



Virginia Department of Planning and Budget **Economic Impact Analysis**

24 VAC 5-20 Regulations Governing the Licensing and Operation of Airports and Aircraft and Obstructions to Airspace in the Commonwealth of Virginia

Virginia Department of Aviation

Town Hall Action/Stage: 5697 / 9511

July 14, 2022

The Department of Planning and Budget (DPB) has analyzed the economic impact of this proposed regulation in accordance with § 2.2-4007.04 of the Code of Virginia (Code) and Executive Order 14 (as amended, July 16, 2018). The analysis presented below represents DPB's best estimate of these economic impacts.¹

Summary of the Proposed Amendments to Regulation

Pursuant to Chapter 345 of the 2020 Acts of Assembly², the Virginia Aviation Board (Board) proposes to replace emergency regulations with permanent regulations pursuant to which cities, counties, towns, school divisions, park authorities, jail authorities and airport authorities (political subdivisions)³ may regulate the take-off and landing of an unmanned aircraft in their areas.

Background

Prior to the enactment of Chapter 345, Section 15.2-926.3 of the Code of Virginia prohibited political subdivisions from regulating the use of a privately owned, unmanned aircraft (UAV) system as defined in § 19.2-60.1 of the Code of Virginia⁴ within its boundaries.

¹ Code § 2.2-4007.04 requires that such economic impact analyses determine the public benefits and costs of the proposed amendments. Further the analysis should include but not be limited to: (1) the projected number of businesses or other entities to whom the proposed regulatory action would apply, (2) the identity of any localities and types of businesses or other entities particularly affected, (3) the projected number of persons and employment positions to be affected, (4) the projected costs to affected businesses or entities to implement or comply with the regulation, and (5) the impact on the use and value of private property.

² <https://lis.virginia.gov/cgi-bin/legp604.exe?201+ful+CHAP0345>

³ This definition of "political subdivision" is contained in the proposed regulatory text.

⁴ "Unmanned aircraft" means an aircraft that is operated without the possibility of human intervention from within or on the aircraft.

According to the Board, this prohibition was the source of concern among some political subdivisions about their inability to protect all users of property owned by the political subdivision from the hazards associated with the launching and landing of UAVs on those properties. The concern was addressed by Chapter 345, which authorized political subdivisions to regulate take-off and landing of a UAV on property owned by the political subdivision, subject to approval by the Virginia Department of Aviation (DOAV) as follows:

B. Notwithstanding the prohibition of subsection A, a political subdivision may, by ordinance or regulation, regulate the take-off and landing of an unmanned aircraft, as defined in § 19.2-60.1, on property owned by the political subdivision. Such ordinance or regulation shall be developed and authorized in accordance with the rules and regulations promulgated by the Department of Aviation (the Department). The political subdivision shall report to the Department any ordinance or regulation adopted pursuant to this section, and the Department shall publish and update annually on its website, and any other website the Department deems appropriate, a summary of any such ordinance or regulation adopted.

Chapter 345 also provided some exemptions from the applicability of political subdivision ordinances or regulations as follows:

D. Nothing in this section shall be construed to prohibit (i) the take-off or landing of an unmanned aircraft by a commercial operator in compliance with Federal Aviation Administration regulations, or as deemed reasonable or necessary by private or public entities for emergency or maintenance support functions or services, including the protection and maintenance of public or private critical infrastructure; (ii) the landing of an unmanned aircraft by an operator in compliance with Federal Aviation Administration regulations as deemed reasonable or necessary by the operator in the event of a technical malfunction of an unmanned aircraft system; (iii) the take-off or landing of an unmanned aircraft being operated by a sworn public safety officer in the performance of his duties; or (iv) the take-off or landing of an unmanned aircraft owned or operated by the United States government, or any operator under contract with any agency of the United States government, in performance of his assigned duties.

Based on the legislative mandate, DOAV held extensive conversations with affected interest groups – including citizen-oriented groups, state emergency services personnel, and unmanned aviation industry representatives – and developed emergency regulations⁵ effective August 13, 2021. In this action, the Board proposes to make the emergency rules permanent.

“Unmanned aircraft system” means an unmanned aircraft and associated elements, including communication links, sensing devices, and the components that control the unmanned aircraft.

⁵ <https://townhall.virginia.gov/l/viewstage.cfm?stageid=9225>

In essence, the proposed regulation mainly establishes a procedure for political subdivisions to develop and establish ordinances or regulations on the use of UAV and systems. According to the proposal, the steps are as follows: 1) any local ordinance or regulation is submitted to DOAV for review, 2) upon approval by DOAV, the locality or political subdivision holds a public hearing and advertises the hearing 14 days prior to the date of the hearing, 3) the locality or political subdivision reports the adoption of the rules to DOAV within 14 days of the adoption, 4) DOAV publishes new or revised rules on its website or provides links to the locality's website within 14 days of from receiving the adoption notice.

The other substantive rules established by this proposal, but which are not mentioned in the mandate, are those that authorize political subdivisions to i) regulate when take-offs or landings are allowed; ii) designate specific properties of increased concern for public safety or risk to natural resources where the operator may be subject to additional requirements, such as stating the purpose and demonstration of safety of the take-off and landing in that area; iii) require the operator to provide information prior to any take-off or landing or demonstrate safety if the UAV has a take-off weight of 55 pounds or more; and iv) regulate UAV with a take-off weight of less than 0.55 pounds only in designated areas in item ii.

The proposal also provides exemptions from the applicability of local rules for take-offs and landings of UAVs that are either under the purview of Federal Aviation Administration, or are operated by the United States government, certain sworn officers, or employees of localities or political subdivisions, etc.

In summary, the legislative mandate now allows localities and political subdivisions to regulate take-off and landing of UAVs in their jurisdictions. And, this proposed regulation establishes a procedure to develop and establish such a local ordinance or regulation to restrict the use of UAVs mainly in terms of timing and locations.

Estimated Benefits and Costs

Government rules regarding UAVs are numerous and complex, which makes local regulation very challenging. For example, operation of a UAV in the air (unlike take-off and landing) falls solely under the purview of the Federal Aviation Administration, and local governments and political subdivisions lack authority over this operation. In addition, federal and state entities may have their own regulations in their own areas such as federal and state parks,

prisons, etc. However, prior to the legislative mandate, political subdivisions in the Commonwealth lacked authority to regulate UAVs in their jurisdictions. With this action, political subdivisions would have the authority and also a process by which they can develop and establish rules primarily for the timing and location of take-off and landing (rather than operation in the air) of UAVs in their jurisdictions.

Benefits

The fact that all ordinances and local regulations would have to be reviewed and approved by DOAV prior to their adoption should provide some level of consistency across different political subdivisions, while allowing them to factor in local area considerations. The greater the consistency across localities, the easier it would be for users of UAVs to understand and comply with the local rules.

Although the use of UAVs has many current and potential beneficial uses in civil applications such as photography, cinematography, archeology, surveys, inspections, conservation, hobby and recreation, package delivery, healthcare, journalism, scientific research, search and rescue, agriculture, manufacturing, construction, etc., it also has the potential to pose risks to safety, the environment, security, privacy, etc. For example, in the absence of the recent legislation and the proposed regulation, a drone may take-off or land from a crowded local park, a street, a school backyard, a dense downtown, or near private residences. Potential hazards associated with launching and landing of UAVs were the original concern among the localities as mentioned above. The intent of the mandate and this regulation appears to give localities and political subdivisions an ability to mitigate potential harmful uses or hazards posed by UAVs. Consequently, depending on the specifics of each local and political subdivision ordinance and regulation, a reduction in potential harms from the use of UAVs may be expected.

Costs

DOAV would likely expend some one-time administrative resources such as staff time to review and approve initial local government ordinances and regulations and ongoing resources for monitoring and subsequent amendments to local rules. Currently, DOAV is absorbing such expenses within its existing resources. However, if ongoing expenses prove to be non-negligible, the possibility of a future budget request to cover such expenses cannot be ruled out.

The users of UAVs would likely lose some flexibility in terms of when and where they can take-off and land their equipment if and when a political subdivision passes an ordinance or regulation. Also, the legislation and this regulation is silent about fees for the use of UAVs, but DOAV states that political subdivisions have inherent powers to assess permit or registration fees if they see fit. Thus, some users may be required to pay some fees in certain jurisdictions. DOAV stated that one of its objectives is to keep any local restrictions on recreational use of UAVs at a minimum. Also, DOAV foresees assessment of fees only on commercial uses. However, it does not appear that DOAV has the authority or the tools to achieve those objectives.

Businesses and Other Entities Affected

The proposed regulation applies to all 132 localities and all other political subdivisions in the Commonwealth. DOAV initially expects a few large localities to seek approval for their ordinances or local regulations regarding take-off and landing of UAVs. Once a few localities adopt their own rules, DOAV believes most others would follow, eventually reaching 100-110 of the 132 localities.

The users of UAVs would also be affected if and when the political subdivision they live in adopts an ordinance or regulation. According to DOAV, there are 865,505 drones registered in the United States with the Federal Aviation Administration. Of these, approximately 35 percent are commercial drones and 65 percent are recreational. Given the national numbers and anecdotal information from DOAV, the number of drones in Virginia is likely in the tens of thousands, but precise data are not available.

The Code of Virginia requires DPB to assess whether an adverse impact may result from the proposed regulation.⁶ An adverse impact is indicated if there is any increase in net cost or reduction in net revenue for any entity, even if the benefits exceed the costs for all entities combined. As noted above, some users of UAVs would likely lose some flexibility in terms of when and where they can take-off and land their equipment if and when the locality or

⁶ Pursuant to Code § 2.2-4007.04(D): In the event this economic impact analysis reveals that the proposed regulation would have an adverse economic impact on businesses or would impose a significant adverse economic impact on a locality, business, or entity particularly affected, the Department of Planning and Budget shall advise the Joint Commission on Administrative Rules, the House Committee on Appropriations, and the Senate Committee on Finance. Statute does not define “adverse impact,” state whether only Virginia entities should be considered, nor indicate whether an adverse impact results from regulatory requirements mandated by legislation.

subdivision passes an ordinance or regulation. Thus, an adverse impact on some users is indicated.

Small Businesses⁷ Affected:⁸

Of the tens of thousands of UAVs that likely exist in Virginia, national statistics suggest 35 percent are involved in commercial uses. Of these commercial drones, some are bound to be used by small businesses.

Types and Estimated Number of Small Businesses Affected

There is no reliable estimate on what portion of the commercial UAVs may be used by small businesses or what types of small businesses.

Costs and Other Effects

The proposed regulation allows localities to restrict the use of UAVs primarily in terms of time and location. Thus, small businesses would be adversely affected as they may lose some flexibility in terms of time and locations where their UAVs can take-off and land when and if the locality adopts such restrictions.

Alternative Method that Minimizes Adverse Impact

There are no clear alternative methods that both reduce the adverse impact and meet the intended policy goals.

Localities⁹ Affected¹⁰

The proposed regulation potentially affects all 132 localities. The legislation and the regulation allow, but do not require localities to adopt rules governing the take-off and landing of

⁷ Pursuant to § 2.2-4007.04 of the Code of Virginia, small business is defined as “a business entity, including its affiliates, that (i) is independently owned and operated and (ii) employs fewer than 500 full-time employees or has gross annual sales of less than \$6 million.”

⁸ If the proposed regulatory action may have an adverse effect on small businesses, Code § 2.2-4007.04 requires that such economic impact analyses include: (1) an identification and estimate of the number of small businesses subject to the proposed regulation, (2) the projected reporting, recordkeeping, and other administrative costs required for small businesses to comply with the proposed regulation, including the type of professional skills necessary for preparing required reports and other documents, (3) a statement of the probable effect of the proposed regulation on affected small businesses, and (4) a description of any less intrusive or less costly alternative methods of achieving the purpose of the proposed regulation. Additionally, pursuant to Code § 2.2-4007.1, if there is a finding that a proposed regulation may have an adverse impact on small business, the Joint Commission on Administrative Rules shall be notified.

⁹ “Locality” can refer to either local governments or the locations in the Commonwealth where the activities relevant to the regulatory change are most likely to occur.

¹⁰ § 2.2-4007.04 defines “particularly affected” as bearing disproportionate material impact.

UAVs. In addition, a locality may assess fees for registration or permit to cover its costs if it chooses to establish rules and procedures. Thus, the proposed amendments do not introduce costs for local governments. Although localities with higher population densities may potentially be more inclined to adopt rules on UAVs, on its face the regulation does not appear to particularly affect any locality more than others.

Projected Impact on Employment

The proposed amendments do not appear to directly affect total employment.

Effects on the Use and Value of Private Property

The new legislation and the proposed regulation allow localities to adopt regulations on the use of UAVs. Some of the UAVs are used for commercial purposes and their use may be restricted and/or be subject to registration or permit fees. Such restrictions and fees may add to compliance costs of the affected businesses and have a negative impact on their asset values.

Conversely, one of the purposes of local rules restricting the use of UAVs in certain locations is to enhance environmental protection and minimize environmental hazards. Thus, to the extent a private property is protected better from harms and hazards posed by UAVs, its use should be enhanced and its value should be positively affected.

The proposed regulation does not appear to affect real estate development costs.