

Board Report:

**Baker-Polito Administration & Congressman Neal Visit
Barnes Air National Guard Base to Celebrate New Main
Gate & Taxiway Project, Paris Aviation Conference, FAA
Congressional Workshop on Drone Safety & 2022 Annual
NASAO Convention & Tradeshow, Greenville SC**

October 19, 2022

Presented to:

■ Board of Directors

Presented by:

■ Aeronautics Division

➤ Dr. Jeff DeCarlo

Baker-Polito Administration and Congressman Neal Visit Barnes Air National Guard Base to Celebrate New Main Gate and Taxiway Project



- On Sep 27th, Governor Baker joined Congressman Richard Neal and other state & local officials at Barnes Air National Guard Base to celebrate the groundbreaking of a new main gate and a ribbon cutting for Taxiway Sierra
- The Taxiway was funded through a \$4.7M Military Bond Bill authorization. The taxiway and gate improvements will support economic growth in western Massachusetts
- Capital funds expand the airport's mobility, parking capacity, and enhance its operational capabilities
- The new taxiway at Westfield-Barnes Regional Airport will assist Air Traffic Control in reducing delays for departing aircraft for both military and civilian planes that share the airport's two runways



Officials celebrate groundbreaking for new gate



Ribbon cutting for Taxiway Sierra



Taxiway Sierra Pavement Reconstruction

Paris Aviation Conference: Urban Transportation of Passengers by eVTOL



3 different Markets with different Vehicles requirements

Safety sets a competitive barrier to market entry. We provide the highest safety. This leads to early certification.

URBAN
MULTI-ROTOR
VOLOCIITY
Highest safety (D¹)
Lowest complexity
Lowest noise in the industry
Efficient Urban & Suburban City Concept
eHang, Airbus

SUB-URBAN AND INTER-CITY
LIFT & CRUISE
VOLOCONNECT
Highest safety (D¹)
Moderate complexity
Moderate noise at take-off
Expanding Range at Similar Efficiency
Beta, Eve, Wisk, Vertical, Archer

INTER-CITY AND REGIONAL
TILT-ROTOR OR TILT-WING
Lower safety (D² at least)
High complexity
Larger noise output
High Energy Requirements to Take-off Best Landing
Lilium, Joby

Volocopter | September 2022 | 4

URBAN TRANSPORTATION OF PASSENGERS BY eVTOL

21 & 22 September 2022
DGAC - Paris
(Duplex with ENAC - Toulouse)

With the support of

AIRBUS
dgac
ENAC
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THALES

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- Administrator DeCarlo was invited by the Urban Air Mobility Initiative Cities Community (UIC2) of the EU Smart Cities (MA is a founding Int'l member), and as Chairman, by the WEF Advanced and Urban Air Mobility Cities and Regions Coalition
- Air and Space Academy Conference held at the Directorate General of Civil Aviation HQ
- France planning flight demonstrations at the 2024 Olympics of new next generation, green, quiet, and clean eVTOL¹ aircraft
- Participants from around the world, incl. USA - e.g., NASA, MIT, Massachusetts, and MassAutonomy
- EASA² is moving positively with respect to AAM, reducing regulatory approval timeline by 80%

3 Note 1: eVTOL – Electric Vertical Takeoff and Landing aircraft
Note 2: EASA – European Union Aviation Safety Agency (Europe's version of the FAA)

Paris - AAM Sandbox - Pontoise Airport (20-mi N of Paris)



- The Paris region AAM (Advanced Air Mobility) Sandbox is readying next generation aircraft demonstrations for the Paris 2024 Olympics
- Like Massachusetts, efforts in the Paris region include bringing together industry, academia, government, funders, and development organizations to advance the state of the art in multi-domain mobility, incl. air, surface, and maritime options
- The Paris Transit agency (RATP) is working with Airports' owner/operator (Groupe ADP) – RATP is fully committed to the seamless integration of air operations with other traditional and new surface and air mobility options (multi-modal mobility)
- Senior leaders from across the globe included the FAA Paris Attache' – who is the former FAA Northeast Regional Administrator who is very familiar with the Commonwealth of Massachusetts's advanced aviation planning and innovation efforts



Administrator DeCarlo flanked by officials from the FAA (attaché) and Groupe ADP (owner-operator of Paris region airports)



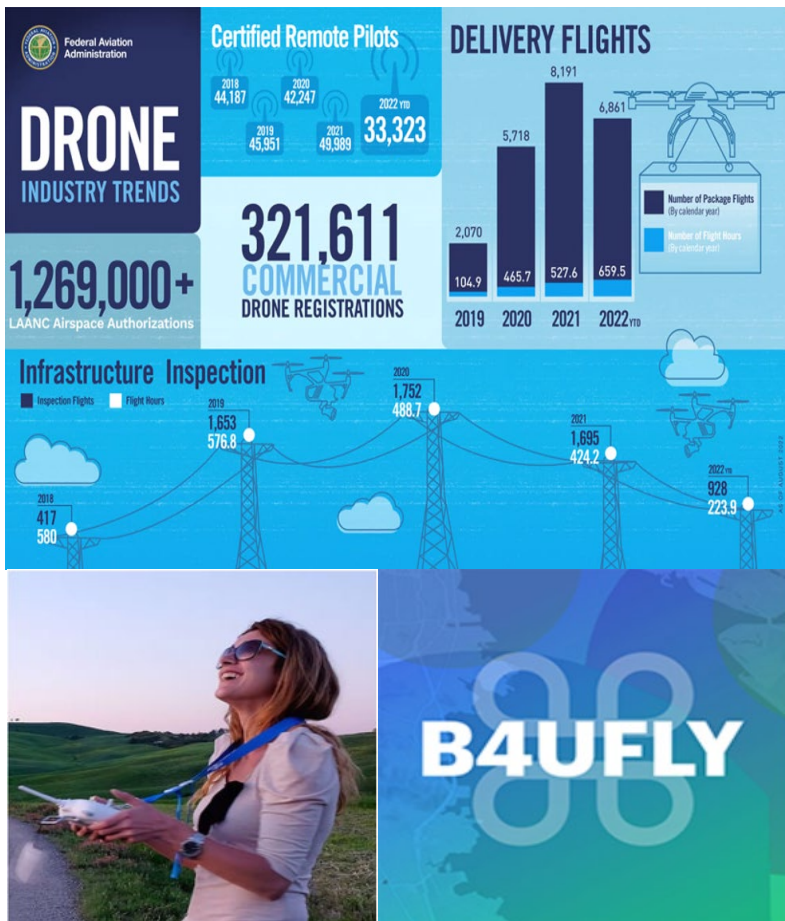
Groupe ADP, RATP Group, with the support of the Paris Region, the DGAC (French Civil Aviation Authority), and the EASA (European Union Aviation Safety Agency) have teamed up to structure an ecosystem for Advanced Air Mobility in the Paris Region. They brought together leading industrials and international start-ups alongside major academic and research institutions to cover the entire AAM value chain and launch the first e-VTOL flights for the Olympic and Paralympic Games in 2024.



Volocopter eVTOL Electric Vertical Takeoff & Landing aircraft



FAA Holds Congressional Workshop on Drone Safety



- The FAA NE Region held a congressional workshop on Uncrewed Aircraft Systems (UAS) also known as Drones on 9/22/22. The workshop focused on safety and the small UAS Rule (14 CFR Part 107)
- FAA Part 107 is the first rule for aircraft <55 lbs
- Commercial, hobby, and governmental operators can operate under this rule as of 8/29/16
- Part 107 amendments in 2021 permit routine operations:
 - Over people (if regulatory requirements are met)
 - Over moving vehicles &
 - At night under certain conditions
- FAA provided the following safety guidelines for UAS operators:
 - Register your drone and take “The Recreational UAS Safety Test” (TRUST)
 - Keep the drone within your visual line of sight or use a visual observer who is with you during flight operations
 - Fly at or below 400’ in uncontrolled airspace
 - Never operate a drone in a dangerous manner &
 - Follow the safety guidelines of a community-based organization
- Further guidance can be found on the following websites:
 - <https://www.faa.gov/uas/recreationalflyers>
 - <https://knowbeforeyoufly.org>

2022 National Association of State Aviation Officials (NASAO) Convention & Tradeshow – Greenville, SC



- The 2022 NASAO Annual Convention and Tradeshow was held in Greenville, SC from 9/10th to 9/14th
- The theme of the convention was “Future Forward” which focused on the future state of aviation including the integration of drones into national airspace
- Aeronautics Deputy Administrator, Denise Garcia was selected to serve on the 2022-2023 NASAO board to represent the NE Region, succeeding Administrator DeCarlo’s on his 7-year board term
- Staff met with the FAA Regional Administrators to discuss state aviation issues including funding limitations, timeliness of grant awards and increases to Passenger Facility Charges (PFCs)
- The Infrastructure Investment & Jobs Act/Bilateral Infrastructure Law (IIJA/BIL) implementation and FAA reauthorization were major topics of discussions during many of the sessions

**FUTURE
FORWARD**

NASAO ANNUAL CONVENTION AND TRADE SHOW



James Stevens (SC) conversing with
Conference Attendees

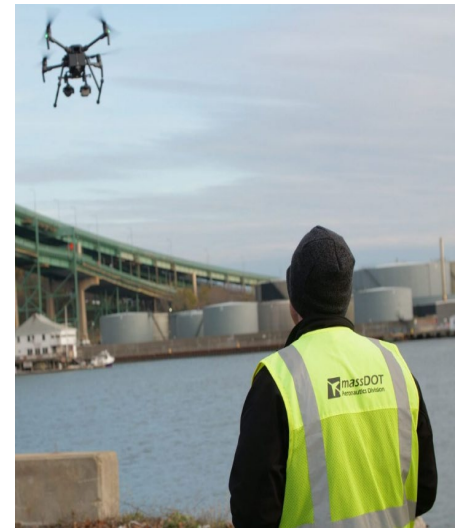
2022 National Association of State Aviation Officials (NASAO) Convention & Tradeshow – Greenville, SC



- MassDOT met with State/FAA officials to collaborate on the integration of crewed/uncrewed aircraft operating within shared airspace
- Sessions included a review of federal/state policies for Uncrewed Aircraft Systems (UAS), Advanced Air Mobility (AAM) and state initiatives in creating governor task forces for implementation of proposed policy recommendations
- During a state overview of activities and opportunities associated with new UAS technologies, NASAO recognized Massachusetts for their robust UAS program
- Aeronautics Drone Program provides inspection and data analysis for MassDOT's transportation assets while supporting long-range state of good repair operations for air and surface transportation
- Additionally, the services provided by the Aeronautics drone team are available to state/federal emergency management organizations and to all state agencies in need of their expertise and resources

FUTURE FORWARD

NASAO ANNUAL CONVENTION AND TRADE SHOW



MassDOT UAS bridge inspection