Guest Column: Urban air mobility

By **Stathis Kefallonitis** on | Aviation Trends

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Some voices are calling for drastic changes in air transport in order to minimize and offset emissions as well as limit our carbon footprint. Environmental leaders highlight that air travel is not sustainable. Some talk about “flight-shaming.” Several critics even call for a ban on air travel.

Let’s think twice about this. No one in the air transport industry wants to be responsible for increased emissions, noise level and congested traffic. In fact, air transport and the regulatory bodies have, and will continue, to invest heavily in making travel more sustainable than ever before. Aircraft manufactured using lighter composite materials make air frames lighter. Engines are more fuel efficient, the increased attention to biofuels are among the sustainable practices that are in place.

Although air travel is responsible for an approximately 2 percent of global carbon emissions, it is still among those industries that do the most to minimize its impact. In fact, air transport is among the most entrepreneurial and innovative industries. Yet more things remain to be done. So far, travelers

have taken action and do the following to minimize their carbon footprint:

- select direct routes to minimize emissions (most emissions are caused during take-off)
- investigate the type of aircraft used (newer aircraft tend to be more fuel efficient)
- become an efficient packer (only pack the absolute necessities to minimize the weight of luggage)

The opportunity – what's coming next

Air travel is inevitable and will not go away. Yet, passengers are more adept in changing their flying and commuting habits.

Electric cars and public transportation are here to stay. Slowly we start seeing other electric powered means of transportation. The range varies from electric powered tankers to electric powered aircraft.

Residents in cities where there are traffic challenges are always looking for opportunities to keep mobile. Looking closely at air traffic patterns, we see that a large majority of air travel is short haul. That's where the need for urban air mobility (UAB) is. This is not a new concept but as commuters and passengers are more sensitive to sustainability and efficient travel, opportunities emerge.

A few years back *Solar Impulse 2* demonstrated what could be possible in the future. New and improved composite material, electric motors and new technologies are providing room for new aircraft designs.

Disruptive innovators like Uber and Lyft have changed the way that we think about going places. Culture change is inevitable as well as offering alternative options of travel. This makes new ways of travel more marketable.

Just the way that we have adapted our way of thinking regarding rideshares, we may be able to do so in other means of transportation such as urban air travel. An increasing number of passengers are keen to ridesharing and other greener options of commuting from one location to another. Providing flexible commuting options for driving distances of about two to three hours can create a new travel category. Emerging data shows that an increasing number of commuters would consider flight-share in short-distance flights. If we add to the mix safety, convenience and reduced carbon footprint, then we have a winning combination.

Engineers and researchers are working diligently in shaping the future of air travel. Changing mindsets in air travel are exploring hybrid and electric aircraft, multicopters and passenger drones.

EmbraerX, City Airbus, Volocopter, EHang, Ampaire, Joby are among a few companies that are testing new flying machines and aircraft. Airlines, such as Harbour Air Seaplanes, are heavily investing in electric aircraft and shaping their operations around them. A lot remains to be done until we can book a flight on and start seeing electric aircraft buzzing in the skies. One crucial element for the success of urban air travel is educating travelers and shifting their way of thinking.

The EEL aircraft is a startup concept from Ampaire in Hawthorne, California

Changing mindsets

Besides creating trends such as urban air travel, the industry truly cares about creating more options for passengers. Corporate diversity that respects traveler values yet is also credible and adaptable is key.
Innovation and entrepreneurship with regards to design, quality and reliability are essential. Commuter and passenger engagement as a means of increasing affinity could help strengthen loyalty.

With the help of psychologists and behavioral scientists, we understand that passengers are good in identifying patterns and create mental summaries of these. If these patterns are emotionally engaging, there is a higher the likelihood that they will remember them. The more vivid the pattern, the stronger the recall.

Urban air travel needs to be a game-changer if it is destined to succeed. All steps of the passenger journey need to be examined carefully. The entire travel process needs to communicate clear value. Having a truly sustainable travel experience must translate to safety, caring for the environment, saving time, being flexible and adaptable (able to change plans).

The momentum and interest around electric aircraft shows the need and the availability of technological means to reach the goal of urban air travel. These are truly exciting times. What is yet to be determined is continuous incentives to drive these attempts to fruition and investment. Investment both in terms of generating capital to support the development of new material and technology and the creation of a memorable and valuable travel journey. Finally, what will seal the deal is how this new air travel means will be communicated and how it will be embraced by the public.