



NASA Langley Update 2017 and Beyond

**York County Board of Supervisors
May 16, 2017**



**Charles Cockrell, Director, Office of Strategic
Analysis, Communications, & Business Development
and
Michelle, Ferebee, Chair, NASA Langley's Centennial**

Langley Snapshot



Langley Impact: Virginia economic output of ~\$1.2b generating over 7,300 high-tech jobs

FY2017 Budget Estimate~\$877m
NASA Langley Budget~\$855m
External Business~\$22m
Workforce~ 3,400
Civil Servants~1,800
Contractors (on/near-site)~1,600
Infrastructure/Facilities	
156 Buildings764 acres
Replacement Value~\$3.6b



Workforce



Comprehensive Digital Transformation



Revitalization

Measurements Systems Lab



Ground Breaking April 11



The fourth building in Langley's revitalization plan will be a 175,000 SF energy-efficient facility with 40 modular research labs for electronics, lasers, clean rooms and instrumentation.

In December, a \$95.6M construction contract was awarded to W.M. Jordan Co. of Newport News, with 30% to 45% of contract value going to small businesses.

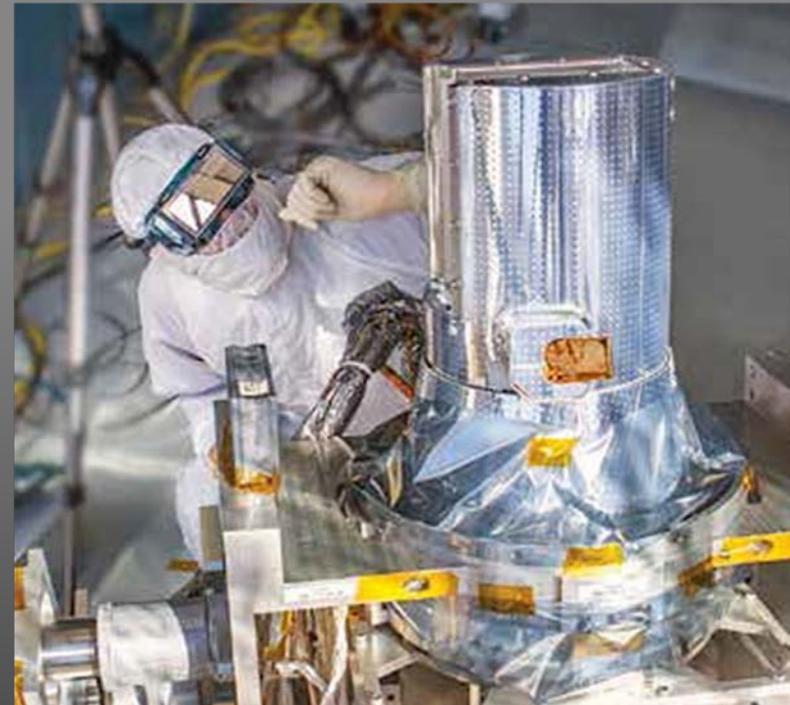
Construction on the world-class facility for research and development of new measurement concepts, technologies, and systems will begin this spring with completion expected in late 2019.



Earth Science Missions –SAGE III on ISS



Launched on SpaceX Falcon from historic pad 39A at Kennedy Space Center February 19, 2017.



SAGE III on ISS, which will measure ozone, aerosols, and gases in the Earth's atmosphere.

Aeronautics

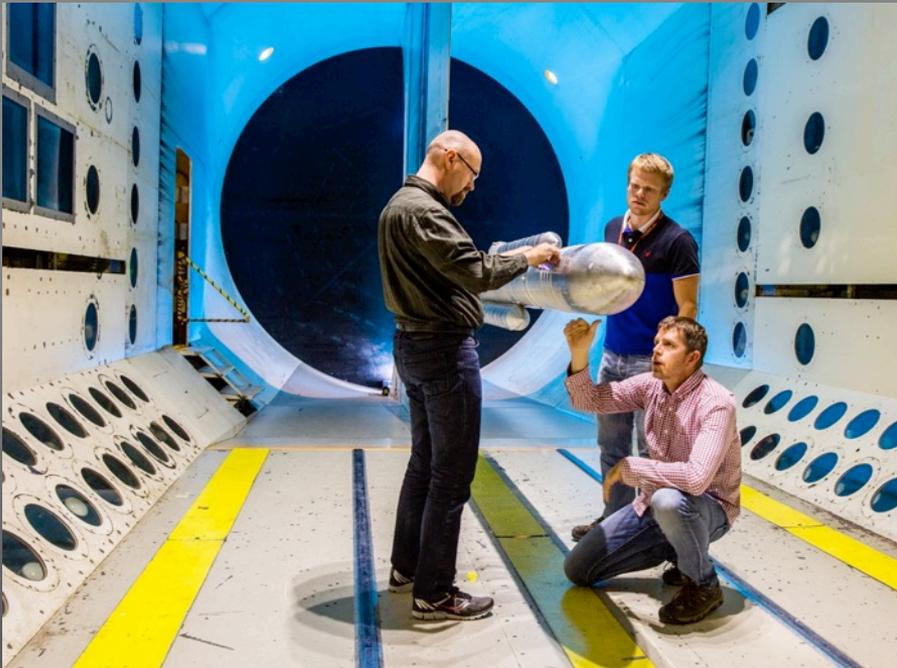


Boeing and NASA researchers tested a blended wing body model in Langley's wind tunnel. It's a step toward a crewed demonstrator for a future aircraft.



With 14 electric motors turning propellers integrated into a unique wing design, NASA's latest X-plane, the X-57 Maxwell, will test new propulsion technology for ultra-efficient future aircraft.

➤ Exploration



Engineers tested a 10-ft-scale model of NASA's Space Launch System in the Transonic Dynamics Tunnel at NASA Langley to understand how the rocket will perform in deep space missions.



In 2016, engineers at NASA Langley's Hydro Impact Basin completed a set of 10 drop tests that measured the forces the Orion space capsule will experience during a splashdown.

➤ Unmanned Systems and CERTAIN



NASA Langley is working directly with community leaders to help Hampton Roads emerge as a major player in the growing field of unmanned systems. Langley is providing technical expertise and serving as a catalyst for regional cooperation.



NASA Langley has set aside a remote section for testing unmanned aircraft systems. The goal is to use the entire center as an urban test site called CERTAIN (City Environment for Range Testing of Autonomous Integrated Navigation).

NASA Langley Centennial



NASA Art Exhibit

April 8 – June 25, 2017 | Peninsula Fine Arts Center

Maker Faire (Samuel P. Langley Day)

May 6, 2017 | Hampton Roads Convention Center

Centennial Tribute

May 18, 2017 | Ferguson Center

Fourth at the Fort Celebration

July 4, 2017 | Fort Monroe, VA

Langley Centennial Symposium

July 12 - 14, 2017 | Hampton Roads Convention Center

Langley Centennial Gala

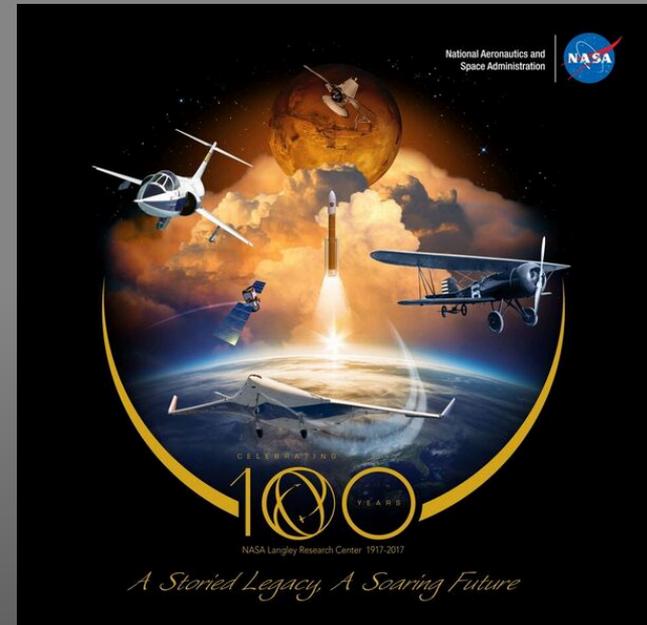
July 14, 2017 | Hampton Roads Convention Center

NASA Photography Exhibit

October 6, 2017 - March 11, 2018 | Chrysler Museum of Art

Open House & Centennial 10K

October 21, 2017 | NASA Langley Research Center



NASA Langley Centennial



PFAC hosts community day for NASA exhibit opening

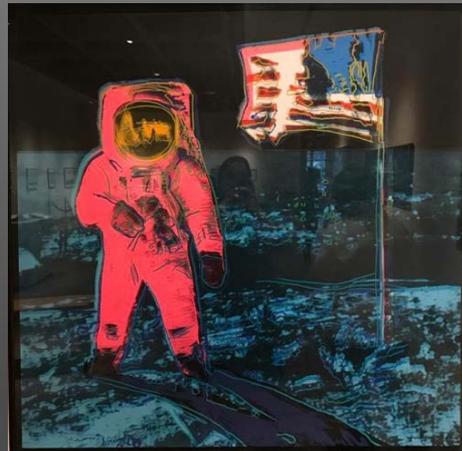
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(Danielle Jackson / Daily Press)

Wade Mickley and wife Karen Freidt of Newport News, both NASA employees and artists themselves enjoy the art on display at the Peninsula Center of Fine Arts on Saturday.



Margot Shetterly Colloquium
Hidden Figures author



Moonwalk 1, Andy Warhol
American (1927 – 1987)