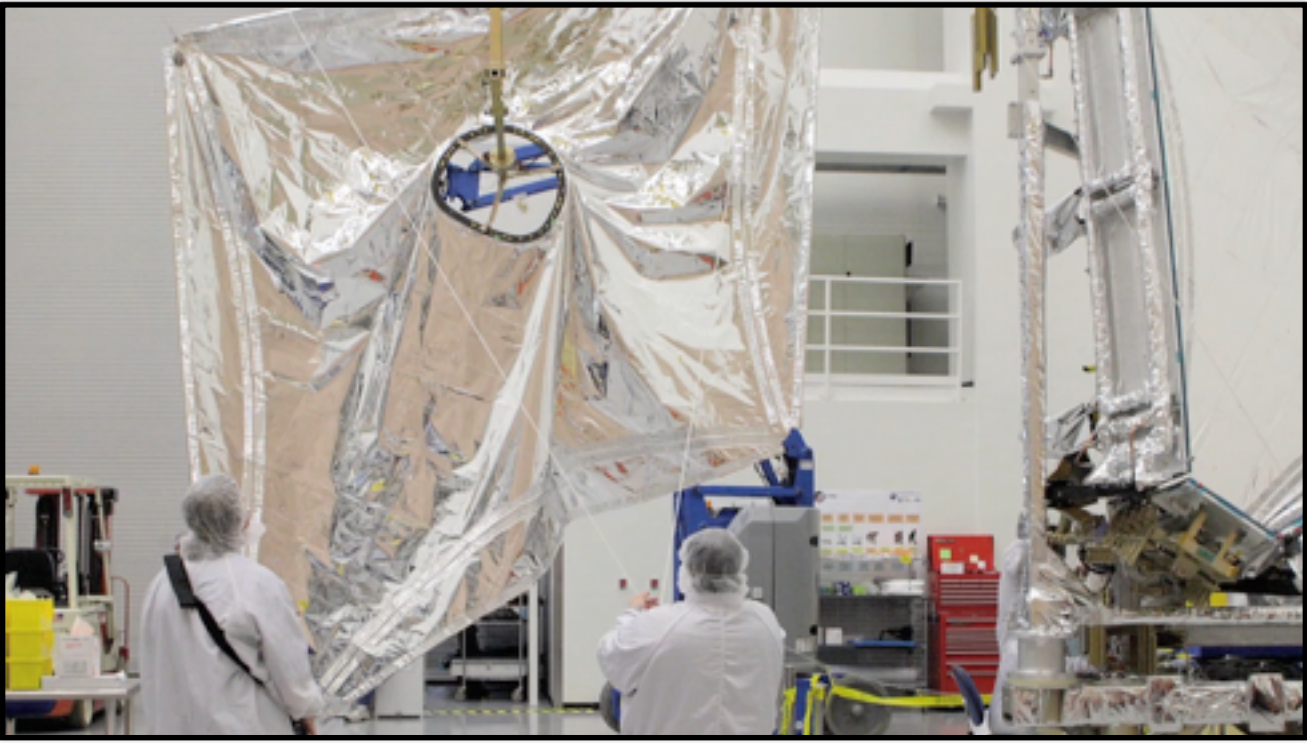


JWST is Now at Johnson Space Center





JWST Sunshield - Extreme Passive Cooling in Space



JWST's Tennis-Court-Sized Sunshield

- 70 foot, 5 layer structure
- Deployable technology
- Thermal protection from 400 deg F (hot side) to 185 deg below zero (cold side) (SPF = 1 million)

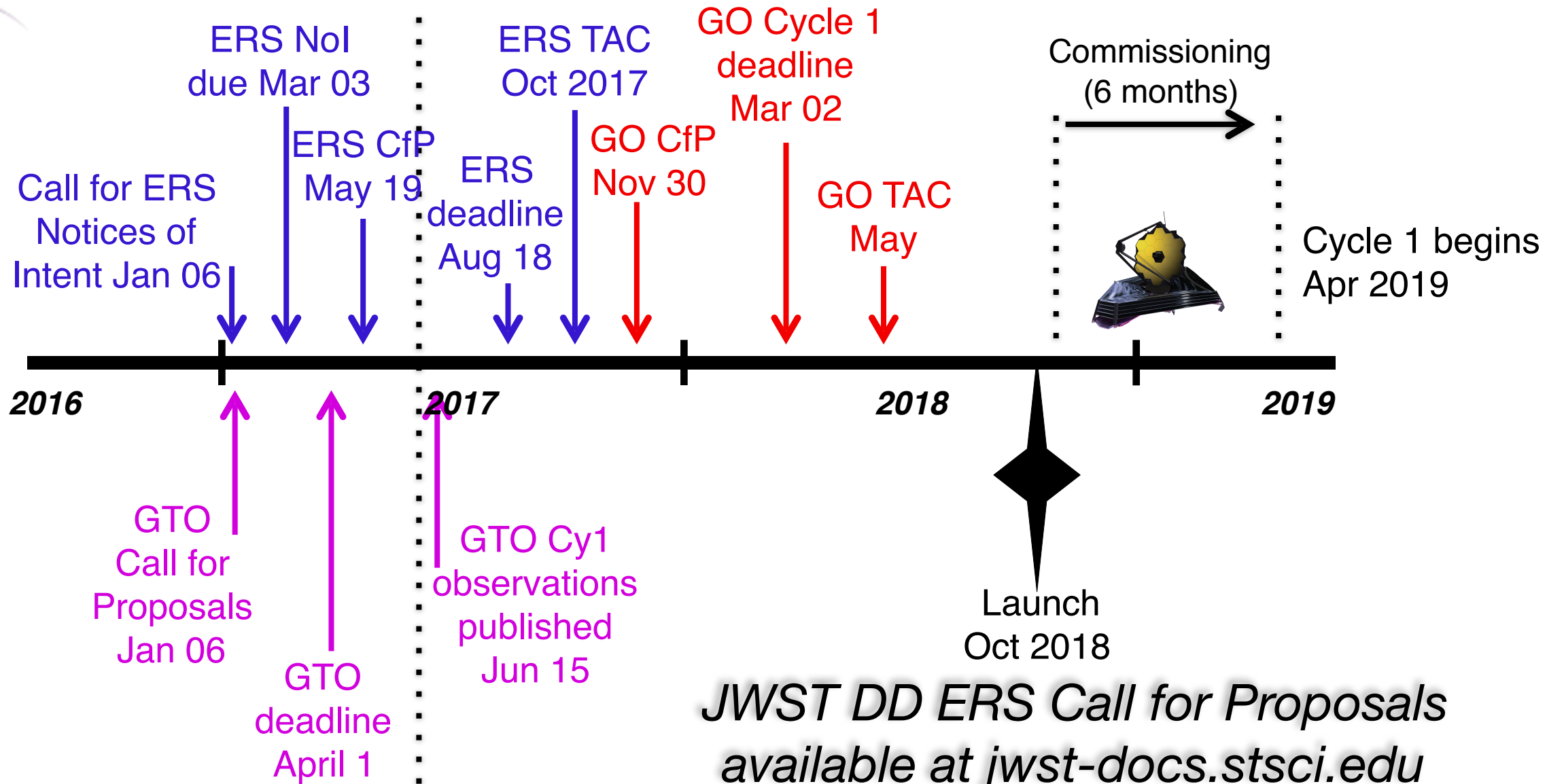


JWST Mission Operations Center at STScI





JWST Cycle 1 Timeline





This Week: Panels and TAC Task

- Focus on selecting the best science that can be done with Hubble
- Be aware of unconscious bias
- Review the posted criteria for judging proposals
- Leave the scheduling to us
- Enjoy the experience of shaping Hubble's future, and in so doing the future of astronomy as well



Thank you!