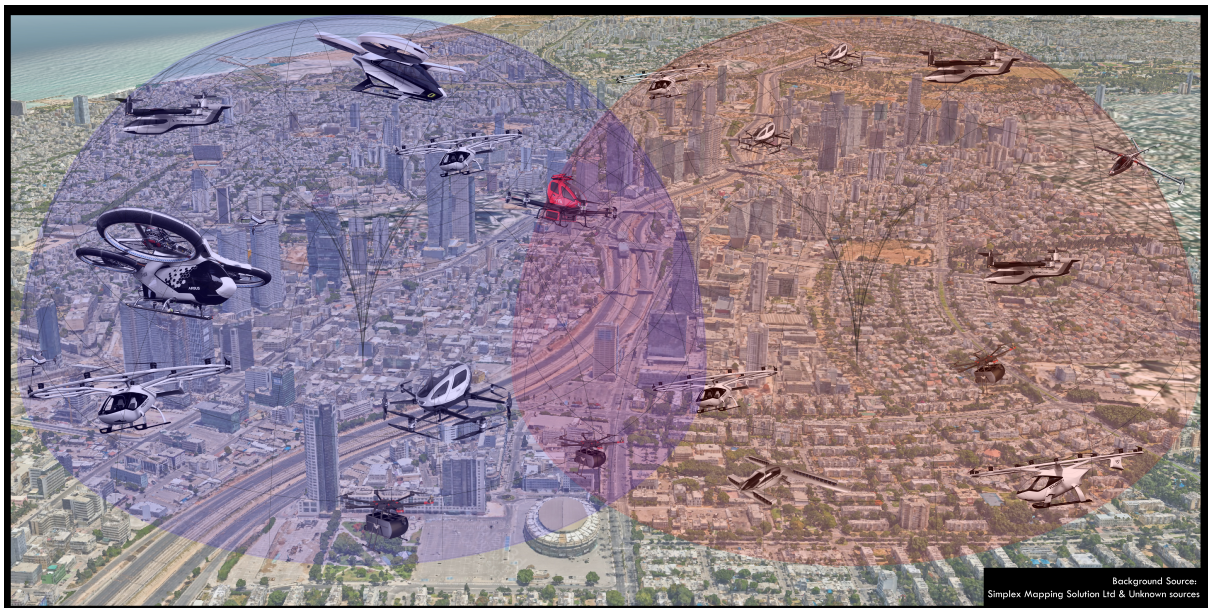

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Abstract

Low-altitude aircraft is being developed as a new mode of urban transport; consequently, the penetration of low-altitude passenger and delivery aircraft into the urban airspace is inevitable soon. This will give rise to new urban air transport systems, called low-altitude air city transport (LAAT) systems. In this study, a simulation environment was constructed to model air traffic flows using a microscopic model from the literature. In the framework, macroscopic characteristics for airspace dynamics were estimated. The Macroscopic Fundamental Diagram (MFD) for low altitude air city transport system is presented in this paper. This study aims to enhance the modeling of MFD for LAAT systems to capture the airspace dynamics. These findings can lead to the development of new control strategies to minimize congestion in futuristic urban airspace.

Keywords

Low-Altitude Air City Transport System, Macroscopic Fundamental Diagram