



Virginia Spaceport Authority

Roosevelt Mercer, Jr.
Major General, USAF (ret)
CEO and Executive Director

2023 VEDA Fall Conference

Things that make you go hmmm....



BE USELESS, SO NOBODY CAN USE YOU.

IG:ALYANABBASI123





Who we are

- VSA is a political subdivision of the Commonwealth of Virginia
 - Responsible for economic development, STEM, and promoting the aerospace industry
- 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
- 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



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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





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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

- Broken ground on new multi-use pad
- 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



Commonwealth Additional Direct Capital Spaceport Investments: \$176M to date

● 2004

Pad 0B
\$874K



● 2010

Pad 0A
\$86M



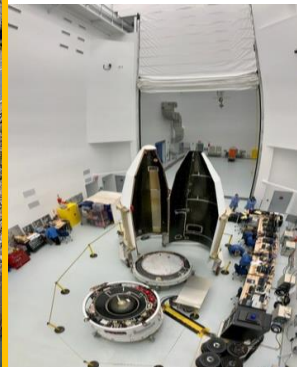
● 2016

Airfield &
Port
\$14.3M



● 2017

PPF
\$20M



● 2019

Pad 0C
\$5M



● 2020

ICF
\$5M



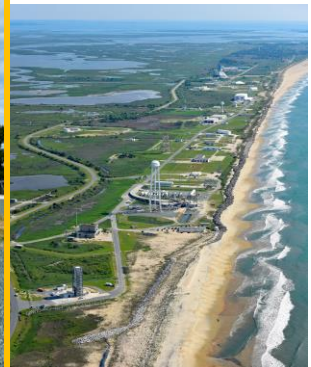
● 2021

AIT
\$15M

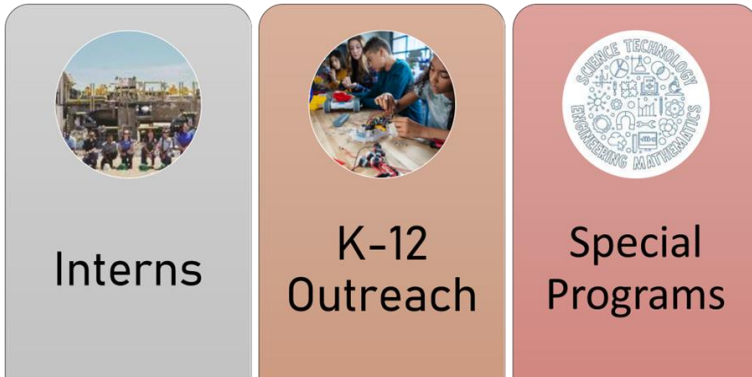


● 2023

Pad 0D
\$30M



VSA STEM



- 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.



An aerial photograph of the Wallops Island Aerospace Cluster. The image shows a coastal area with a sandy beach in the foreground, a body of water to the left, and a large industrial and research facility on the right. The facility includes several large white buildings, a tall water tower, and various antennas and structures. The background shows a mix of green fields and blue water.

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.

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

Our Impact

- Proven local, state, and federal support, commitment, and investments in spaceport expansion and development
- Federally recognized national space asset
- Catalyst for growing Eastern Shore space ecosystem
 - Leads to rapid development of national/Commonwealth space capabilities/services and jobs
- One of four public spaceports in the U.S. capable of vertical lift to orbit
- Provides full value chain of launch services
- Existing and growing talent pipeline

A group of people, including Governor Glenn Youngkin, are gathered outdoors at dusk, looking up at a large satellite dish. The scene is illuminated by a bright light source, possibly the setting or rising sun, creating a lens flare effect. The background shows the structure of the satellite dish and other equipment.

"Virginia Spaceport Authority truly lives up to its standard of excellence by maintaining, expanding, and elevating the best assured access to space in the nation."

Governor Glenn Youngkin

Questions?



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Facebook: **Virginia Spaceport Authority**



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