

AEROSPACE & DEFENSE REGIONAL ACTION PLAN

UPDATED NOVEMBER 2017

GOAL 1: Grow the Wallops Complex (NASA Wallops, Virginia Space, and Wallops Research Park) into the nation's spaceport-of-choice for access to space for the platform spectrum from nano/microsats to small satellites, return space vehicles through medium class orbital missions supporting the Nation's science, technology, national defense, and commercial objectives.

The future of the industry for U.S. Department of Defense, NASA, and commercial endeavors is small and medium class missions. The Eastern Shore of Virginia is not widely recognized as a center for aerospace and the existing assets could be better integrated to leverage our marketability and viability. SET provided data shows that Resource and Development is the highest performing industrial sub-sector in terms of the relative performance of the region as compared to the Commonwealth of Virginia and nation at-large.

Objective A: Create a single, dedicated (funded) Wallops Complex marketing function to both promote Wallops Complex and supporting Eastern Shore regional capabilities i.e. (Cape Charles Port and other transportation infrastructure) while assisting potential customers to develop their concept of operations and business case elements.

Strategy	Responsibility	Key contact	Timeline		Activity Outcome/ Output Measurements	Progress Status
Establish a regional "consolidated" marketed management structure and strategy	<u>Primary:</u> Wallops Island Regional Alliance, Wallops Research Park, Accomack-Northampton Planning District Commission <u>Secondary:</u> Aerospace & Defense Working Group Partners	Peter Bale (Wallops Island Regional Alliance); Julie Wheatley (Wallops Research Park); Curt Smith (Accomack-Northampton Planning District Commission)	Short Term	June 2016 – June 2018	Develop consolidated marketing strategy and materials - WIRA internal committee developing strategy. Met with VA Economic Development Partnership but no progress to date. Discussions held around GOVa but no proposal submitted for 2017. - Target approx. \$200k for marketing strategy and website (WIRA could hire/manage consultant with Wallops partners providing supplementary info) - Include approx. \$7k for development of promotional video for targeted marketing for unmanned systems	Ongoing
			Mid Term	June 2018 - June 2019	Gain approval for marketing strategy from all principals	Pending completion of short term strategy
Implement a consolidated marketing strategy and hire a marketing professional to represent and recruit for the Wallops Complex <i>The WIRA organizations are individually promoting the ESVA, but a consolidated strategy is</i>	<u>Primary:</u> Wallops Island Regional Alliance, Wallops Research Park, Accomack-Northampton Planning District Commission <u>Secondary:</u>	Peter Bale (Wallops Island Regional Alliance); Julie Wheatley (Wallops Research Park); Curt Smith (Accomack-Northampton)	Short Term	January 2018	Develop draft business plan outline to include hiring of a marketing professional	Julie has an inventory and worked with VEDP to develop a program budget and will work with Peter and Curt to establish an outline
			Short Term	April 2018	Identify funding source or mechanism for developing consolidated marketing strategy.	Pending completion of short term strategy

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<p><i>needed. WIRA does not have the budget to fund this, but the Working Group Partners will seek funding to have the strategy completed or attempt to develop the strategy "in-house" over time.</i></p>	<p>Aerospace & Defense Working Group Partners</p>	<p>Planning District Commission)</p>	<p>Mid Term</p>	<p>July 2018</p>	<p>Deliver a consolidated Regional Business Plan for the area. Increased activity for the local regional communities attend trade shows, compile print media secure prime marketing opportunities. Output is measured by an economic impact study that can be compared against historical data that shows increased tax revenue via employment tax figures for Accomack County</p>	<p>Pending completion of short term strategy</p>
			<p>Mid-Long Term</p>	<p>January 2019</p>	<p>Hire marketing professional to represent and recruit for the Wallops Complex</p>	<p>Pending completion of mid-term strategy</p>

Objective B: Secure funding of Class A flexible and configurable office and technical/industrial space to support campaign mode operations. Build a flexible configurable building for "campaign mode" company operations and workforce development training and certification programs in the Wallops Research Park.

<p>Build Class A office, laboratory, and flex Space</p>	<p><u>Primary:</u> Wallops Research Park (Facilitator) <u>Secondary:</u> Accomack-Northampton Planning District Commission</p>	<p>Julie Wheatley, Accomack County</p>	<p>Short/Mid Term</p>	<p>18 months from when a lease is signed</p>	<p>Fill the 211 acres of the Wallops Research Park with a suitable mixture of tenants. - Orbital ATK in need of building space for support businesses - DOD contractors in need of building space</p>	<p>Ongoing - Lead emerging for growth</p>
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Objective C: Create a state or regional level competitive launch financing and effective local and state business incentives.

<p>Establish a regional incentive strategy</p>	<p><u>Primary:</u> Accomack-Northampton Planning District Commission <u>Secondary:</u> Virginia & Maryland Legislators, Accomack & Northampton Counties, Town of Chincoteague, Virginia Economic Development Partnership</p>	<p>Curt Smith (Accomack-Northampton Planning District Commission)</p>	<p>Short Term</p>	<p>March 2018</p>	<p>Establish a working group of regional legislators (VA & MD) and stakeholders to discuss and pursue regional incentive strategy development (A-NPDC to coordinate meetings)</p>	<p>Proposal developed to be submitted to MD legislation for 2018 session. MD legislators and VA Governor at Wallops for UMS demo.</p>
		<p>Rich Morrison (Accomack County), Northampton County JIDA Representative, Stephen Moret (Virginia Economic Development Partnership)</p>	<p>Short Term</p>	<p>July 2016 – March 2018</p>	<ul style="list-style-type: none"> • Include options for incentive programs that will attract aerospace and technology-related business to the region. • Develop an interstate compact to authorize Celestial Revenue Bonds to finance the launch of spacecraft to be repaid with generated revenue over the life of the spacecraft • Re-establish HUB Zones in Accomack and Northampton Counties 	<p>Pending completion of short-term strategy</p>

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Objective D: Attract new additional space launch programs or missions to fly from the Wallops Complex to the rate of 6-10 major launches per year by 2021.

Pursue the basing of next-generation launch systems at the Wallops Complex.	<u>Primary:</u> Virginia Space <u>Secondary:</u> Wallops Island Regional Alliance, NASA Wallops	Dale Nash (Virginia Space), NASA Wallops New Business Office	Short Term	July 2018	<ul style="list-style-type: none"> Integrate this objective as a principle marketing objective for the Marketing Strategy to be developed under Objective A. Conduct vendor tours of Wallops Complex capabilities Wallops Complex to host LEO Air Launch demonstration missions in 2018, 2019, and 2020 by one or more providers. Permanent availability of nano/microsatellite Air Launch support capability from WRP established, ideally with carrier aircraft based here. 	Ongoing - Vector for 3 microsatellite launches in 2018 with more to come. Still need to work as group to incorporate this strategy into Objective A
Develop dedicated launch and other end-to-end mission support capabilities for a variety of small launch systems	<u>Primary:</u> Virginia Space <u>Secondary:</u> NASA Wallops	Dale Nash (Virginia Space), NASA Wallops	Short Term	October 2018	<ul style="list-style-type: none"> Integrate this objective as a principle marketing objective for the Marketing Strategy to be developed under Objective A. Identify funding opportunities to develop the capabilities. 	Ongoing - Still need to work as group to incorporate this strategy into Objective A

Objective E: Develop additional commercial support infrastructure necessary to support air-launch providers, private-sector flight test operations (including drones), and other launch and recovery missions, including, for example, fixed base operators providing fueling, avionics, airframe & powerplant maintenance, repair & overhaul to fully utilize Wallops Research Park and Accomack County Airport tarmac capacities by 2021.

Recruit Fixed Base Operator (FBO)	<u>Primary:</u> Wallops Research Park, Virginia Space, Wallops Island Regional Alliance <u>Secondary:</u> Aerospace & Defense Working Group Partners	Julie Wheatley (Accomack County), Dale Nash (Virginia Space), Peter Bale (Wallops Island Regional Alliance)	Short/Mid Term	Dec. 2017	Request made for facility	Ongoing – Request made but WRP not selected for facility location. Next steps: Explore development of a plug and play incubator. Explore funding opportunities for upgrade to ground station
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GOAL 2: Increase technology development, manufacture, and operations for unmanned aerial, underwater, and ground based systems (unmanned systems (UMS)) in the Eastern Shore of Virginia region. This shall include the full spectrum of activities from design through manufacture, pilot testing, test, and operations. The goal would be to increase the number of local jobs and operational hours by 25% each year from a base year of 2016.

The challenge has been to attract technology education partners to the Eastern Shore of Virginia for unmanned systems testing in all three domains. It is important to achieve this goal to support Commonwealth invested Infrastructure developments, of both the Wallops Research Park and the UAS runway. The area needs to value add to these investments and create return on investments at both state and county levels. This will increase activity at the NASA Wallops Flight Facility and raise awareness of the unique capabilities and the wide variety of opportunities that exist. Successful implementation of this goal will stimulate the economy by driving high-tech educated jobs into the employment pipeline.

Objective A: Partner with other regions within the Commonwealth to provide comprehensive end to end government and commercial unmanned systems capabilities.

Strategy	Responsibility	Key Contact	Timeline	Activity Outcome/Output Measurements	Progress Status	
Partner with the Hampton Roads Economic Development Alliance. Attract a local Virginia university with strength in this area (i.e. Virginia Tech). Strengthen relationship with the Virginia Institute of Marine Science and other institutions as pertains to sea coast erosion and the use of unmanned air and sea vehicles.	<u>Primary:</u> Virginia Space, Wallops Island Regional Alliance <u>Secondary:</u> Accomack County, Accomack-Northampton Planning District Commission	Dale Nash (Virginia Space), Peter Bale (Wallops Island Regional Alliance)	Hampton Roads Economic Development Alliance			
			Short Term	180 days	<ul style="list-style-type: none"> MOU between Accomack County as a member Attract 1 new business in sector to demonstrate at the NASA Wallops Attract 1 new business to area permanently 	<ul style="list-style-type: none"> Hampton Roads Economic Development Alliance 0% NASA Langley 40% WIRA has been invited to a new ESVA Chamber Consortium,
			Virginia Tech			
			Short Term	120 days	<ul style="list-style-type: none"> Fly at the new UAS runway with earth science payload Identify and pursue use of the UAS runway on an ongoing basis as a paying tenant Explore potential opportunity for collaboration with Agriculture Research & Extension Center in Painter to assist with research 	Ongoing – Need to contact VT AREC to discuss potential collaboration
Virginia Institute of Marine Science/Randolph-Macon College/University of Delaware						
Short Term	90 days	<ul style="list-style-type: none"> Develop and submit underwater UAS proposal to the Mid-Atlantic Coastal Research Institute Establish budget requirement Perform routine ongoing ocean measurements at Wallops coast. 	Ongoing –UMS demo held in Fall 2017. Multiple coastal resilience proposals utilizing UMS submitted and developing			

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Objective B: Attract commercial UAS companies for short term and permanent tenant status.

Develop a variety of concepts or operations tailored to attract UMS companies to the Wallops Complex	<u>Primary:</u> Wallops Research Park <u>Secondary:</u> Virginia Space, Wallops Island Regional Alliance	Julie Wheatley (Accomack County), Peter Bale (Wallops Island Regional Alliance)	Short Term	Oct. 2017	<ul style="list-style-type: none"> Increasing number of companies using Wallops Complex facilities on a more frequent basis in campaign mode Permanent complany facilities at Wallops Complex State funded incubator facility to the Wallops Research Park to attract business to operate as a return on investment opportunity for Virginia to attract all as mentioned to become small footprint tenants to the region 	Sentinel Robotic Solutions located in Wallops. Other potential developments ongoing.
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GOAL 3: Develop and market two research programs to increase regional coastal resilience by 2020.

With over \$1 Billion in federal and state infrastructure located within several meters of sea level on Wallops Island, understanding the fundamental coastal processes occurring in the region is essential to the long-term viability of the Wallops Complex. When equipped with the best available scientific information, facility managers will be able to adjust their respective management strategies so as remain viable in the face of climate change. In turn, the economic benefits made possible by the Complex's mission success will continue to serve the region for years to come. Furthermore, the unique characteristics of the Wallops Complex - including its coastal location, restricted airspace, and runway infrastructure - coupled with NASA's commitment to making the Wallops Island shoreline a "living laboratory" – make the area an ideal testbed for development of UMS-based sensors. Demonstrated success in this line of business will not only increase regional economic inputs including meals and transient occupancy but could also spur UMS companies' capital investments in the area.

Objective A: Deploy a network of permanent and semi-permanent oceanographic sensors within the Assateague-Wallops-Assawoman multi-island system.

Strategy	Responsibility	Key Contact	Timeline		Activity Outcome/Output Measurements	Progress Status
Secure funding for Phases I and II of Integrated Barrier Island System project	<u>Primary:</u> NASA Wallops <u>Secondary:</u> Mid-Atlantic Coastal Resiliency Institute partners	Josh Bundick, NASA Wallops	Short Term	2016-2018	1) Research money spent in region 2) Number of sensors and instruments in the on-shore, off-shore and near-shore environment	Proposal development - No update for November 2017
Complete Phases I and II of Integrated Barrier Island System project	<u>Primary:</u> NASA Wallops <u>Secondary:</u> Mid-Atlantic Coastal Resiliency Institute partners	Josh Bundick, NASA Wallops	Mid Term	2018-2020	1) Research money spent in region 2) Number of sensors and instruments in the on-shore, off-shore and near-shore environment	Pending completion of short-term strategy

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Objective B: Demonstrate the utility of both aerial and underwater UMS for collecting high resolution, repeatable, topographic and shallow-water bathymetric datasets.

Secure funding for Phases I and II of Integrated Barrier Island System project	<u>Primary:</u> NASA Wallops <u>Secondary:</u> Mid-Atlantic Coastal Resiliency Institute partners	Josh Bundick, NASA Wallops	Short Term	2016-2018	1) Research money spent in region 2) Number of UMS flight and/or underwater hours	Proposal development – coordination with US Army Corps for support of project
Complete Phases I and II of Integrated Barrier Island System project	<u>Primary:</u> NASA Wallops <u>Secondary:</u> Mid-Atlantic Coastal Resiliency Institute partners	Josh Bundick, NASA Wallops	Mid Term	2018-2020	1) Research money spent in region 2) Number of UMS flight and/or underwater hours	Pending completion of short-term strategy

Objective C: Market the region as a testbed for conducting UMS-based coastal research.

Develop marketing materials	<u>Primary:</u> NASA Wallops <u>Secondary:</u> Mid-Atlantic Coastal Resiliency Institute partners	Josh Bundick, NASA Wallops	Short/ Mid Term	On-going during 2016-2020	Number and types of marketing materials developed	In development – No update for November 2017
Deploy marketing representatives at industry and academic venues	<u>Primary:</u> NASA Wallops <u>Secondary:</u> Mid-Atlantic Coastal Resiliency Institute partners	Josh Bundick, NASA Wallops	Short/ Mid Term	On-going during 2016-2020	Number of industry/academic gatherings attended	In development - No update for November 2017