



Virginia Spaceport Authority

Virginia Associations of Planning District Commissions
(VAPDC) Summer Conference

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CEO and Executive Director

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Background



- Virginia Spaceport Authority (VSA) is a political subdivision of the Commonwealth of Virginia responsible for developing aerospace activities
- VSA owns and operates the Mid-Atlantic Regional Spaceport (MARS)
- VSA headquarters are in Norfolk, but most employees work at MARS
- VSA is a tenant of NASA Goddard's Wallops Flight Facility and MARS is located there
- The spaceport is FAA licensed for vertical launches to orbit and conducts business with NASA through a Space Act Agreement and IDIQ contract
- Wallops Island Aerospace Cluster economic impact: \$1.5 billion

Launch Pads



Pad 0A



Pad 0B



Pad 0C

Pad 0A

- Liquid propellant pad
- Multi-user capabilities
- Accommodates small- and mid-class rockets
- Current customer is Northrop Grumman's Antares rocket
 - Hypergolic vehicle
 - 24 Hour payload late-load capability
 - Resupplies International Space Station (ISS)
 - Next mission: August 1, NG-19
 - Carries payloads up to 18,600 lbs.



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Pad 0B

- Solid fuel launch pad
- Launch pad from which Northrop Grumman launched its Minotaur class of vehicles (I, IV, V)
 - Capable of carrying payloads of:
 - Minotaur I: 1,280 lbs.
 - Minotaur IV: 3,825 lbs.
 - Minotaur V: 754 lbs.
- Accommodates small- and mid-class rockets



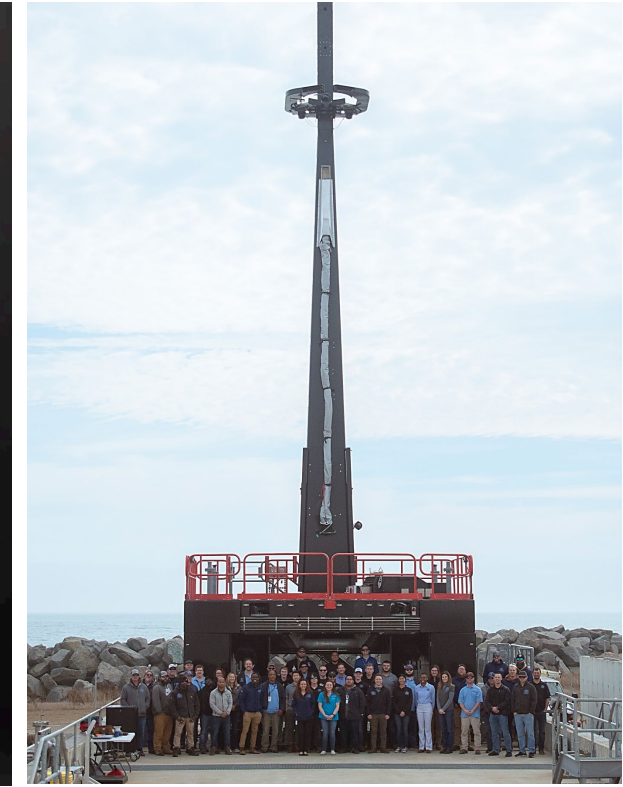


Pad 0C

- From groundbreaking to operational status in 11 months
- Liquid propellant pad
- Accommodates small-class rockets
- Rocket Lab's only U.S. launch site for its Electron rocket
 - Services payloads up to 661 lbs.



Rocket Lab's First Launch from Virginia



- First launch from U.S. soil for Rocket Lab
- Successful Electron Launch from Pad 0C on 1/24/2023 carrying Hawkeye 360 satellites that were built in Virginia
- First use of NASA's Autonomous Flight Termination Unit (NAFTU)
- First autonomous flight launched from MARS

Pad 0D

- New multi-use pad in development
- Considered launch pad of the future
- First customer is Rocket Lab's Neutron rocket
 - 40m/131 ft tall
 - Reusable
 - Designed for mega constellation deployment, deep space missions, and human spaceflight





Facilities

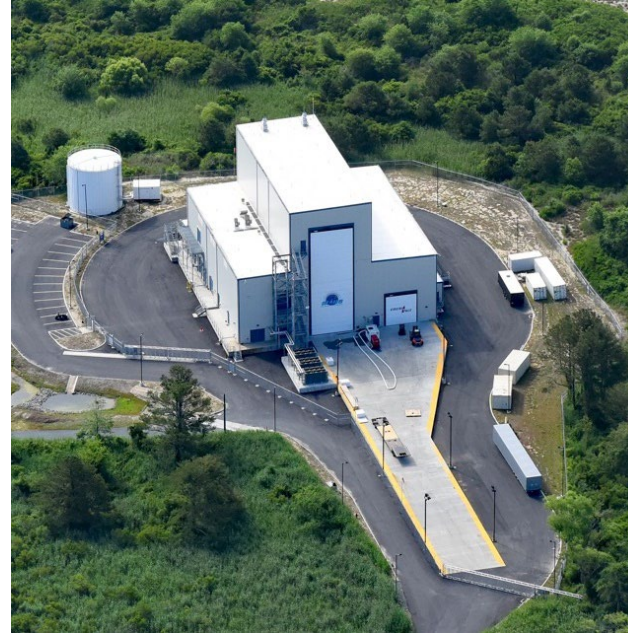
Integration and Control Facility

- Owned by VSA
- Leased to Rocket Lab
- Located in Wallops Research Park
- Integration space for multiple Electron launch vehicles
- Mission control room
- Office and customer space
- 9 miles to launch pad complex



MARS Payload Processing Facility (PPF)

- Newest PPF in the United States
- Can process multiple payloads simultaneously – from arrival to encapsulation
- Payload integration
- Payload fueling
- Stage integration
- Multiple segregated processing spaces



MARS UxS Test Range/UAS Airfield

MARS UAS Airfield Capabilities:

- 3000'x75' UAS Runway
- Concrete VTOL pad
- Special use airspace and frequency management
- 50' communications tower
- 95'x50' hangar with 70' tall rollup door
- Full power and communications suite
- Ready room



VSA STEM



Interns



K-12
Outreach



Special
Programs



- Hired full time professional educator to manage STEM program
- Career Fairs and School Visits
- MOU with Eastern Shore Community College
 - Advising on curriculum development
- University partnerships:
 - VT Collaboration
 - William and Mary
 - Norfolk State
 - ESCC
 - ODU
- 9 summer interns for summer 2023 program

VSA Workforce

- Our workforce manages end to end operations for launch customers.
- Spaceport operations, testing and construction expertise.
- Among MARS employees, 30% are women and 20% are former interns.



VSA's Significance to the Commonwealth and the Nation

- Economic Development in VA through Aerospace Industry
- Unique and Impactful Educational STEM Hub
- Assured Access to Space for National Security
- Wallops Island Aerospace Cluster economic impact: \$1.5 billion

ODU 2023 Economic Impact Study of the Wallops Island Aerospace Cluster*



- The economic impact of the Wallops cluster remained resilient despite significant headwinds including;
 - The decline in federal nonpayroll spending of 60% since 2016;
 - Shock of the COVID-19 pandemic.
- The Wallops Island Aerospace Cluster increased annual average employment in Virginia of 4,597 jobs.
- Jobs in the Wallops cluster paid more than 2 times the average of jobs in surrounding communities.
- Study revealed that the Wallops Island Aerospace Cluster had a direct positive impact on the Commonwealth of \$1.5 billion in 2023 dollars.
- Every \$1 appropriated for the Virginia Spaceport Authority increased annual average real industry output in Virginia by \$2.9 from 2018 to 2022.

**The Economic Impact of the Wallops Island Aerospace Cluster, Dragas Center for Economic Analysis and Policy, Old Dominion University, June 30, 2023*



Questions?



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