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By Keith K. Hui, AIA NCARB, Senior Associate, NBBJ

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By Michael Gallis, Principal, Gallis & Associates, Inc.

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According to conventional wisdom, most airports need to expand to accommodate increasing activity levels. Traditional forecasting, demand/capacity studies, alternatives analyses and financial plans are all important… But let’s think beyond the obvious. Seeing a bigger picture early on may lead to outstanding consequences you might not have imagined.

The Real Dilemma
The world economy is growing at the fastest pace in human history.

> Will airports be able to keep pace with the continuing growth in passenger and freight volumes?

> Is the challenge facing airports simply one of creating more capacity, or can they evolve into complex transportation hubs where all modes of transportation and communication synchronously and seamlessly interface?

As you carefully ponder these two questions, consider the following unfolding global trends:

> The growth of a new and integrated Global Network, consisting of a series of transportation corridors that connect at hubs in the center of major metropolitan areas that moves people, goods and information continuously around the world;

> Transformation of global logistics due to e-commerce and Order-to-Delivery concepts that collapse the shipping times and require a higher level of supply chain management to ensure that people and goods are moving effectively throughout the world;

> A new global economic geography featuring new trading blocs, with North America separated from other trading blocs by oceans, requiring movements by ship or air to reach world markets;

> A new economy that continues to shift from manufacturing to a service-based economy, which demands even higher levels of air passenger and freight service; and

> New global trends including economic growth rates ten times higher than population growth, creating a disproportionate increase in the need to move people and goods by air through the global network.

Within this global network, airports have a unique and special role. Airports are the only transportation and logistics hubs that connect passengers and freight within a region to the world marketplace.

Rather than remain specialty air transportation centers, airports can form the nucleus of an integrated logistics complex that achieves higher levels of capacity
and multi-modal integration and regional economic impact.

Several large metropolitan areas have some level of multi/inter-modal capacity — New York and Miami blend port and airport infrastructure. Ft. Lauderdale integrates air and sea transport by delivering airport baggage for cruise ship passengers directly to their ports of departure.

But should large hub and other airports be expending the time and money to consider this multi-modal approach? Absolutely. A case in point is the Charlotte Douglas International Airport, a large air hub in Charlotte, NC. Goals stated in a strategic development plan completed in the late 1990s include the following:

- Build Charlotte into the fourth major logistics hub on the East coast of North America to compete with New York, Atlanta and Miami.

This plan fundamentally defines the airport as an integrated multi-modal hub, combining air transport with the rail network and the coastal ports and providing a competitive advantage to the Charlotte region. It offers an excellent example of how a truly multi-modal facility can potentially create a thriving transportation hub to serve the world markets.

Leading the Charge for Change

So what does it take to create an effective multi-modal center? Some of the most salient lessons learned that have proven successful over time include:

1) Evaluate the airport’s relationship to its market in the context of global trends. This includes analysis of the metropolitan and super-regional transportation system and ancillary services, the region’s economy and its urban and demographic structure.

2) Incorporate multi-modal-oriented development modules into master planning. Such multi-modal complexes, typically composed of industrial, office, commercial, residential and hotel developments linked to airports via rail, could form an important cornerstone and platform for the future economic growth of the region.

3) Base the transportation and logistics components of the airport planning strategy on two principals: 1) increase capacity in all modes while 2) achieving higher levels of modal integration. Together these two factors can allow for seamless passenger and freight inter-modal transfers across...
the rail, road, air and sea systems linked at the airport hub.

4) When defining goals for the airport land envelope, think in very long term timeframes. After all, the airport is not moving. Also consider shared container storage as the ability to share air, surface and sea transport storage supports more efficient inter-modal transfers that create a more robust economic center. Developing a multi-modal platform provides an opportunity for shippers to shift freight to the most efficient and cost effective mode, given its point in the schedule as it moves through the supply chain. And it offers the potential to drastically reduce truck traffic from over-taxed streets and highways.

See With New Eyes

Instead of measuring airports by airport capacity performance metrics alone, we should provide additional metrics that consider the inter-modal success of the region, the regional economy and whether or not the airport is maximizing its relationships with other transport modes.

By linking multiple modes of surface, water and air transport to the airport, we can potentially develop new and efficient configurations that can support the increasing passenger and freight flows. The truth is, a growing number of communities could benefit by using this model. The consequences of investing time and money in strategic multi-modal system planning could have impressive and far reaching positive economic impact — regionally and globally — in the decades to come and increase the airport’s and region’s competitiveness in the 21st century global economy.