

## APPENDIX B-3-2: AEROTROPOLIS

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The Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21), a federal funding and authorization bill to govern United States (U.S.) federal surface transportation spending, defines an *aerotropolis transportation system* as “a planned and coordinated multimodal freight and passenger transportation network that...provides efficient, cost-effective, sustainable, and intermodal connectivity to a defined region of economic significance centered around a major airport.” This concept, linked to University of North Carolina professor John Kasarda, uses airports as hubs for concentrated freight trade and industry activity – attracting clusters of business, logistics, and industrial parks, distribution centers, information technology complexes, and wholesale merchandise marts – to stimulate economic growth, spur investment, and increase the number of higher paying jobs. Ideally, this highly competitive, attractive, and sustainable network would create synergistic communities in close proximity to the airport where one can work, shop, eat, sleep, and be entertained. Calling it a new urban form, Karasara, views airports as “key nodes in global production and enterprise systems offering ...speed, agility and connectivity” and aerotropolis development and sustainable smart growth should go “hand-in-hand.”

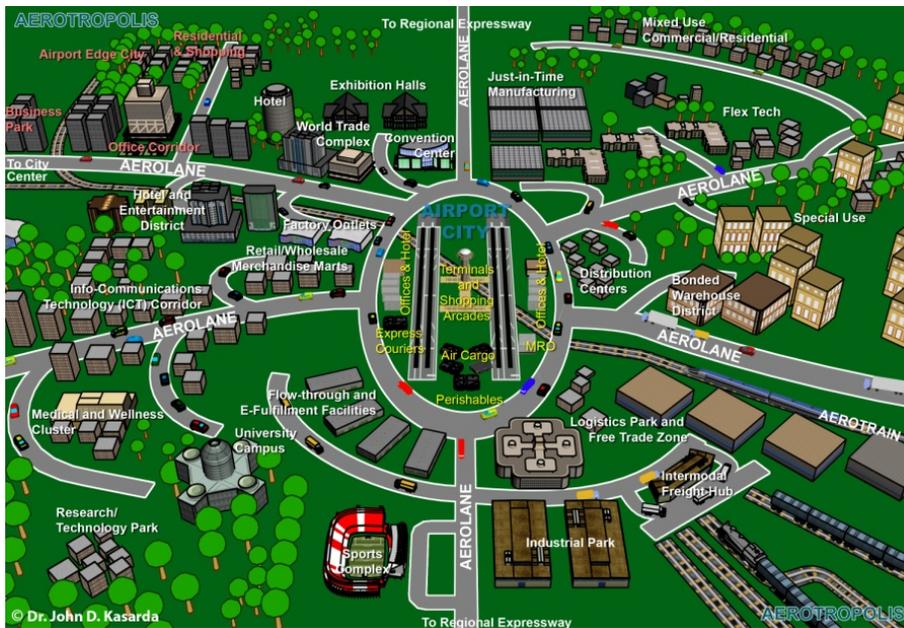
In 2011, the aerotropolis model was highlighted by Time Magazine as one of the “10 Ideas That Will Change the World.” Airport-centric communities have been globally embraced in places like China, India, the Middle East, Amsterdam, and South Korea. In the U.S., aerotropolis systems are recognized in MAP-21 as part of the national freight network for strategic direction

of resources to improve freight movement efficiency and performance. Many California air cargo airports are currently surrounded by incompatible land uses and will not be able to fully take advantage of the model; however, virtually any community can adopt similar policies and plans scaled to an airport’s size and type. Within California, Los Angeles International (LAX) and Ontario have been listed as operational airport cities and Gillespie Field is exploring this concept.

For years LAX has and will continue to be the hub of extreme trade activity. Recognizing existing constraints, it will keep taking advantage of opportunities for operational cohesiveness and efficiency. Ontario has many perfectly-compatible attributes including a strategic location, surrounded by an extensive surface transportation system, with available prime property nearby, and wide-spread community and political support.

With the highest revenue and number of operations within the San Diego County Airport System, Gillespie Field Airport seems ideally situated in a valley where three freeways and the cities of El Cajon and Santee meet. The city of San Diego and other partners have been awarded funds from a San Diego foundation and the U.S. Economic Development Administration to develop an aerotropolis strategic roadmap to leverage regional resources, including the airport, to encourage economic growth, workforce development, and job creation.

The following is an example of a conceptual aerotropolis development model.



John Kasarda developed the following principles for strategic and infrastructure aerotropolis planning:

- Dedicated airport expressway links (aerolanes) and airport express trains (aerotrans) should efficiently connect airports to major regional business and residential concentrations.
- Special truck-only lanes should be added to airport expressways, as should improved interchanges to reduce congestion.
- Time-cost accessibility between key nodes should be the primary aerotropolis planning metric rather than distance.
- Businesses should be steered to locate in proximity to the airport based on their frequency of use, further reducing traffic while improving time-cost access.
- Airport area goods-processing activities (manufacturing, warehousing, and trucking) should be spatially segregated from white-collar service facilities and airport passenger flows. Noise and emission-sensitive commercial and residential developments should be sited outside high-intensity flight paths.
- Cluster rather than strip development should be encouraged along airport transportation corridors with sufficient green space between clusters.
- Form-based codes should establish general design standards for airport area buildings, walkways, travel lanes, landscaping, and public space.
- Placemaking and wayfinding enhanced by thematic architectural features, public art, and iconic structures should make aerotropolis developments interpretable, navigable, and welcoming.
- Mixed-use residential/commercial communities housing airport area workers and frequent air travelers should be developed with easy commutes and designed to human scale providing local services and sense of neighborhood.

Resource: Aerotropolis website located at: <http://www.aerotropolis.com/airportCities/about-the-aerotropolis>.