



February 2, 2023

CALL AND NOTICE OF A REGULAR MEETING OF THE
LEGAL, GOVERNMENT AND ENVIRONMENTAL AFFAIRS COMMITTEE
OF THE
BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY

NOTICE is hereby given that a regular meeting of the Legal, Government and Environmental Affairs Committee will be held Monday, February 6, 2023, at 9:30 a.m., or immediately following the Commission meeting, in the Burbank Room of Hollywood Burbank Airport, 2627 N. Hollywood Way, Burbank, California 91505.

In addition to attending the meeting in public, members of the public may observe the meeting telephonically and may offer comment in real time through the following number:

(701) 802-5334

Access Code: 2451017#

Terri Williams, Board Secretary
Burbank-Glendale-Pasadena Airport Authority

REGULAR MEETING
OF THE
LEGAL, GOVERNMENT AND ENVIRONMENTAL AFFAIRS COMMITTEE

Burbank Room
Monday, February 6, 2023
9:30 a.m., or Immediately Following
the Conclusion of the
Commission Meeting

As a result of the convening of this meeting of the Legal, Government and Environmental Affairs Committee, each Committee member in attendance is entitled to receive and shall be provided \$200.



The public comment period is the opportunity for members of the public to address the Committee on agenda items and on airport-related non-agenda matters that are within the Committee's subject matter jurisdiction. At the discretion of the presiding officer, public comment on an agenda item may be presented when that item is reached.

Members of the public are requested to observe the following decorum when attending or participating in meetings of the Committee:

- *Turn off cellular telephones and pagers.*
- *Refrain from disorderly or boisterous conduct, including loud, threatening, profane, or abusive language, clapping, whistling, stamping, or other acts that disrupt or otherwise render unfeasible the orderly conduct of the meeting.*
- *If you desire to address the Committee during the public comment period, fill out a speaker request card and present it to the Board Secretary.*
- *Confine remarks to agenda items or to airport-related non-agenda matters that are within the Committee's subject matter jurisdiction.*
- *Limit comments to three minutes or to such other period of time as may be specified by the presiding officer.*



The following activities are prohibited:

- *Allocation of speaker time to another person.*
- *Video presentations requiring use of Authority equipment.*



Any disclosable public records related to an open session item on a regular meeting agenda and distributed by the Authority to the Committee less than 72 hours prior to that meeting are available for public inspection at Hollywood Burbank Airport (2627 N. Hollywood Way, Burbank) in the administrative office during normal business hours.



In accordance with the Americans with Disabilities Act of 1990, if you require a disability-related modification or accommodation to attend or participate in this meeting, including auxiliary aids or services, please call the Board Secretary at (818) 840-8840 at least 48 hours prior to the meeting.

A G E N D A

Monday, February 6, 2023

1. Roll Call
2. Staff Announcement: AB 23
3. Approval of Agenda
4. Public Comment
5. Approval of Minutes
 - a. December 19, 2022 *[See page 1]*
6. Items for Information
 - a. Electric Vertical Take-Off and Landing Aircraft *[See page 3]*

Progress in a new category of aircraft and potential disruption of the current air and ground transportation model has generated significant interest from private industry and launched a form of air transportation commonly termed Urban Air Mobility (“UAM”). The various types of aircraft involved are often referred to as Electric Vertical Take-Off and Landing (“eVTOL”). These new designs have the potential to enhance mobility throughout metropolitan areas but may result in unanticipated demand effects for airports and communities.
 - b. Committee Pending Items *[See page 6]*
7. Adjournment

**MINUTES OF THE REGULAR MEETING OF THE
LEGAL, GOVERNMENT AND ENVIRONMENTAL AFFAIRS COMMITTEE
BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY**

MONDAY, DECEMBER 19, 2022

A regular meeting of the Legal, Government and Environmental Affairs Committee was called to order on this date in the Burbank Room, 2627 N. Hollywood Way, Burbank, California, at 12:40 p.m., by Commissioner Williams.

1. ROLL CALL

Present:	Commissioners Williams (via teleconference), Dyson and Najarian
Absent:	None
Also Present:	Staff: Frank Miller, Executive Director; Patrick Lammerding, Deputy Executive Director, Planning and Development; Maggie Martinez, Director, Noise and Environmental Affairs Authority Counsel: Terence R. Boga of Richards, Watson & Gershon

2. Staff Announcement: AB 23

The Assistant Board Secretary announced that, as a result of the convening of this meeting of the Legal, Government and Environmental Affairs Committee, each Committee member in attendance is entitled to receive and shall be provided \$200.

3. Approval of Agenda

Commissioner Najarian moved approval of the agenda, seconded by Commissioner Dyson. There being no objection, a voice vote was taken to accommodate the Commissioner participating via teleconference. The motion was approved (3-0).

4. Public Comment

There were no public comments.

5. Approval of Minutes

a. November 21, 2022

A draft copy of the November 21, 2022, minutes was included in the agenda packet for review and approval.

Motion

Commissioner Najarian moved approval of the minutes of the November 21, 2022 meeting, seconded by Commissioner Dyson.

Motion Approved

There being no objection, a voice vote was taken to accommodate the Commissioner participating via teleconference. The motion was approved (3-0).

6. Items for Discussion

**a. Carbon Offset Program
John Wayne Airport**

Staff provided information regarding a carbon offset program offered by Fixed Based Operator (“FBO”) Clay Lacy Aviation at John Wayne Airport. Additionally, Staff included information of the ongoing sustainability programs currently being undertaken by FBOs that operate at Hollywood Burbank Airport.

7. Items for Information

a. Committee Pending Items

The Committee had no questions or comments regarding this item.

8. Adjournment

There being no further business, the meeting adjourned at 12:52 p.m.

**STAFF REPORT PRESENTED TO THE
BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY
LEGAL, GOVERNMENT AND ENVIRONMENTAL AFFAIRS COMMITTEE
FEBRUARY 6, 2023**

ELECTRIC VERTICAL TAKE-OFF AND LANDING AIRCRAFT

Presented by Patrick Lammerding
Deputy Executive Director, Planning and Development

SUMMARY

Progress in a new category of aircraft and potential disruption of the current air and ground transportation model has generated significant interest from private industry and launched a form of air transportation commonly termed Urban Air Mobility (“UAM”). The various types of aircraft involved are often referred to as Electric Vertical Take-Off and Landing (“eVTOL”). These new designs have the potential to enhance mobility throughout metropolitan areas but may result in unanticipated demand effects for airports and communities.

eVTOL Aircraft Types

The aircraft typically included in the industry term eVTOL include:

- Helicopters- electric versions of traditional rotorcraft designs.
- Multicopters- these use multiple rotors usually positioned in a radial fashion on the end of arms. Vehicle movement is controlled by varying the speed of the rotors independently.
- Vectored thrust/tilt rotor/tilt duct- the thrust generating components are moveable or thrust can be otherwise redirected in order to control the orientation and direction of movement of the vehicle.
- Tilt wing/augmented lift- The aircraft uses a wing that adjusts its angle on the aircraft through phases of flight, usually with motors fixed to the wing.
- Lift and Cruise- separate thrust components used for vertical and horizontal flight. Autogyros would also fall into this group.
- Hybrids of these and/or traditional fixed-wing and rotorcraft

Earliest Potential Market Entrants

In December 2020, Uber announced that its eVTOL program, called “Elevate”, will be acquired by Joby Aviation. Joby’s S4 tilt-rotor aircraft is expected to complete FAA certification in 2024 and begin real-world operations in 2025.

Among the numerous eVTOL startups there are other designs that appear to be proceeding in their development. These include the Archer Aviation Midnight which has received a substantial order from United Airlines. Also receiving increasing orders is Eve, a spin-off of Embraer, a Brazilian aircraft manufacturer known for their commonly used regional air carrier aircraft.

Powered-Lift

The Joby S4 and other proposed near-to-market aircraft use a tilt-rotor design which is defined by the Federal Aviation Administration (“FAA”) as a “powered-lift” category of aircraft. To date, the FAA has not certified any powered-lift category aircraft for civilian use. The FAA initially proposed to certify these aircraft under Part 23 in the category of light aircraft. In May 2022 the FAA changed direction and stated that they intend to certify eVTOLs as “Powered-Lift” under Part 21.17(b). The FAA is expected to publish a Special Federal Aviation Regulation in 2024 to describe the certification requirements of powered-lift category aircraft. The updated regulation will also add the term “powered-lift” to other regulations, such as pilot certification, where today only “airplane” and “rotorcraft” are used.

Community Acceptance

The use of multiple electric motors with smaller rotors and lower blade tip speeds differentiates the eVTOL designs from traditional helicopter designs and likely lowers the decibel level generated by the aircraft. However, the noise signature of these aircraft is different than what communities are acclimated to and could introduce a new perceived level of annoyance regardless of the lower decibel level.

Acceptance at the population scale will rely heavily on the perceived community benefit. If the eVTOL industry is able to meaningfully apply principles of equity, accessibility, and affordability broadly to a population, and not just to the most affluent, then the acceptance of noise and other potential annoyances could be minimized. This presents a challenge to a market segment currently filled by helicopters which are not priced for the largest economic demographic in most metropolitan areas.

Community integration will also be a critical task for the eVTOL operators. Integration efforts will likely require increased participation from a broad group of stakeholders, such as local government bodies where eVTOL service is to begin, public transit agencies, community organizations, and metropolitan planning organizations. These stakeholders will be in addition to traditional aviation stakeholders, such as the FAA and airport operators in areas where eVTOL service is to begin. The airport’s goal is proper coordination with both the operator and the FAA to determine the lowest impact departure and arrival procedures, hours of operation, and advanced public notification of the start of the operations, whereas community goals may include balancing economic benefits against noise, visual, or privacy-related concerns.

Heliports and Vertiports

A dedicated heliport is not required for rotorcraft operations on an existing airport. The proposed operation of eVTOL aircraft includes off-airport arrivals and departures where a heliport or vertiport would need to be installed to FAA design standards. It is possible that an existing airport that experiences a dramatic influx in these types of operations due to the introduction of eVTOL aircraft may benefit from pursuing construction of a heliport or vertiport on or adjacent to the airport in order to manage these operations and potentially to better connect passengers to parking and ground transportation facilities or airline terminal connections.

Airports used by eVTOLs will need to assess the operational demand and space availability in planning for an on-site heliport or vertiport facilities. Currently, the nature of the proposed eVTOL service would require the same passenger screening as an air carrier operation. This would likely place the first eVTOL operations in portions of the airport that are within the secured area of the airport, such as where general aviation operations occur.

Heliports and Vertiports may also be constructed as stand-alone facilities not associated with an airport. Under a scenario where UAM services achieve viability as a mode for intra-regional circulation (as an extension of, or replacement for, current TNC services such as Uber and Lyft), there may be significant demand for heliports and vertiports located within the urban environment to facilitate direct service to one's destination. Existing heliports would be usable for eVTOLs, although most helicopter landing areas, such as on high-rise roof-tops, are for emergency or infrequent use and would be unsuitable for serving significant passenger demand.

Conclusions

The public and industry interest in increased mobility by a new type of aircraft is high at the moment. The potential for eVTOLs to become a viable transportation mode in metropolitan areas exists but is contingent on the development of the technology, new regulatory guidance from the FAA, and community acceptance. Recent progress has been made in all three of these areas, but it is not possible at this time to provide a forecast of the timeframe for this service to begin, the level of demand for the service, or the long-range impacts on airports.

**BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY
LEGAL, GOVERNMENT AND ENVIRONMENTAL AFFAIRS COMMITTEE
FEBRUARY 6, 2023**

COMMITTEE PENDING ITEMS

Future

1. RITC Art in Public Places
2. AQIP MOU Report
3. Airport Rules and Regulations Revisions
4. Landscape Contractor Equipment Update