



**Virginia Unmanned Systems Commission Third Meeting  
February 12, 2016  
Offices of McGuireWoods, Gateway Plaza  
800 E Canal St, Richmond, VA 23219  
Frances Hayes Room, 18<sup>th</sup> Floor**

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**Chairs Present:**

Dr. John S. Langford, Chairman and CEO of Aurora Flight Systems  
Ms. Nicole Barranco, State Government Relations, Volkswagen Group of America

**Members Present:**

Robert E. "Bob" Dehnert, Senior Director, Raytheon Company  
Guy Sanitate, Scitor Corporation, an SAIC Company  
Victoria Cox, Senior Technical Advisor, Veracity Engineering  
Scott Strimple, Captain, United Airlines  
David Hamrick, Senior Technical Advisor, The MITRE Corporation  
Vice Admiral David Architzel USN (Ret), President, Fairlead Boat Works, Inc. (Special Advisor)  
Jack Kennedy, Jr., Esq., Clerk of Circuit Court, County of Wise

**Representing Commission Members:**

Amy Harris, Office of the Secretary of Education, for Secretary Anne Holton  
Nicholas Devereux, Office of U.S. Senator Mark Warner

**Guests in Attendance:**

David Hinton, Executive Director to the Commission, Office of the Secretary of Technology  
Greg Richards, Assistant Attorney General, Office of the Attorney General  
Jonathan Selby, Office of the Secretary of Technology  
Jay Smith, Partner, Capital Results

**Public Members Present:**

Listing attached

**Minutes:**

**10:04: Welcome by John Langford**

Thanks to all that contributed to the Commission Interim Report. Would like feedback on the report.  
Noted that a quorum is not present for this meeting. Notes that we have four months to complete our work.

## **10:05: Review and Approval of Minutes from Inaugural Commission Meeting and Commission Interim Report**

Due to lack of a quorum present the Chair requested comments from the Commissioners:

Jack Kennedy: The report is very positive and is an important document.

David Hamrick: Fully supports the report. It is good guidance for the Governor's Office. No need to change in any way. Applauds the group that pulled it together.

Amy Harris for Secretary Anne Holton: Working in the universities for the workforce pipeline is needed. It is a very good report and look forward to working on the education aspects.

Bob Dehnert: Very positive comments on the report. As we approach June we need to neck down and focus. Virginia has a lot to offer and we are not being aggressive enough.

John Langford: We need to be aggressive. Not quite there yet. We need something that every UAV company would want to be here for.

Nicole Barranco: I agree with the report, good start.

Nicholas Devereux: Senator Warner is very pleased so far and looks forward to additional progress.

Vicki Cox: Is a very good report. It does a good job of reflecting all areas of unmanned systems.

Guy Sanitate: A great report. There is a movement towards a unified group to wrap a lot of this stuff together. Need a unified force – education, everything. Will flesh this out in the marketing subgroup. For example if I were a company in California who would I call in Virginia?

Scott Strimple: Agree with prior comments. We are getting focus. Agree we need the marketing move – a focal point.

David Architzel: Report has a lot of great things, but we are dealing with a topic with exponential growth in technology. If we only progress linearly the gap widens. Nuggets must be brought forward and action taken. The actionable part needs to be in the report.

## **10:20: Relevant UMS activities in the Commonwealth by Dave Hinton**

The 2016 marketing report "Unmanned Vehicle Systems in Virginia" has been published and is posted at the Virginia Unmanned Systems web site <https://vus.virginia.gov/> This is the beginning of a set of marketing materials and methods.

Capital Results is onboard and is developing a marketing approach. That briefing will follow.

The Central Virginia corridor for technology maturation and beyond line of sight research is growing. An MOU in place with several stakeholders in energy and infrastructure sectors and the introduced budget includes a line item for infrastructure. The MAAP working to grow the existing COA from 185 square miles to well over 3000 square miles.

Albemarle County efforts to bring UAS to life saving missions. Envision search and rescues missions flown both by public entities and by commercial service providers. A January 7 meeting at the University of Virginia began development of requirements to provide to the Secretary of Public Safety and Homeland Security for further implementation decisions and planning.

The Hampton Roads UMS Consortium is planning an Unmanned Systems Opportunity Exchange. This is a collaborative effort to bring together customers, suppliers, technology experts, and talent in the Hampton Roads

Region. The Exchange is designed to provide a platform to discover opportunities that will help to enable Virginia's growth in the unmanned systems industry. Panel discussions surrounding regulation, market entry, technology & innovation, and workforce will take place on Friday, April 22nd at the Hampton Convention Center, with a pre-event workshop and reception on Thursday, April 21st.

An Education Summit is being co-hosted by the UMS Commission and the Virginia Tech Transportation Institute. This will take place on March 14-15 at Blacksburg. We will be bring together universities and community colleges to share our programs and perspectives in educating the workforce of the future needed for this industry, look for ways to work together, and examine the role of skilled veterans returning to the workforce from military service. Information will be emailed to all who have signed in at this Commission meeting.

#### **10:30: Innovation and Business Environment Work Group Brief by Bob Dehnert**

Bob noted that he had received a small UAS in a package from another state. This is an example of how other states are being aggressive in marketing. In Hawaii there is a big sign in the airport exit for Hawaiian UMS opportunity. The Commonwealth has more to offer than any other state, but it is the best kept secret. NOVA has enormous technical skill sets. Manufacturing. Our ranges. Our oceans. Navy on Long-Duration Unmanned Underwater Vehicles (LD-UUV). Geographic size allows easy movement between the pieces. All within 3 to 4 hours.

High payoff items for us: Define incentives. Define the focal point. We need an advocate and a champion.

Virginia needs a UMS market survey: Look at past & present technology trends and the needs of the industry. Example: for automated cars here is who you go to and what you say. We need some entity – be the face of and advocate for UMS in VA. All of it: small and large business, legislature, workforce. Build on a rock solid foundation of data based on a market survey. Who could chair? Someone like John Jumper, former USAF chief of staff. Someone like this that is nationally recognized and people would get it when he walks in.

John Langford: Have we looked at Virginia Biotech as an example? Dave Hinton: Yes. The CEO briefed the Commission in November and I have met with him for additional insight. I discussed the functions of the UMS focal suggested in our Interim Report and those functions align well with the activities of Virginia Bio. A voice and advocate of the industry.

#### **10:45: Marketing Work Group Brief by Mr. Guy Sanitate**

We have looked at some form of a trade association for the focal. We see a three leg stool of state, industry, and academia. Agrees with David Architzel that we are a bit behind the power curve. We have some good companies here on the Commission that are in northern Virginia. There are best practices that we may not yet be aware of. No unified message yet. How do we do that? Trade shows, hospitality booth, etc?

Metrics: How do we define victory? This entity would be a great leap forward. We will work with Bob Dehnert and his group; there is a lot of cross talk.

David Architzel comment: There is also a piece of marketing for what is already here. There are a lot of small businesses struggling and trying to get over the hump. Struggling for a grant. We could be the voice for them. As an example; materials. We have those companies today. Example of boron nitrate nanotube – now one knows that they are here. Does that apply to UMS? You bet it does.

Guy Sanitate: David is right. What is the unifying message for both drawing firms here and helping the ones that are here.

John Langford; an example of a reverse incentive. We wanted a new facility in Manassas and the incentives existed only for firms out of state or to prevent us from moving out of state. Virginia forced us to get bids from other states first. One of those might have been attractive.

#### **10:57: Policy and Regulatory Work Group Brief by Ms. Victoria Cox**

We held a work group meeting in January. We need laws on privacy and data rather than the platform it was taken from. Laws can give the impression that we are unwelcoming to UAS. Suggests that the Commission support a statewide initiative on use of UAS for life saving missions (Albemarle).

Public Relations: need the effort to educate the public to affect perceptions. Suggests that the Marketing Work Group add this to their outreach plans.

Suggests a Special Committee for comprehensive review of Virginia laws. Do this in conjunction with the FAA. This is a candidate for immediate action.

Suggests a Pathfinder Project. A way for FAA legal to work on a pathfinder project. Suggest we run this up the flagpole and see what the FAA says.

Dave Hamrick: The FAA pathfinder program is described on the FAA web site. Ideas: night, BLOS, rural areas.

John Langford; I have taken informal surveys by asking firms in Silicon Valley what it would take to get you to move to Virginia? The first reply is generally that nothing would make us move there. Then they ask "Do you know how we'd get these things certified?" This is a foundational need. This is needed to scale up beyond certifications.

Scott Strimple: We are working with ASTM International and the FAA. UAS will need type certification to go beyond Section 333 applications. There are no standards yet. Earl Lawrence would be the guy to work with.

Nicholas: The Senator did meet with the FAA. They were receptive to working outside the list of pathfinders – to push the envelope. It behooves us to start these ideas now with FAA.

#### **11:15: A Technical Briefing by Ms. Nicole Barranco, Volkswagen Group of America**

Ms. Barranco and engineer Kaushik Raghu described the automated Audi demonstrations being given to state legislators yesterday and today as well as the technology. Kaushik is based in San Francisco on the Advanced Driver Assistance Systems team at the Electronic Research Laboratory.

John Langford question: Why did you choose San Francisco rather than Virginia and what would Virginia need to do to get you to move? Reply: The facility has been there for a very long time. Silicon Valley was the global hub for software at the time the lab was formed. It grew out of Stanford. And others are there such as Google. The headquarters in Herndon and VTTI gives us an opportunity to do more here.

David Hamrick question: Any comment on certification requirements for autos? Reply: This technology advance is not something that is completely new. There is already an established method to advance these technologies. We are seeing a patchwork of state laws. Virginia has been really great in not passing some of these laws.

## **11:40: Development of a Virginia Marketing Strategy by Mr. Jay T. Smith, Capital Results**

What other states are doing is part of our research. None are “nailing it”. But Virginia is not leading the pack. Interviews in progress and we are following leads provided. North Dakota, California, Texas, and Nevada are often mentioned as doing this well.

North Dakota; has a good web site and is focused on UAS. They have a strong media strategy and state sponsored initiatives.

California and UMS are almost synonymous. They have several industry events each year. They have two associations like the focal we are talking about.

Ohio partners with Indiana to go out together. They focus on aerial.

Texas: markets UMS – primary UAV. Border patrol. Legislation is very favorable. Several state-wide events.

Nevada: A strong web presence. A \$1M state grant for the Nevada Institute of Autonomous Systems that advocates for the industry.

No state is doing it all right. This is an opportunity for Virginia.

How is Virginia doing? We have a lot of assets. We can put all together to be the place to be.

VEDP says they are not equipped to be the focal. They can help by making introductions. Working larger companies.

Question: What do the two California associations do? Why two? Reply: They are set up regionally because California is so large. The associations include Raytheon, Northrup Grumman, etc. and have an educational component. It needs to be a “voice” not just marketing. Need government representation and academia. Question:

How involved is the state? Reply: not sure. Neither is quasi-government like our VEDP. More of a trade association.

## **12:03: Commission Path Forward**

John Langford asks Nicholas: What do you see needed?

Reply: we need specific actionable items. A roadmap with a checklist to focus on specific items. We have reached a point of having recommendations. Need to drill down to details. Not just focus in the final report but also what can be done in the interim. What can we do “now”. Call FAA on certification process as example.

Guy Sanitate. Should we pick three things that we can do? Not a bunch of them, as opposed to a checklist?

Nicholas and Bob Dehnert: Agree – three to five the focal and a market survey are “now”.

What is Jay’s (Capital Results) schedule? 2 to 3 weeks on the research phase, then moving to value proposition (couple more weeks).

David Hamrick. Current pathfinders are industry. There is a need for a public entity for the public good, i.e. VDEM.

## **12:10: Public Comments**

Joel Coulter: We did a survey back about 2012. Recommendation: can put together networks and data systems that others would flock to.

Jon Greene: We are flying 3 times more than the next busiest test range in terms of hours and sorties.

The FAA has really slowed on the COA process. We have a “maybe” on an expansion of the central Virginia corridor to 400 sq. miles in 2 weeks then another month to a 3000 sq. mile COA.

Certification is what we are looking at now. Mark Blanks is well positioned.

We did two Pathfinder-like activities (news coalition and a firm’s technology). We can start the Pathfinder tomorrow.

Appreciate that we recognize the role of small business. We need to focus on small business opportunities. We need programs there.

Randy Burdette: We accomplished a first in medical supplies. We have many airports that are an asset.

Tracy Tynan (VEDP): We will host a Virginia reception at the AUVSI event in New Orleans.

**12:30: Adjourn the Full Commission meeting**

Break for lunch followed by meeting of the Business and Innovation Environment Work Group and the Marketing Work Group

**Attachment – Public Members Present:**

Cliff Burnette	Department of Aviation
Randall Burdette	Department of Aviation
Peggy Brouse	George Mason University
Tim Tingler	Quest Knight Enterprises
Richard Bensinger	Loudoun County, VA
Jay Smith	Capital Results
Clark Barrineau	Capital Results
Tracy Tynan	Virginia Economic Development Authority
Mike Yaskowsky	City of Hampton
Daniel Morris	Peninsula Technology Incubator, National Institute of Aerospace
Harry Gregori	Virginia UAS Solutions
Jon Greene	Virginia Tech
Loginn Kapitlan	Unmanned Systems International Corporation
Stacy Stratton	CAI
Kevin Pomfret	Williams Mullen
Joel Coulter	Mobile Sciences Cons. LLC
John Mohrmann	Capital Results
Brad Stertz	Audi
Tom Balogia	Audi
John A. Marshall	Marshall Consulting Services
Michele Satterlund	McGuireWoods Consulting LLC
Jay Willmott	AUVSI/Hampton Roads
Spencer Mathews	Volkswagen
Kausnik Raghu	Volkswagen Group of America
Melissa Velasquez	Virginia Department of Motor Vehicles