Urban Upheaval: The Revolution Could Arrive Sooner Than Expected

Source: Aviation Week Network, August 20, 2019

In a wide-ranging article on urban air mobility (UAM), Dr. Patrick Veillette explores the future inner-city air transportation and the many challenges this rapidly developing field faces; not the least of which is community concerns about aircraft noise. Dr. Veillette notes that many cities, including Washington, D.C., currently prohibit the establishment of helicopter land areas out of concern for noise impacts. He indicates that many UAM proponents are aware of this challenge and are planning on using aircraft that are substantially quieter than today's helicopters. He states, "Proponents envision a network of compact. electric aircraft that take off and land vertically (eVTOL) to facilitate rapid, reliable transport between suburbs and cities, and, ultimately, within the city limits themselves. Such vehicles . . . are expected to be a magnitude quieter, safer, more affordable and environmentally friendly than helicopters operating today."

Uber's UAM subsidiary, Uber Elevate, is planning noise reduction into the design of its aircraft. The article notes, "Uber Elevate maintains that eVTOL aircraft should emit no more than half the noise of a medium-size truck passing a residence (75-80 dBA

at 50 ft.). According to an Uber Elevate white paper, a reasonable goal for an eVTOL is to generate no more than 67 dBA at ground level when flying at 250 ft. AGL, or approximately the same as a Toyota Prius when passing within 25 ft. of a listener at 35 mph."

Airbus Plays Long Game To Bring Urban Air Mobility Market to Fruition

Source: AlNonline, August 26, 2019

European airframe manufacturer Airbus is carefully examining its options for entering the UAM market and is considering the legal, environmental, and social implications of these new aircraft in urban environments.

While a number of UAM startups have indicated they will enter the market by 2023, Airbus is taking a longer-term with the expectation of resolving a number of the above-stated challenges before entering the UAM market.

The article notes, "Airbus' extensive research into prospective urban air mobility markets has confirmed that an insistence that the new aircraft don't add to existing levels of air pollution. Noise, "visual pollution," and privacy concerns have also been identified as significant factors in terms of social acceptability."

Airlines Study How All-Electric Aircraft Will Impact Business Models

Source: Aviation Week Network, July 23, 2019

With industry goal of reducing air emissions by 50 percent over 2005 levels by 2050, airlines are evaluating how electric aircraft will impact their business models over the next couple of decades. However, future commercial passenger service on electric aircraft is not that far off, as "California-based electric aircraft company Ampaire. . . plans to begin test flights on a route flown by Hawaiian regional airline Mokulele Airlines by year-end."

Susan Ying, Ampaire's senior vice president for global partnerships, indicated that Ampaire is also looking into conducting test flights in Scottish Islands where the flight distances and energy policies are an ideal location for electric aviation. Ying said, "Over there, they're still operating with a hub-and-spoke model, but what about flights between the islands or between secondary cities on the mainland and the islands? This opens up a lot of opportunities and will really enable the smaller operators."

Ultimately, the airline industry's expectation is that electric aircraft will become viable for passenger service and must be considered when airlines replace their aging fleets.

Japan's NEC shows 'flying car' hovering steadily for minute

Source: AP News, August 5, 2019

The Japanese government is backing private industry research efforts to develop "flying cars" that would be on the market by the 2030s, which is a little over a decade away. In support of these efforts, the Japanese government has built a large test course in Fukushima, Japan, the area devastated by the 2011 tsunami.

On August 5, 2019, Japanese electronics maker NEC hovered a "flying car" for about a minute. Although the flight was brief, the article notes "The goal is to deliver a seamless transition from driving to flight like the world of 'Back to the Future,' although huge hurdles remain such as battery life, the need for regulations and safety concerns."

Noise is also a central concern of the flying car researchers, but they share a common goal with eVTOL aircraft developers, to have much smaller noise footprints than conventional helicopters do today.

In addition using the unmanned flying cars for deliveries, researchers expect they may be used for search and rescue efforts as well.

The LAX/Community Noise Roundtable Aviation Noise News provides a small sample of aircraft noise-related news articles that occur in between the regular Roundtable meetings. Roundtable members are encouraged to review their complimentary issues of Airport Noise Report between each meeting to stay fully abreast of aircraft noise matters. Some articles listed in this Aviation Noise News summary may require a subscription.