SHERROD BROWN
OHIO

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SELECT COMMITTEE ON ETHICS

United States Senate

WASHINGTON, DC 20510

March 21, 2012

The Honorable Ray LaHood
Secretary
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

Dear Secretary LaHood:

I write in regard to the criteria being established to select six Unmanned Aircraft System (UAS) test ranges as established by the National Defense Authorization Act and the Federal Aviation Administration Modernization and Reform Act of 2012.

As you know, Ohio has long been a leader in the aviation and aerospace industries. From the Wright Brothers groundbreaking work in aeronautics at the turn of the 20th Century, to the work currently being done by the private sector and at the Air Force Research Laboratory at Wright-Patterson Air Force Base, Southwest Ohio has always had a strong aviation heritage.

As FAA establishes criteria for selection of the test ranges, it is imperative that: geographic and climatic diversity; built infrastructure; and the ability to leverage existing public-private partnerships are given top priority.

I appreciate your efforts to establish UAS test ranges that meet our nation's needs. UAS's have the potential to greatly enhance response time to forest fires, guard our border, assist in search and rescue efforts, and create efficiencies in the agricultural sector. It is imperative that the site-selection process be tailored to ensure the development of our UAS sector. Regardless of the metrics utilized, I believe that the Greater Dayton area would be an ideal location for one of these UAS test ranges.

Sincerely,

Sherrod Brown

Sherrod Brown
U.S. Senator

United States Senate
WASHINGTON, DC 20510

March 21, 2012

Docket Operations, M-30
U.S. Department of Transportation
1200 New Jersey Avenue SE.,
Room W12-140, West Building Ground Floor
Washington, DC 20590-0001.

Docket Number FAA-2012-0252

In light of our nation's ongoing economic recovery, it is critical that the FAA is a wise steward of taxpayer dollars. This requires that great weight is given to establishing test locations that promote safety and achieve the goals of airspace integration but also maximize returns on investment. This includes existing infrastructure such as: runways and hangars; avionics equipment including radar; proximity to university-affiliated research; workforce-training; and existing relationships with the Department of Defense and NASA.

Climatic and geographic diversity are critical elements of radar and sensor systems characterizations of small and mid-sized Unmanned Aircraft Systems (UASs). The ability to sense and avoid, sense and identify, or sense small and mid-sized uncooperative or unfriendly UASs cannot be accomplished only in desert landscapes as has typically been done in the past.

UASs will be used in a wide-array of climates and landscapes. Accordingly, testing must occur in a variety of climates and landscapes. Radar and advanced sensor characterization, cataloguing, and identification techniques must also be developed for different landscapes including the wooded, vegetated, and agricultural landscapes and urban infrastructure typical to the Northeast and North-Central United States. Only with testing in a wide array of climates – in temperate, dry, wet, and snowy conditions – can definitive characterizations take place.

It would also be advantageous to utilize tunable research radars in a variety of bands to accurately identify small, penetrating UASs in the high value locations of the Eastern United States. Additionally, it is my understanding that basic sense and avoid technologies may be impacted by radar absorbent, or Infrared/ultraviolet (IR/UV) absorbent landscape behind or under the UAS.

Similarly, congestion and interference among surveillance sensors, command and control radio links, and communications links between remote pilots and air traffic controllers are impacted in areas of high saturation of radio frequency interference (RFI). Such saturation exists east of the Mississippi River and must be a consideration in any test environment design and selection.

This type of work is an absolutely critical component of UAS test site selection criteria, and will have long-ranging impacts for our national security, homeland defense, and airborne public safety. As such, this work should take place in close proximity to recognized Department of Defense research capability and radar/EO/IR development systems, such as those located at the Air Force Research Laboratory.

Sherrod Brown

Sherrod Brown
United States Senator
713 Hart Senate Office Building
Washington, DC 20510