



Johnson Space Center Overview

2021 NASA Small Spacecraft Forum

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JSC Overview

- Strong focus on crewed space exploration
 - Astronaut Office
 - Orion Program Office
 - ISS Program Office
 - Mission Control
- Primarily designs, develops, integrates, tests, and operates human-rated systems
- Small spacecraft interests:
 - Primarily revolve around human-related applications like free-flying in-space inspection



JSC and Small Spacecraft

- Previous small spacecraft
 - AERCam: 1997 free-flyer demo, follow-on cancelled prior to flight
- Current small spacecraft
 - Seeker 1: 2019 demo of incremental inspector development
 - R-1 through -4: 2021-22 high risk in-space inspection tech demonstration
- Capabilities
 - High performance GNC (especially prox ops and docking)
 - Autonomy, Robotics
 - (Hazardous) environmental testing (Tvac, vibe, shock, EMI)
 - Hardware-in-the-loop testing
 - Small, integrated propulsion systems
 - Systems integration
- Point of contact: Sam Pedrotty (Samuel.m.Pedrotty@nasa.gov)



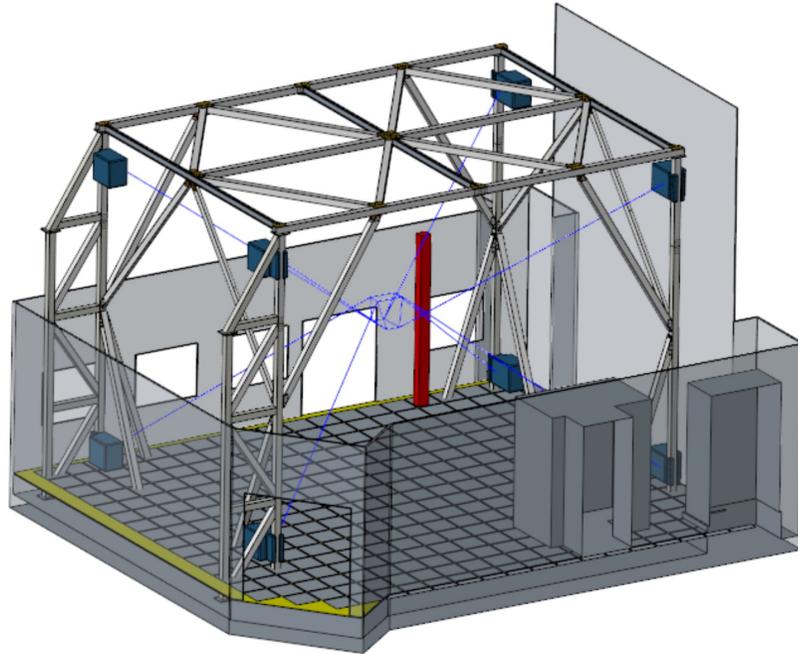
AERCam Sprint



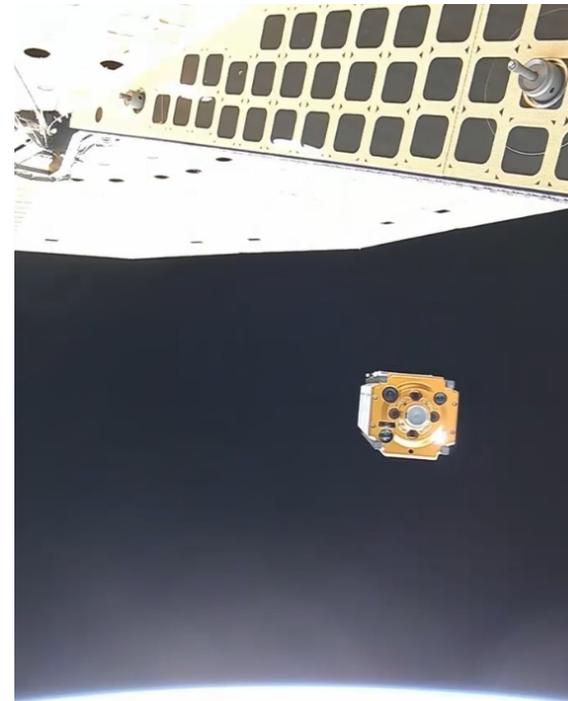
Mini AERCam



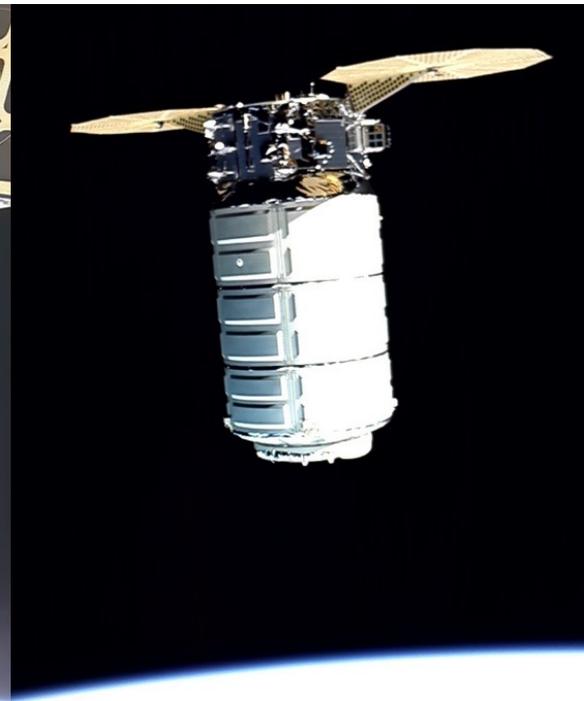
ROSIE 6DOF Platform



STAR 6DOF Facility
(operational 10/21)



Seeker 1 from Cygnus



Cygnus from Seeker 1