

# Large-Aperture Space Telescope (ATLAST)

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## Description and Objectives:

- Engineering design(s), science goals, and technology roadmap for a large-aperture (10+ m) UV/vis/IR observatory
- Operates from 0.1 to 2.5+ microns with suite of instruments broadly similar to those on HST
- Serviceable on orbit
- Goal to be selected by NRC as highest-priority major mission for the 2020s

## Key challenge(s)/Innovation:

- Overarching challenge is to design, develop, and operate this observatory at a cost that believable and acceptable.
- Essential to primary goal is a credible engineering design, technology readiness (TRL 5 – 6), and compelling science goals in the early 2020s.

## Approach:

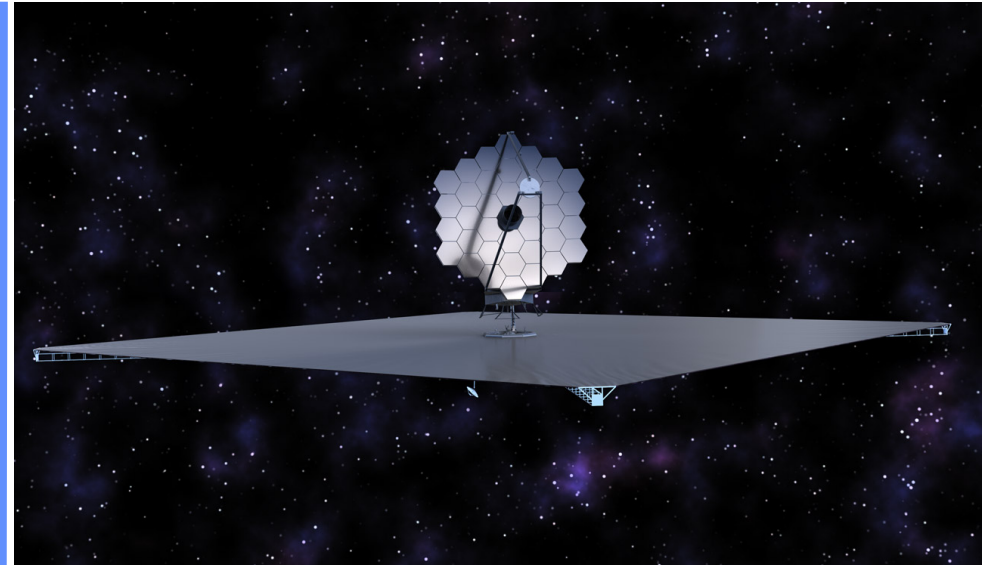
- Three parallel paths are being pursued by the team
  - Increasingly detailed engineering design supported by DR&T and partners at MSFC and JPL
  - Compelling science goals supported by IRAD and partners at STScI and JPL
  - Investment in key technologies via requested support from NASA SMD and STMD

## Application / Mission:

- NASA's major observatory to follow JWST and WFIRST/AFTA

## Collaborators:

- Significant participation from STScI, JPL, and MSFC



## Milestones and Schedule:

All ongoing:

- Detailed engineering designs with confirmation that they achieve priority science goals: an ongoing activity
- Detailed science goals, including expected performance of ATLAST: an ongoing activity

## Space Technology Roadmap Mapping:

- Primary Technical Area: TA 08
- Secondary Technical Area: TA 04, 07
- Additional Technical Area(s): None
- Applicable Space Technology Grand Challenge: N/A

## Technology Readiness Level:

- Starting TRL: varies from 3 – 6
- Anticipated Ending TRL: 5 – 6 by the early 2020s