UAS Integration Challenges
From a Test Site Perspective

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NEW YORK UAS TEST SITE OPERATING AREA

60 NM Service Volume for BVLOS testing
15,000 square miles—mostly sparsely populated
UAS will be expected to meet certification standards and operate safely with traditional air traffic and ATM services. (Example Use Case: Communication Relay / Cargo Transport)

These UAS will operate at altitudes below critical NAS infrastructure and will need to routinely integrate with both cooperative and non-cooperative aircraft. (Example Use Case: Infrastructure Surveillance)

Low altitude rural: Low risk BVLOS rural operations with or without aviation services. (Example Use Case: Agriculture)

Low altitude urban: Must interface with dense controlled air traffic environments and operate safely in uncontrolled airspace. (Example Use Case: Traffic Monitoring/Package Delivery)

Source: NASA
New York Test Site Focus Area

IFR-equipped UAS operating between airport terminal areas, in VFR-like airspace, and in IFR-like airspace (Support for RTCA SC-228 MOPS)
Path to Full UAS Integration

Source: FAA
New York’s Approach to GBDAA

As an FAA-designated national UAS test site, the New York UAS Test Site operates in the NAS as a public entity.

Our approach uses ground-based air traffic surveillance to gather data independent of ANSP surveillance and data distribution.
Six Multilateration Remote Units (RUs) Located at Griffiss ATCT and Oneida County Sites for 911 Emergency Communications
The Integration Challenge in Three Steps

• Dedicated precision surveillance for data collection and analysis
• Live Virtual Constructive–Distributed Environment (LVC-DE) and data delivery for collaboration with other test facilities
• Use ground-based detect and avoid (DAA) for routine UAS terminal area operations