

**MEMORANDUM**

September 30, 2014

TO: Public Safety Committee

FROM: *KL* Keith Levchenko, Senior Legislative Analyst

SUBJECT: Resolution to call for Council Review and Approval of the Executive Branch's Unmanned Aerial Systems (UAS) Deployment/Usage Protocols

On September 23, the Council introduced a resolution (see ©1-2) which calls for the Council review and approval of protocols for the use of Unmanned Aerial Systems (UAS or drones) by County Government. This resolution was drafted in the wake of the Public Safety Committee meeting of September 11 in which Executive staff noted that an Executive Branch review of the use of drones had recently been initiated.

On September 26, the County Executive, citing both policy and personal reservations, stated that he has suspended any Executive Branch study or use of drones at this time. Given this action, Executive Branch staff have indicated that they do not intend to participate in the October 2 Public Safety Committee discussion.

**Background**

On September 11, the Public Safety Committee discussed a number of County emergency preparedness issues with Executive staff. The potential benefits and issues associated with the governmental use of drones were discussed (see slide provided by Executive staff on ©3). The implications of the use of drones (security, safety, privacy) by both the public and private sector have been the subject of a flurry of news stories over the past few months<sup>1</sup> as governments at all levels throughout the United States consider this technology for a variety of uses.

In Montgomery County, the Fire and Rescue Service recently purchased three drones (Phantom Quadcopters) that potentially could provide aerial views at fire incidents. The

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<sup>1</sup> For a list of news story links, see ©4-6.

County's Chief Innovation Officer also purchased a drone (a parrot model) for a pilot study.<sup>2</sup> At the September 11 discussion, the County's Police Chief noted that the use of this technology by police departments elsewhere in the United States has been fraught with controversy and that the Montgomery County Police Department has no immediate plans to utilize drones and would not do so in the future without more community discussion.

Meanwhile, in anticipation of future changes in FAA regulations<sup>3</sup> to allow commercial drone use, companies like Amazon, Google, and Dominos Pizza are testing the concept of delivery drones.

### **Council Staff Comments**

While Executive Branch caution in the use of drones is understandable at this time, the Executive's position on studying the potential benefits and implications is puzzling, especially given the interest shown by the Fire and Rescue Service (see Gazette story on ©12-13), which utilized drones in a disaster preparedness drill at the South Germantown Recreational Park on May 8.

There appear to be many potential beneficial applications for the use of drones in local government. Some of these applications may even have the potential to save lives and property (in the case of their potential use by the Fire and Rescue Service). Further in-house study of these potential benefits (and the needed protocols) seems appropriate, and the Council should encourage the Executive to do this (with appropriate Council review and approval as the draft resolution supports).

Privacy, safety, and security issues are also important concerns with regard to the private use of drones. The decreasing cost and improving technology of drones mean that there will likely be many more drones in private use in the County in the coming months, regardless of what the County decides about its own governmental use of drones. Individual and neighborhood concerns will likely increase. At a minimum, the County should review existing laws, regulations, and procedures to identify potential gaps in County authority or policy that may need action to ensure the County has the tools it needs to address concerns about private use.

### **Attachments**

KML:f:\evchenko\emergency management\drones\ps drone resolution discussion 10 2 14.docx

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<sup>2</sup> Both models are readily available for purchase online. Council Staff found a "parrot" drone for \$300 and a "Phantom 2 Quadcopter" for \$800, both available on Amazon.com.

<sup>3</sup> Current FAA requirements are quite restrictive regarding commercial use of drones. Details regarding the FAA requirements are attached on ©7-8. Common myths and facts regarding the FAA requirements are noted on ©9-11.

AGENDA ITEM #2A  
September 23, 2014

**Introduction**

Resolution No.: \_\_\_\_\_  
Introduced: \_\_\_\_\_  
Adopted: \_\_\_\_\_

**COUNTY COUNCIL  
FOR MONTGOMERY COUNTY, MARYLAND**

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By: Councilmembers Berliner, Andrews, Elrich, Riemer, Leventhal, and Navarro

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**SUBJECT:** Resolution to Call for Council Review and Approval of the Executive Branch's Unmanned Aerial Systems (UAS) Deployment/Usage Protocols

**Background**

1. On September 11, 2014, Montgomery County's 4 quad-copter style unmanned aerial systems (UAS) – also known as drones – were discussed by the County Council's Public Safety Committee. One drone is assigned to the Executive Branch Office of Innovation, while the other 3 are assigned to Montgomery County Fire & Rescue Services.
2. Under the direction of the Chief Innovation Officer, Montgomery County will test and develop a usage plan for the drones.
3. These types of drones can provide significant benefits to public safety responders, such as seeing behind a fire wall that could otherwise not be penetrated and other situations where it is unsafe to deploy an officer.
4. However, the use of drones raises serious privacy and other policy issues. In its December 2011 report, "Protecting Privacy From Aerial Surveillance: Recommendations for Government Use of Drone Aircraft," the American Civil Liberties Union called on drone usage policy to be clear, determined by the public's representatives, and open to the public.
5. While the County's pilot program is being crafted in conjunction with current research and policy efforts of the National Institute of Standards & Technology (NIST) and the Federal Aviation Administration (FAA), the County Council is responsible for

establishing County Government policy through powers vested in it by State law and the County Charter.

**Action**

The County Council for Montgomery County, Maryland approves the following resolution:

The Montgomery County Council requests the County Executive to transmit to the County Council, for its review and approval, protocols with respect to the deployment and usage of the County's unmanned aircraft systems program before using the drones.

This is a correct copy of Council action.

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Linda M. Lauer, Clerk of the Council

# Unmanned Aircraft Systems

- The County is not Currently Using Unmanned Aircraft Systems (UAS) to support operations
- Prior to Use, the County must obtain a Certificate of Waiver Authorization (COA) from the FAA
  - UAS Program Description
  - Training
  - Medical Exam
  - Airworthiness
- The County does believe UASs may provide improved situational awareness
- We must explore the communications aspect of networked sensing UASs and assess their ability to gather actionable intelligence in a timely and reliable manner.
- The County will identify the primary use cases for these machines, extract mobility models from these use cases, and determine what previous research in this domain applies to such a scenario.

(From OEMHS Presentation Slides 9/11/2014)

## Links to Recent UAS (Drone) News Stories

“White House plans to require federal agencies to provide details about drones,” by Craig, Whitlock, The Washington Post, September 27, 2014.

[http://www.washingtonpost.com/world/national-security/white-house-plans-to-require-federal-agencies-to-provide-details-about-drones/2014/09/26/5f55ac24-4581-11e4-b47c-f5889e061e5f\\_story.html](http://www.washingtonpost.com/world/national-security/white-house-plans-to-require-federal-agencies-to-provide-details-about-drones/2014/09/26/5f55ac24-4581-11e4-b47c-f5889e061e5f_story.html)

“Montgomery County plan for police, fire drones indefinitely grounded,” by Bill Turque, The Washington Post, September 26, 2014.

[http://www.washingtonpost.com/local/maryland-news/montgomery-county-plan-for-police-fire-drones-indefinitely-grounded/2014/09/26/c296ec84-45aa-11e4-9a15-137aa0153527\\_story.html](http://www.washingtonpost.com/local/maryland-news/montgomery-county-plan-for-police-fire-drones-indefinitely-grounded/2014/09/26/c296ec84-45aa-11e4-9a15-137aa0153527_story.html)

“Deutsche Post DHL to Deliver Medicine via Drone Deutsche Post DHL Follows Amazon and Google in Testing Delivery Drones,” by Jack Nicas, Wall Street Journal, September 25, 2014.

<http://online.wsj.com/articles/deutsche-post-dhl-to-deliver-medicine-via-drone-1411576151>

“Drones for moviemaking win FAA approval,” by Associated Press, The Washington Post, September 25, 2014.

[http://www.washingtonpost.com/business/faa-expected-to-approve-drones-for-movie-making/2014/09/24/f824b64a-4458-11e4-8042-aaff1640082e\\_story.html](http://www.washingtonpost.com/business/faa-expected-to-approve-drones-for-movie-making/2014/09/24/f824b64a-4458-11e4-8042-aaff1640082e_story.html)

“FAA said to be planning to let filmmakers operate drones in populated areas,” by Craig, Whitlock, The Washington Post, September 25, 2014.

[http://www.washingtonpost.com/world/national-security/faa-said-to-be-planning-to-let-filmmakers-operate-drones/2014/09/24/cea7bc60-4415-11e4-b437-1a7368204804\\_story.html](http://www.washingtonpost.com/world/national-security/faa-said-to-be-planning-to-let-filmmakers-operate-drones/2014/09/24/cea7bc60-4415-11e4-b437-1a7368204804_story.html)

“The FAA is letting Hollywood use drones — and more exemptions are on the way,” by Brian Fung, The Washington Post, September 25, 2014.

<http://www.washingtonpost.com/blogs/the-switch/wp/2014/09/25/the-faa-is-letting-hollywood-use-drones-and-more-exemptions-are-on-the-way/>

“The Volokh Conspiracy: Drones and laws of general applicability,” by Michael Berry and Nabiha Syed, Blog hosted by the Washington Post, September 25, 2014.

<http://www.washingtonpost.com/news/volokh-conspiracy/wp/2014/09/25/drones-and-laws-of-general-applicability/>

“The Volokh Conspiracy: State legislation governing private drone Use,” by Michael Berry and Nabiha Syed, Blog hosted by the Washington Post, September 25, 2014.

<http://www.washingtonpost.com/news/volokh-conspiracy/wp/2014/09/25/state-legislation-governing-private-drone-use/>

“Big fine for crashing drone in Yellowstone spring,” by Associated Press, The Washington Post, September 25, 2014.

[http://www.washingtonpost.com/national/big-fine-for-crashing-drone-in-yellowstone-spring/2014/09/25/c92d086a-44f8-11e4-8042-aaff1640082e\\_story.html](http://www.washingtonpost.com/national/big-fine-for-crashing-drone-in-yellowstone-spring/2014/09/25/c92d086a-44f8-11e4-8042-aaff1640082e_story.html)

“The Volokh Conspiracy: Litigation pushes back against FAA enforcement,” by Michael Berry and Nabiha Syed , Blog hosted by the Washington Post, September 24, 2014.  
<http://www.washingtonpost.com/news/volokh-conspiracy/wp/2014/09/24/litigation-pushes-back-against-faa-enforcement/>

“The Volokh Conspiracy: The FAA’s slow move to regulate domestic drones,” by Michael Berry and Nabiha Syed, Blog hosted by the Washington Post, September 24, 2014.  
<http://www.washingtonpost.com/news/volokh-conspiracy/wp/2014/09/24/the-faas-slow-move-to-regulate-domestic-drones/>

“Argentina uses drones to spot wealthy tax evaders,” by Associated Press, The Washington Post, September 24, 2014.  
[http://www.washingtonpost.com/world/the\\_americas/argentina-uses-drones-to-spot-wealthy-tax-evaders/2014/09/24/ac9582be-443e-11e4-8042-aaff1640082e\\_story.html](http://www.washingtonpost.com/world/the_americas/argentina-uses-drones-to-spot-wealthy-tax-evaders/2014/09/24/ac9582be-443e-11e4-8042-aaff1640082e_story.html)

“Drones left out of air traffic plans,” by Associated Press, The Washington Post, September 24, 2014.  
[http://www.washingtonpost.com/politics/ap-exclusive-drones-left-out-of-air-traffic-plans/2014/09/24/51f3525a-4416-11e4-8042-aaff1640082e\\_story.html](http://www.washingtonpost.com/politics/ap-exclusive-drones-left-out-of-air-traffic-plans/2014/09/24/51f3525a-4416-11e4-8042-aaff1640082e_story.html)

“Island to get 1st German drone delivery service,” by Associated Press, The Washington Post, September 24, 2014.  
[http://www.washingtonpost.com/world/europe/island-to-get-1st-german-drone-delivery-service/2014/09/24/62f2aee0-43ec-11e4-8042-aaff1640082e\\_story.html](http://www.washingtonpost.com/world/europe/island-to-get-1st-german-drone-delivery-service/2014/09/24/62f2aee0-43ec-11e4-8042-aaff1640082e_story.html)

“The Volokh Conspiracy: Philosophical approaches to drone regulation,” by Michael Berry and Nabiha Syed, blog hosted by the Washington Post, September 23, 2014.  
<http://www.washingtonpost.com/news/volokh-conspiracy/wp/2014/09/23/philosophical-approaches-to-drone-regulation/>

“Aquarium uses drone footage to track killer whales (Video),” The Washington Post, September 23, 2014.  
[http://www.washingtonpost.com/posttv/national/health-science/aquarium-uses-drone-footage-to-track-killer-whales/2014/09/23/1fd72354-433b-11e4-8042-aaff1640082e\\_video.html](http://www.washingtonpost.com/posttv/national/health-science/aquarium-uses-drone-footage-to-track-killer-whales/2014/09/23/1fd72354-433b-11e4-8042-aaff1640082e_video.html)

“The Volokh Conspiracy: An introduction to journo-drones,” by Eugene Volokh, blog hosted by the Washington Post, September 22, 2014.  
<http://www.washingtonpost.com/news/volokh-conspiracy/wp/2014/09/22/an-introduction-to-journo-drones/>

“The Volokh Conspiracy: The possible perils of private drones,” by Michael Berry and Nabiha Syed, blog hosted by the Washington Post, September 22, 2014.  
<http://www.washingtonpost.com/news/volokh-conspiracy/wp/2014/09/22/the-possible-perils-of-private-drones/>

“Montgomery County studies possible uses of drones: Could help at fire scenes or with security,” by Bill Turque, The Washington Post (article appeared in the Gazette Newspapers), September 17, 2014.  
<http://www.gazette.net/article/20140917/NEWS/140919211&template=gazette>

“Pressure builds on FAA to release drone rules,” by Jaikumar Vijayan, Computerworld, September 4, 2014.

<http://www.computerworld.com/article/2602902/pressure-builds-on-faa-to-release-drone-rules.html>

“Drone groups challenge FAA definition of hobbyists,” by Bart Jansen, USA Today, August 25, 2014.

<http://www.usatoday.com/story/money/business/2014/08/25/faa-drone-hobbyists-appeals-challenge/14568609/>

“Where Can Drones Fly? Legal Limits Are Up In the Air,” by Sarah Gonzalez, National Public Radio, August 10, 2014.

<http://www.npr.org/2014/08/10/339181964/where-can-drones-fly-legal-limits-are-up-in-the-air>

“Virginia county revives debate about domestic drones: Useful public safety tool grounded over privacy, surveillance concerns,” by Andrea Noble, The Washington Times, July 31, 2014.

<http://www.washingtontimes.com/news/2014/jul/31/law-enforcement-agencies-lament-virginia-drone-use/>

“Unmanned aircraft are latest tool for Montgomery County firefighters,” by Tiffany Arnold, The Gazette Newspapers, June 2, 2014.

<http://www.gazette.net/article/20140602/NEWS/140609975/unmanned-aircraft-are-latest-tool-for-montgomery-county-firefighters&template=gazette>

“Domino's tests drone pizza delivery,” by Julianne Pepitone, CNN Money website, June 4, 2013

<http://money.cnn.com/2013/06/04/technology/innovation/dominos-pizza-drone/>



Federal Aviation Administration

# Unmanned Aircraft Systems

## FAA Grants Exemptions for Commercial UAS Movie and TV Production

([http://www.faa.gov/news/press\\_releases/news\\_story.cfm?newsId=17194](http://www.faa.gov/news/press_releases/news_story.cfm?newsId=17194))

Six companies can now fly small UAS following FAA-approved safety procedures.

([http://www.faa.gov/news/press\\_releases/news\\_story.cfm?newsId=17194](http://www.faa.gov/news/press_releases/news_story.cfm?newsId=17194))

Safety is the FAA's top mission, and the agency maintains the world's safest aviation system. The FAA first authorized use of unmanned aircraft in the National Airspace System (NAS) in 1990.

Today, unmanned aircraft are flying in the NAS under very controlled conditions, performing border and port surveillance by the Department of Homeland Security, helping with scientific research and environmental monitoring by NASA and NOAA, supporting public safety by law enforcement agencies, helping state universities conduct research, and supporting various other missions for public (government) entities. Operations range from ground level to above 50,000 feet, depending on the specific type of aircraft. However, UAS operations are currently not authorized in Class B airspace ([http://www.faa.gov/regulations\\_policies/handbooks\\_manuals/aviation/pilot\\_handbook/media/PHAK%20-%20Chapter%2014.pdf](http://www.faa.gov/regulations_policies/handbooks_manuals/aviation/pilot_handbook/media/PHAK%20-%20Chapter%2014.pdf)) (PDF), which exists over major urban areas and contains the highest density of manned aircraft in the National Airspace System.

## What are the different types of UAS operations?

There are three types of unmanned aircraft system operations: Civil, Public and Model Aircraft.

### • Civil UAS

Obtaining a Special Airworthiness Certificate

([http://www.faa.gov/aircraft/air\\_cert/airworthiness\\_certification/sp\\_awcert/experiment/sac/](http://www.faa.gov/aircraft/air_cert/airworthiness_certification/sp_awcert/experiment/sac/)) in the experimental category for a particular UAS is currently the only way civil operators of unmanned aircraft are accessing the NAS. Experimental certificate regulations preclude carrying people or property for compensation or hire, but do allow operations for research and development, flight and sales demonstrations and crew training. The FAA is working with civilian operators to collect technical and operational data that will help refine the UAS airworthiness certification process. The agency is currently developing a future path for safe integration of civil UAS into the NAS as part of NextGen implementation. Read more about Civil Operations ([civil\\_operations/](#)).

The FAA has been working for several months to implement the provisions of Section 333 ([legislative\\_programs/section\\_333/](#)) of the FAA Modernization and Reform Act of 2012, "Special Rules for Certain Unmanned Aircraft Systems," which will allow for commercial operations in low-risk, controlled environments. Read

[more about Section 333 \(legislative\\_programs/section\\_333/\)](#).

- **Public UAS**

COAs

[\(http://www.faa.gov/about/office\\_org/headquarters\\_offices/ato/service\\_units/systemops/aaim/organizations/uas/coal/\)](http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/systemops/aaim/organizations/uas/coal/) are available to public entities that want to fly a UAS in civil airspace. Common uses today include law enforcement, firefighting, border patrol, disaster relief, search and rescue, military training, and other government operational missions. Applicants make their request through an [online process](#)

[\(http://www.faa.gov/about/office\\_org/headquarters\\_offices/ato/service\\_units/systemops/aaim/organizations/uas/coal/\)](http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/systemops/aaim/organizations/uas/coal/) and the FAA evaluates the proposed operation to see if it can be conducted safely. [Read more about Public Operations \(public\\_operations/\)](#).

- **Model Aircraft**

Recreational use of airspace by model aircraft is covered by [FAA Advisory Circular 91-57](#)

[\(http://www.faa.gov/documentLibrary/media/Advisory\\_Circular/91-57.pdf\)](http://www.faa.gov/documentLibrary/media/Advisory_Circular/91-57.pdf)  (PDF), which generally limits operations for hobby and recreation to below 400 feet, away from airports and air traffic, and within sight of the operator. In June 2014, the FAA published a [Federal Register notice \(media/model\\_aircraft\\_spec\\_rule.pdf\)](#) (PDF) on its interpretation of the statutory special rules for model aircraft in the FAA Modernization and Reform Act of 2012. The law is clear that the FAA may take enforcement action against model aircraft operators who operate their aircraft in a manner that endangers the safety of the national airspace system. In the notice, the FAA explains that this enforcement authority is designed to protect users of the airspace as well as people and property on the ground. [Read the full press release \(http://www.faa.gov/news/press\\_releases/news\\_story.cfm?newsId=16474\)](#). [Read more about Model Aircraft Operations \(publications/model\\_aircraft\\_operators/\)](#).

## What can I do with my model aircraft?

Having fun means flying safely! Hobby or recreational flying doesn't require FAA approval but you must follow safety guidelines. Any other use requires FAA authorization. Here is a list of [Do's and Don'ts for flying model aircraft \(publications/model\\_aircraft\\_operators/\)](#).

## Contact Us (contacts/)

The agency wants the public to know how and when to contact the FAA regarding safety concerns with UAS operations. You can visit the Agency's [Aviation Safety Hotline website \(http://www.faa.gov/contact/safety\\_hotline/\)](#) or call 1-866-835-5322, Option 4.



Federal Aviation Administration

# Busting Myths about the FAA and Unmanned Aircraft

Search: 

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News type: 

**February 26**—There are a lot of misconceptions and misinformation about unmanned aircraft system (UAS) regulations. Here are some common myths and the corresponding facts.

## **Myth #1: The FAA doesn't control airspace below 400 feet**

**Fact**—The FAA is responsible for the safety of U.S. airspace from the ground up. This misperception may originate with the idea that manned aircraft generally must stay at least 500 feet above the ground

## **Myth #2: Commercial UAS flights are OK if I'm over private property and stay below 400 feet.**

**Fact**—The FAA published a [Federal Register notice \(PDF\)](#) in 2007 that clarified the agency's policy: You may not fly a UAS for commercial purposes by claiming that you're operating according to the Model Aircraft guidelines (below 400 feet, 3 miles from an airport, away from populated areas.) Commercial operations are only authorized on a case-by-case basis. A commercial flight requires a certified aircraft, a licensed pilot and operating approval. To date, only one operation has met these criteria, using Insitu's ScanEagle, and authorization was limited to the Arctic. (<http://www.faa.gov/news/updates/?newsId=73981>)

## **Myth #3: Commercial UAS operations are a "gray area" in FAA regulations.**

**Fact**—There are no shades of gray in FAA regulations. Anyone who wants to fly an aircraft—manned or unmanned—in U.S. airspace needs some level of FAA approval. Private sector (civil) users can obtain an experimental airworthiness certificate to conduct research and development, training and flight demonstrations. Commercial UAS operations are limited and require the operator to have certified aircraft and pilots, as well as operating approval. To date, only two UAS models (the Scan Eagle and Aerovironment's Puma) have been certified, and they can only fly in the Arctic. Public entities (federal, state and local governments, and public universities) may apply for a Certificate of Waiver or Authorization (COA)

The FAA reviews and approves UAS operations over densely-populated areas on a case-by-case basis.

Flying model aircraft solely for hobby or recreational reasons does not require FAA approval. However, hobbyists are advised to operate their aircraft in accordance with the agency's model aircraft guidelines (see Advisory Circular 91-57). In the FAA Modernization and Reform Act of 2012 (Public Law 112-95, Sec 336), Congress exempted model aircraft from new rules or regulations provided the aircraft are operated "in accordance with a community-based set of safety guidelines and within the programming of a nationwide community-based organization."

The FAA and the Academy of Model Aeronautics recently signed a first-ever agreement that formalizes a working relationship and establishes a partnership for advancing safe model UAS operations. This agreement also lays the ground work for enacting the model aircraft provisions of Public Law 112-95, Sec 336. Modelers operating under the provisions of P.L. 112-95, Sec 336 must comply with the safety guidelines of a nationwide community-based organization.

**Myth #4: There are too many commercial UAS operations for the FAA to stop.**

**Fact**—The FAA has to prioritize its safety responsibilities, but the agency is monitoring UAS operations closely. Many times, the FAA learns about suspected commercial UAS operations via a complaint from the public or other businesses. The agency occasionally discovers such operations through the news media or postings on internet sites. When the FAA discovers apparent unauthorized UAS operations, the agency has a number of enforcement tools available to address these operations, including a verbal warning, a warning letter, and an order to stop the operation.

**Myth #5: Commercial UAS operations will be OK after September 30, 2015.**

**Fact**—In the 2012 FAA reauthorization legislation, Congress told the FAA to come up with a plan for "safe integration" of UAS by September 30, 2015. Safe integration will be incremental. The agency is still developing regulations, policies and standards that will cover a wide variety of UAS users, and expects to publish a proposed rule for small UAS – under about 55 pounds – later this year. That proposed rule will likely include provisions for commercial operations.

**Myth #6: The FAA is lagging behind other countries in approving commercial drones.**

**Fact** – This comparison is flawed. The United States has the busiest, most complex airspace in the world, including many general aviation aircraft that we must consider when planning UAS integration, because those same airplanes and small UAS may occupy the same airspace.

Developing all the rules and standards we need is a very complex task, and we want to make sure we get it right the first time. We want to strike the right balance of requirements for UAS to help foster growth in an emerging industry with a wide range of potential uses, but also keep all airspace users and people on the ground safe.

**Myth #7: The FAA predicts as many as 30,000 drones by 2030.**

**Fact**—That figure is outdated. It was an estimate in the FAA's 2011 Aerospace Forecast. Since then, the agency has refined its prediction to focus on the area of greatest expected growth. The FAA currently estimates as many as 7,500 small commercial UAS may be in use by 2018, assuming the necessary regulations are in place. The number may be updated when the agency publishes the proposed rule on small UAS later this year.

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This page was published at: <http://www.faa.gov/news/updates/?newsId=76240>

# Gazette.Net

Maryland Community News

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*Published: Monday, June 2, 2014*

## **Unmanned aircraft are latest tool for Montgomery County firefighters *by***

*Tiffany Arnold Staff writer*

Pretty soon firefighters in Montgomery County will be getting a little help from above — three unmanned aircraft better known as “drones.”

Montgomery County Fire & Rescue Service purchased three \$999 drones roughly two months ago, around the same time a massive fire caused \$21 million in damage to a Rockville apartment complex under construction on April 1.

“We needed to see where that fire was going,” former Assistant Chief R. Michael Clemens said. “You can’t see it when you’re standing on the ground.”

Clemens retired Thursday as the assistant chief of the MCFRS training academy in Rockville.

Montgomery County’s new Wi-Fi-enabled drones can soar at least 600 feet in the air and can transmit images to iPads and iPhones, according to MCFRS spokesman Pete Piringer.

The footage they capture gives first responders on the ground a more complete look at how a fire is behaving and what a building’s structural conditions are like. “Roof conditions, walls that might push out and kill firefighters,” Clemens said.

Montgomery County’s firefighting drones have yet to be used on an actual fire in the community. Local fire officials said they’ve been practicing with the drones in training exercises, including a disaster preparedness drill staged at Germantown South Recreational Park on May 8.

They couldn’t estimate how long it might be before the drones are ready for real-world use.

For the Rockville fire, responders got an aerial view from a nearby high-rise office building. But drones, Clemens said, would have been a better option.

“Fires change so much on their own and so does building construction,” said Clemens, who was responsible for making the purchase.

“We have to depend on technology to save our guys and women from being killed on a fire,” he said.

The drones could help in situations involving hazardous materials, as well.

"We can fly that thing out with a test strip, bring it back and analyze it, tell us what it is," Clemens said.

The drones also could be used for search and rescue, according to Piringier.

In 2012, Congress told the Federal Aviation Administration to come up with a plan for the safe integration of unmanned aircraft by Sept. 30, 2015. For now, public safety agencies must get FAA approval.

"The obvious thing is public safety," said Les Dorr, a FAA spokesman. "Any object — manned or unmanned — can pose a hazard to people in the air or on the ground."

According to FAA data, there were 545 approvals for drone use as of Dec. 4, 2013.

Door said the most common public uses for drones are for law enforcement, fire fighting, border patrol and disaster relief.

The renewal period for drones is two years, said Alison Duquette, an FAA spokeswoman.

Agencies are initially granted a certificate that allows them to train with the drones. "Which gives them time to get proficient with using the unmanned aircraft," Dorr said.

Once MCFRS can demonstrate its proficiency to the FAA, it would get an operational certificate approval. "Which means they can use the drone in the way they intended to," Dorr said.

Clemens said MCFRS is in the process of obtaining a training certificate.

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