

Project Wing sets gaze on managing traffic in the skies

June 12 2017, by Nancy Owano



Project Wing, under Google parent Alphabet, has passed a crucial multi-drone test, crucial because with drones in the skies one needs to track and manage a wide range of drones simultaneously.

TechRadar reported that "Project Wing staff announced they've [completed](#) a major test organized with the help of the Federal Aviation Administration (FAA) and NASA."

That almost goes without saying is the goal of managing drones: How to keep drones in the sky using a sound air traffic control system. Jamie Condliffe in *MIT Technology Review* said, "a lack of drone traffic control is often cited as one of the biggest barriers facing the adoption of aerial delivery."

What is Project Wing? It's a project developing a delivery system that uses self-flying vehicles. Such a [drone](#) delivery environment could transform the transformation of goods in time.

Recode reported that testing took place at Virginia Tech, where the FAA has set up a test site for [flying](#) drones.

So what was involved in testing?

"Project Wing took part in a set of nationwide tests convened by NASA and the FAA to explore how to manage the growing number of [unmanned aircraft systems](#) (UAS) in the sky," said James Ryan Burgess, co-lead of Project Wing, in the Team at X blog.

Three of the drones were Project Wing's own aircraft, said *Recode*.

Jamie Condliffe in *MIT Technology Review* said that "The experiment used six drones in total. Three belonged to Project Wing, picking up and dropping off packages as though they were making real deliveries. Meanwhile two drones from Intel and a third from Virginia Tech carried out simulated search and rescue missions."

Recode said, "the drones automatically steered away from each other."

Condliffe: "Each aircraft was piloted by its respective owner, wirelessly sharing flight path information with Project Wing's "unmanned aircraft systems Air Traffic Management" software—UTM for short—as it went."

Burgess elaborated on Project Wing's UTM (UAS Air Traffic Management) platform. He listed these as the platform's core elements upon which the team is focusing their efforts: (1) Real-time route planning for UAS (unmanned aircraft systems) that are flying in the same area (2) Notifications to alert operators of unexpected changes in aircraft or route during flight (3) Airspace notifications that allow operators to avoid FAA no-fly zones and safety-sensitive areas. One example might be forest [fires](#).

"[Unmanned](#) traffic management will be particularly critical for UAS operations in urban areas, where the airspace is expected to be more crowded," said an article in Virginia Tech News, and "developing procedures to conduct flights safely in those environments is one of the primary research areas at the Virginia Tech test site."

What's next? Burgess said the team intends to continue to refine the UTM [UAS Air Traffic Management] platform's ability to support more simultaneous flights and navigate environments of greater complexity. He also said they are building the platform to be interoperable with other UTM systems.

David Lumb commented in *Engadget* that "tests like these are promising displays for a future where we'll need a quick-thinking computer megabrain to [track](#) and automatically moderate a sky full of UAVs."

Condliffe said not to expect such systems to immediately usher in widespread delivery drones. "The FAA doesn't expect to finalize its collision-avoidance standards until at least [2019](#)."

Burgess stated in the blog, "Within a few years, Wing and other companies are likely to have fleets with thousands of UAS in the air at any one time, so we'll need systems that can dynamically [route](#) UAS not only around each other, but around manned aircraft, buildings, terrain, weather patterns and special events."

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