

VIPC | VIRGINIA INNOVATION
PARTNERSHIP CORPORATION
Connecting Innovators with Opportunity



Virginia
**Unmanned Systems
Center** at VIPC



Who are we?

- The operating non-profit of the Virginia Innovation Partnership Authority (VIPA).
- Formed in 1985 to support the Commonwealth's vision for the expansion of innovation, opportunity, and job creation here in Virginia
- Creates technology-based economic development strategies to accelerate innovation, imagination, and the next generation of technology and technology companies
- Through commercialization and seed funding, VIPC helps entrepreneurs launch and grow high-growth technology companies and create high-paying jobs for the future
- Helps facilitate national innovation leadership and an accelerated rate of technology adoption through partnerships with innovative technology start-up companies, ecosystems, and advanced technology consumers

Planning for the Future of Low-Level Airspace



Advanced Air Mobility Test Sites



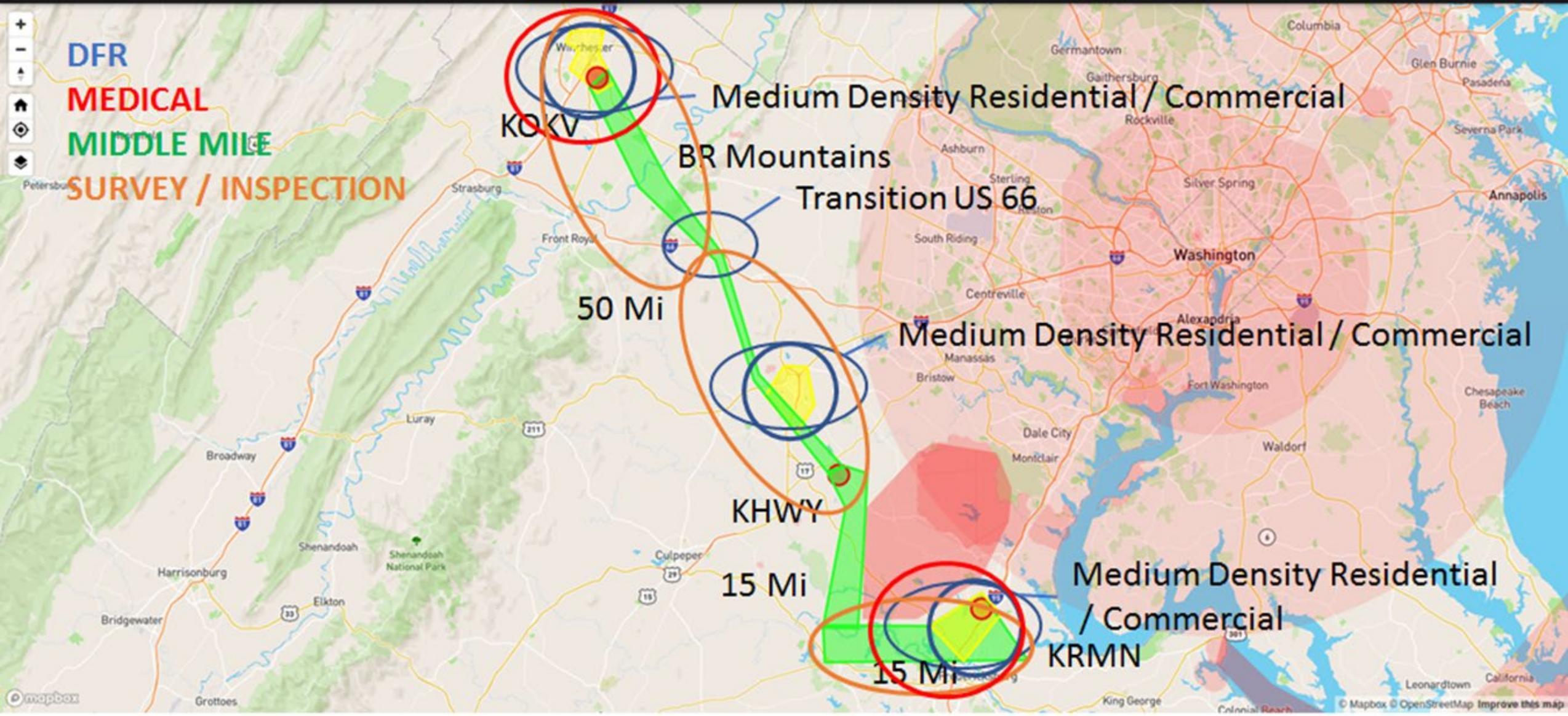
- Item 422 #1c
- Transportation
- Department of Aviation
- Language

- Page 478, after line 4, insert:
- "G. Out of the appropriation for the Commonwealth's Development Opportunity Fund, as established in § 2.2-115, Code of Virginia, provided in Item 101 Paragraph A. of this act, \$1,000,000 the first year shall be transferred to this item to support the development of an Advanced Air Aviation Test Site. The Department, in cooperation with the Virginia Innovation Partnership Authority, shall work with the industry to identify the optimal location or locations and uses of these funds."

- _____
- Explanation
- (This amendment provides \$1.0 million from the Commonwealth's Development Opportunity Fund in fiscal year 2025 to support the development of an Advanced Air Aviation Test Site in the Commonwealth.)



Examples of Equipment to be Installed for the Pilot Project



According to the 2023 Virginia AAM Economic Impact Study, the economic impact and benefits to the Commonwealth of Virginia by the AAM industry (through 2045) will include:

- Generate \$16 billion in new business activity and related stimulus, in part by integrating AAM vehicle and related manufacturing into the state.
- Add 10% or more to the growth of Virginia's existing aerospace sector.
- Produce \$2.8 billion in local, state, and federal tax revenues.
- Create over 17,000 new full-time aerospace industry and other jobs in the Commonwealth.
- Bring employment and educational opportunities to all regions of the Commonwealth, including underserved and economically challenged areas.



Economic Viability - Locally

- **Drone as a First Responder:** Can demonstrate cost savings through **dispatch reduction**, fulfilling mission need without need to add personnel, **reduced response times and better intel** result in improved health, fire, and police outcomes.
- **Emergency Medical / Whole Blood Delivery:** **Faster first-on-scene time** with immediate care items **reduces hypoxic time, improving patient outcomes**; delivery to EMS personnel on-scene improves patient stabilization at scene of trauma during the “golden hour”; improved patient stabilization and condition **improves overall patient outcomes and reduces downstream services need, reducing overall medical cost.**
- **Disaster Recovery/Assessment:** Better manage and deploy scarce resources post-event to avoid “false alarm” dispatches and **ensure resources are going where they are needed most. Saves lives, reduces waste and returns infrastructure to service faster.**
- **Infrastructure Inspection:** Proactive, automated inspection of infrastructure allows for an overall higher level of infrastructure awareness and maintenance due to both limited personnel and **reduced risk of harm to personnel, resulting in lower cost of maintenance, lower infrastructure downtime, and reduced risk of catastrophic failure.**
- **Commercial Operations:** Delivery of food, supplies, medicines, repair parts, tools, etc.



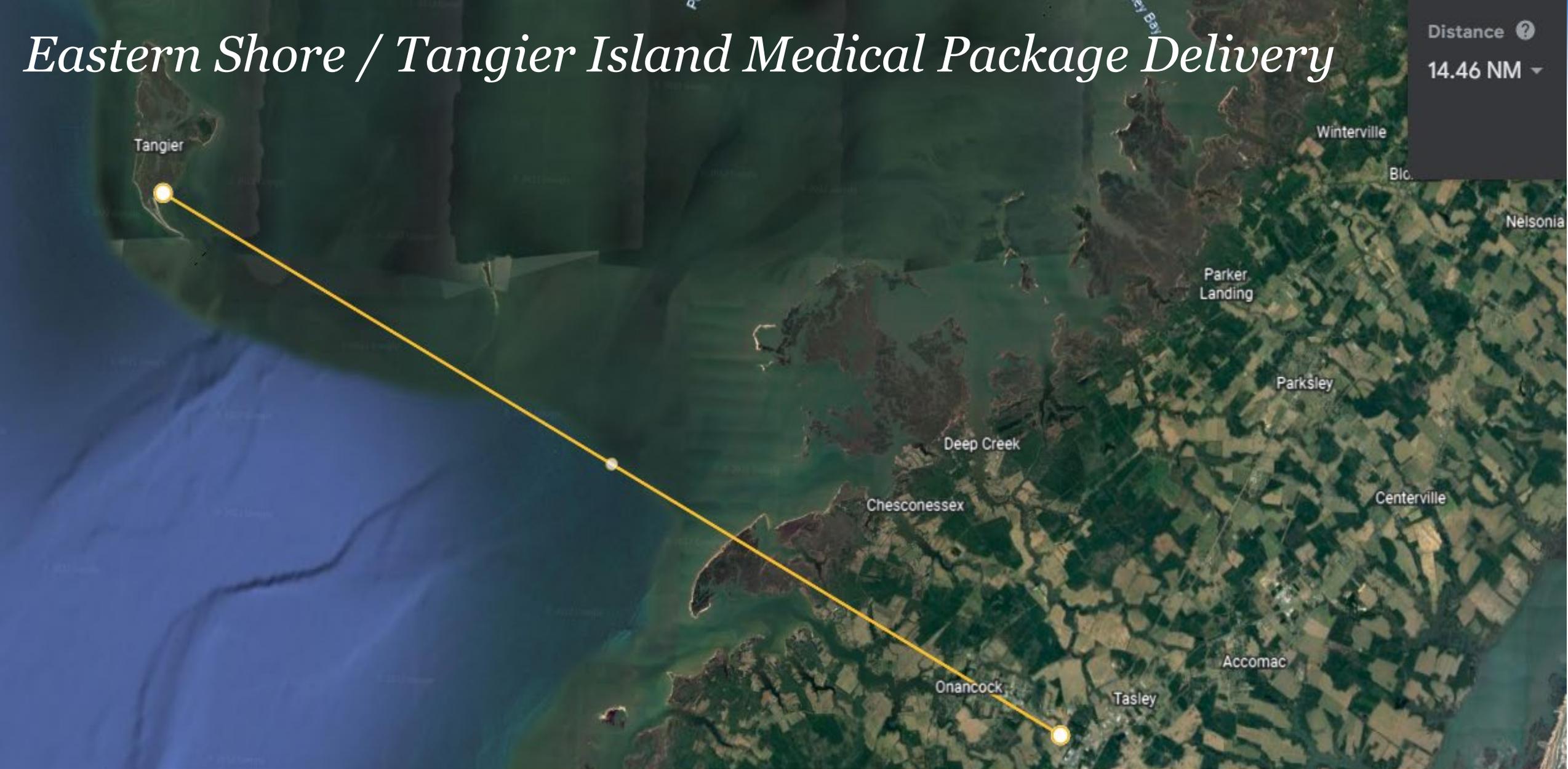
Virginia's National Leadership

- Virginia founder of AAM Multistate Collaborative
- Virginia leading multistate MOU
- Virginia part of leadership team for eIPP
- Virginia model gaining national traction
 - Adopted in PA, OK, TX, CA, OH
- PA and OK developing statewide pilot investment programs based on Virginia Model



Eastern Shore / Tangier Island Medical Package Delivery

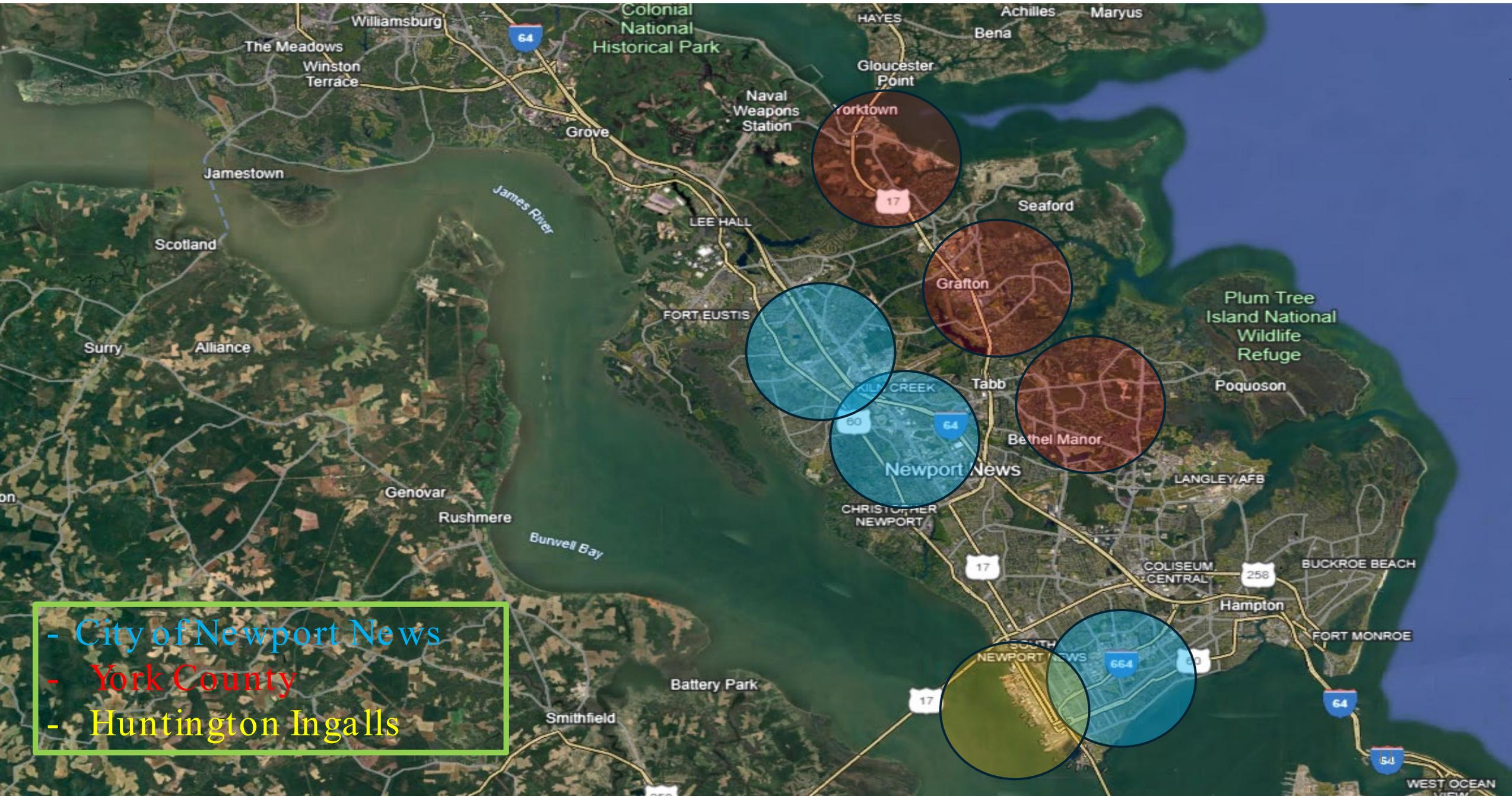
Distance ?
14.46 NM



RIVERSIDE

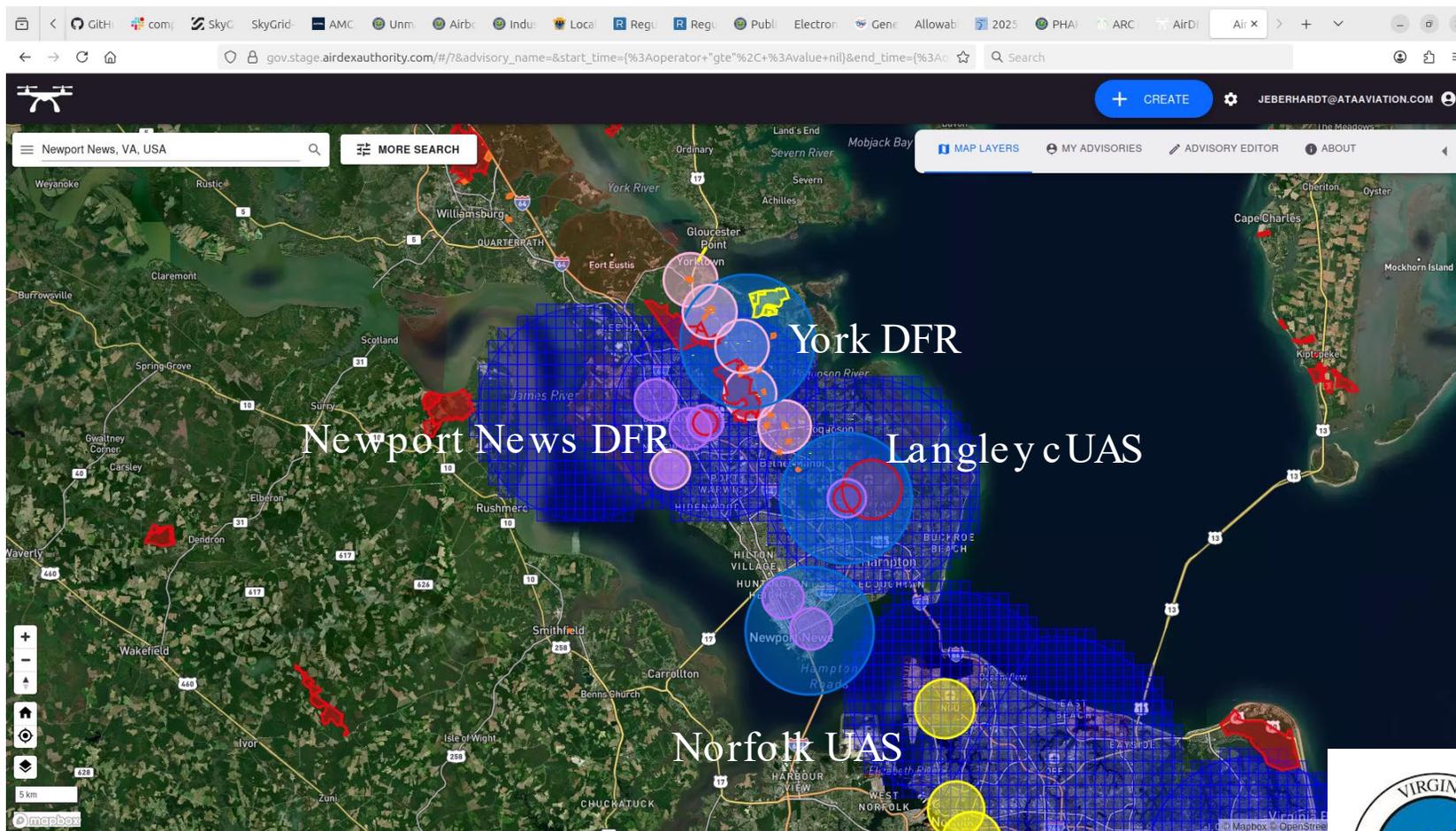


Public Safety Drones as First a Responder on the Virginia Peninsula



- City of Newport News
- York County
- Huntington Ingalls

Hampton Roads Service Volume



Joint Base Langley - Eustis

- VIPC – LAFB ACC partnership
- Sensor placement for DFR, AAM, etc. are also of benefit to JBLE
- Secure sensor data sharing with DoD (JBLE and others)
- Validation of sensor data acquisition (UAS flight detection testing)
- Additional sensor deployment in secondary areas to fill in gaps (funding dependent)
- Proof of concept for potential adaptation at other DoD facilities



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR COMBAT COMMAND
JOINT BASE LANGLEY-EUSTIS VA

9 December 2024

MEMORANDUM FOR DAVID IHRIE, VIRGINIA INNOVATION PARTNERSHIP CORPORATION (VIPC)

FROM: HQ ACC/ST
205 Dodd Boulevard
Langley AFB, VA 23665

SUBJECT: Letter of Support for Increased Air Surveillance Data Sharing

As the Scientific Advisor to the Commander, Air Combat Command, my office has been engaged with a variety of nascent airspace monitoring technologies and processes, especially those related to Advanced Air Mobility (AAM) and Small Unmanned Aerial Systems (sUAS), building data pipelines for air surveillance and law enforcement engagement authorities in support of commercially driven AAM concepts and technologies. In addition to VIPC, we have also been working with NASA, the National Aviation Research and Technology Park (NARTP), the Association for Unmanned Vehicle Systems International (AUVSI), and the North Dakota Grand Sky consortium.

We are aware of the work VIPC has been leading on a pilot basis to design, install and validate civilian airspace awareness sensors in the vicinity of some of our installations. We understand these capabilities include not only the sensors, but also zero trust security features such as edge device identity management and secure networking elements that support secure information sharing. This capability, as it matures, could provide useful information to supplement data we already collect in support of airspace awareness and DoD mission sets. To this end, we are authoring a Concept of Operations (CONOPs) for the utilization of AAM data on the Virginia Flight Information Exchange (VA-FIX) as an "early warning" capability specifically to help identify and correct non-compliant sUAS. This CONOPs will also detail appropriate communication mechanisms between military installations and local law enforcement to report and track non-compliant air vehicles and foster potential prosecution.

We are keenly interested in the maturation of the VIPC technology piloting and validation efforts as part of our ongoing community engagement and collaboration efforts, and we look forward to increased civil-military cooperation in this new and challenging environment upon us. For any questions, I may be contacted at accst@us.af.mil and/or (757) 764-6804.

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JOHN D. MATYJAS, PhD, SL (SES)
Scientific Advisor to the Commander