

Virginia Unmanned Systems Commission
Inaugural Meeting

September 18, 2015

The George Mason University, Arlington Campus
3351 Fairfax Drive, Founders Hall, Arlington, VA 22201

Chairs:

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

Members present:

Mark Warner, U.S. Senator
Karen Jackson, Secretary of Technology
John Harvey, Secretary of Veterans and Defense Affairs
Robert E. "Bob" Dehnert, Senior Director, Raytheon Company
Jim Hughes, Vice President of Submarine Programs, Newport News Shipbuilding
Guy Sanitate, Scitor Corporation, an SAIC Company
Steve Weidner, National Air Traffic Controllers Association
Victoria Cox, Senior Technical Advisor, Veracity Engineering
Tom Dingus, Director, Virginia Tech Transportation Institute
Young Kim, CEO, Digital Harvest
Scott Strimple, Captain, United Airlines
Vice Admiral David Architzel USN (Ret), President, Fairlead Boat Works, Inc. (Special Advisor)

Representing Members:

Mark Oliva, Defense Legislative Fellow for U.S. Representative Scott Rigell
Grindly Johnson, Deputy Secretary of Transportation for Secretary Aubrey Layne

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
Kelly Thomasson, Deputy Secretary of the Commonwealth
Nicholas Devereux, Office of U.S. Senator Mark Warner
Jonathan Selby, Office of the Secretary of Technology
John Kissel, VITA

Public Members Present: Listing Attached

Minutes:

9:15: Welcome by the Dean, George Mason University Volgenau School of Engineering, Dr. Kenneth Ball

9:18 Call to Order and Introduction of Commission members by John Langford

9:22: Swearing in of Commission Members by Kelly Thomasson

9:25: Welcoming Comments by Virginia Governor Terry McAuliffe

- Importance of the unmanned systems industry and this Commission to the New Virginia Economy

9:30: Welcoming Comments by Senator Mark Warner

- Discussed need to move faster and leverage our assets including Mid-Atlantic Aviation Partnership and airports.
- Five points
 1. Need a marketing plan
 2. Need an update to the previous survey of firms and assets.
 3. Need a plan on regulatory issues
 4. Intersection with unmanned systems across air/land/sea
 5. Need a manufacturing plan.
- Need industry vectors.

9:40: Is there a drone in your future - briefing from John Langford

- Safety, privacy, property rights, ethics as issues and concerns
- Opportunities for Virginia:
 - Intersection of drone technology and telecommunications technology
 - Fully utilize the FAA test site franchise
 - A coffee table photo book of Virginia from the air.....taken entirely from drones

9:55: Piloted Driving briefing from Nicole Barranco

- SAE standards; 6 levels of autonomy
- From level 2 to 3 there is a paradigm shift from the driver having primary responsibility for the driving task to the vehicle having the primary responsibility
- We are approaching level 3

10:08: Unmanned Maritime Systems briefing by Jim Hughes

- Commercial industry moving from remotely operated to autonomous
- Military side: references swarming event.
- Unmanned Underwater Vehicles (UUV) is an opportunity. Undersea infrastructure (charging stations.....) Potentially over a \$1B a year by 2020. \$700M opportunity regionally in that.

10:18: Feedback from the Governor: Thank you. We have the best team here. There is no wall we won't knock down. Think Big – Be Bold – Take Changes – Take Risks

10:20: FOIA Briefing: Greg Richards

- Members must familiarize themselves with the Virginia FOIA law
- Three or more members conducting Commission business constitutes a public meeting, whether in person or telephone or email
- Notice must be provided for all public meetings.

10:30: Housekeeping items by David Hinton

- How to file expenses, for mileage
- The Commission public web site will contain all meeting materials
 - <https://vus.virginia.gov/ums-commission/>

10:35: Commission Basics by Karen Jackson

- Next legislative cycle preparation is now
- Hit the ground running - ramp up quick
- Bills have been introduced to limit UAS use – hope you are the voice to balance and articulate the potential of UMS to Virginia.
- Secretary Aubrey Layne has been added to the Commission. We will issue an updated Executive Order.

10:38: Framing the Question led by John Langford

Comments around the table from the Members:

- NATCA supports the safe integration of UAS into the NAS.
- Consider training, who does this and how? We can have a robust training program. We need to consider not only how UAS are flown today but also what the task will be in the future.
- Many sensor companies are here in Virginia. There is more to drones than the platform itself.
- NASA is doing a lot in UAS and UAS Traffic Management. A NASA representative in the room described funded projects via Armstrong and Ames, recent conference, and internal incubation work at NASA Langley.
- We need to focus on marketing and manufacturing plans. Unmanned technology and offshore wind is a potential marriage of opportunity.
- Consider centers of excellence around systems: platforms, controls, sensors. Think of common systems to create business opportunities.
- Would like to see more minorities and women and millennials included – those are the people that will actually be using these.
- UAS companies don't look like the traditional large firms. What incentive packages are needed for the smaller firms? Same question of large firms for bringing more research to the state? Are there things we need to do better?
- Questions that need to be addressed include
 1. Where is the focal point?
 2. Update our inventory of firms and assets. What is the status in other states and other countries?
 3. How do we get the universities to actually collaborate?

4. What region will be our hub? Consider Hampton Roads due to DoD concentration there.
 5. Consider a crowd sourcing project for the coffee table book
 6. FAA – what else should be done there?
 7. Where do we stand on the regulatory issues and research as we move beyond line of sight?
- Discussion of the roles of CIT and VEDP and alignment with industrial development.
 - How do we link together all the entrepreneurial activities and line up funding? If you say we need funds to dedicate a couple of folks I think we can get that.
 - Other states have robust industrial development projects including UAS. A background task is to find out what other states are doing.
 - We need to know the structures that must be put in place to operate.
 - We have been focused on aviation – this is a much larger discussion. We need to move beyond and we have a much larger vision.
 - Things are happening, the Hampton Roads unmanned systems group and the Central Virginia corridor – but we need to move faster.
 - Marketing is key – we want to do this. We need to be the state to say “yes” to these ideas. Be proactive in the state – map out these corridors. Proactively promote these areas as open for experimentation.
 - Discussion about Silicon Valley becoming a hub for automotive innovation.
 - Firms are raiding the autonomy talent. Going to where the talent is.
 - There are assets at all our universities – how do we get them to talk to each other?
 - To be a market leader we need to focus, say yes to a few things and drill down. Is VA going to be focused on outcome driven companies (DoD) or economic driven companies? Need insights to get good vision and business plans.
 - Opportunity to work agriculture at night – nighttime is better for some activities. Agriculture is a \$212B. Robots air and ground for nighttime operations. This is a thought process for actionable items.
 - We need to guide people away from the media stigma of “drones”. We need professional standards for operating this equipment.
 - Hampton Roads is a great test bed for DoD applications. We should engage the Allied Command Transformation (NATO). Reforms are needed in the DoD acquisition process.
 - We need to determine who the point of contact for the state will be and find the budget if something is needed.

11:38: Open for Public Comments:

- Public safety should be more prominent. Suggests a public safety use training program. Encourages the Commission to look at local law enforcement needs.
- An extended R&D tax credit for larger R&D firms is low hanging fruit for the Commonwealth.
- Autonomous systems and materials are high priority. TRADOC sets requirements and we have Fort Eustis. More interest in road vehicles and robotics.
- Service oriented information exchange; Ft Eustis could be as vibrant as California.
- Need to address insurance and liability.
- Multiple universities around the country are offering training.
- The word “drone” implies lethal. Try to not use the word.
- Center for Infrastructure Protection at GMU, Ag, energy, comm, waste water are diverse assets that can be supported. The Commission is right to define market draw – business case.

12:00: Break

12:05: Discussion of work groups by John Langford

- Homework: each of you to think of today's talk, propose minimum of two working groups.
- Do we pick focus areas like law or agriculture or focus more broadly than that? We need meaningful results.
- Send comments in to David Hinton

12:15: Date of the next meeting announced; Nov 5 in DC.

12:17: Motion to adjourn from Nicole, second by Scott Strimple

Draft for Review - Unapproved

Public Members Present	
Name	Organization
Joel Coelter	MobileSciencesCom LLC
Terron Sims,II	Doug Pollard LLC
Ken Ball	George Mason University
Paulo Costa	George Mason University
Sandra Norman	VDOT
Michael J. McCormick	George Mason University
Nicholas Devereux	US Senate
Jennifer Dionne	Atlantic Strategies Group
Joe Vaucieve	VC&A.Inc
Harry E. Gregori, Jr	Gregori Consulting LLC
David Barbor	SAIC
Rebecca Brenton	HII
Trisha Orcajo	GMU
Vern Mosley	FCC
Richard Rumpf	RAI
Graham Archer	SYNOGI
Aimee Gilroy	Raytheon
Denise Lawless	NASA-WFF
Kai Zeng	GMU
Jennifer Walle	Cornerstone Govt. Affairs
James McDonough	Unmanned Aerial Systems Inc.
Chip Sheller	VP Comms - Aurora
Bob Stolle	CIT
Peggy Brouse	GMU
George Finelli	NASA Langley
Richard Bensinger	Loudoun County, VA
Melissa Velazquez	DMV
David King	Albemarle County Sheriff
Cliff Burnette	Virginia Dept. Aviation
John Simmons	The Roosevelt Group
Brian Orfino	GMU