Aerotropolis and Airport Planning: Generating Economic Growth
Thursday 12 October 2017, Sydney NSW
James A Moore, Principal, Jacobs Advance Planning Group
Historic Precedents
Skyscraper Airport

What the metropolitan skypark of tomorrow may look like, as conceived by Nicholas DehMario, New York commercial artist, is shown in the illustration below. His remarkable proposal, embodied in a model that he has completed after five years' study of the project, calls for a 200-story building capped by an airplane field eight city blocks long and three blocks wide. A lower level of his “aerotropolis,” as he has named it, offers a port for lighter-than-air craft. Hangars for planes and airships occupy the top fifty floors.

Commuters living 100 miles or more from the city would fly to work in their private planes. Landing on the roof, they would descend by elevators and moving platforms to an indoor parking space for 250,000 private cars and taxis, whence they would be whisked without delay to their destination. Similar facilities would serve passengers arriving by transport planes and airship lines. By centralizing air and land terminals in one building, the “aerotropolis” would save time now lost in journeying to and from airports far from the heart of a city.

Other parts of the building provide space for offices and light industrial plants, theaters, two enormous arenas for football and baseball games, restaurants, and cafes.
21st Century Transformation
REGIONAL ECONOMIC NICHES | LEVERAGING | GLOBAL CONNECTIVITY
Wimbledon’s Tennis Ball Production Miles

Total Journey: 50,570 miles

MATERIALS

01. USA
   Clay
   8710 miles

02. NEW ZEALAND
   Wool
   11815 miles

03. UK
   (STROUD)
   Felt Weaving
   6720 miles

04. CHINA
   Petroleum
   Naphthalene
   2085 miles

05. SOUTH KOREA
   Sulphur
   1630 miles

06. JAPAN
   Magnesium
   Carbonate
   1880 miles

07. GREECE
   Silica
   5960 miles

08. THAILAND
   Zinc Oxide
   1335 miles

09. PHILIPPINES
    (BASILAN)
    Glue
    560 miles

10. MALAYSIA
    Rubber
    1505 miles

11. PHILIPPINES
    (BATAAN)
    Rubber
    560 miles

12. PHILIPPINES
    (BATAAN)
    Tins
    1710 miles

13. INDONESIA
    6660 miles

14. WIMBLEDON
"The 20th century was about cities building airports. The 21st century will be about airports building cities."

John D. Kasarda
What is an Aerotropolis?

An Aerotropolis is an alignment of the metropolitan region to better leverage an airport’s assets and provide a framework for the strategic planning and development of economic activity and real estate.
Airport as an Economic Accelerator

- Attract Inward Investment + Air Route Development
- Create More + Better Jobs
- Enhance + Grow Tourism
- Diversify + Grow Economy
- Core
  - Terminal
    - Airside & Landside
  - Core
- Aerotropolis
- Off Airport
The Time-Distance Factor
Emerging Aerotropoli Around the World

Denver

Munich

Hong Kong

Edmonton

Louisville
Memphis Aerotropolis (MEM)

- Largest Air Cargo Airport in the World: 3.9 Mn Tons/year
- 395 ha Land for Logistics Development
- Federal Express Cold-Chain Logistics Facility
  - Bio-logistics
  - Perishables
  - Composite Materials
- Major Corporations: FedEx, Nike, Medtronic, Flextronic
- Land Use Strategy based on Economic Clusters & Catalyst Projects
Munich International Airport (MUC)

- 40M Passengers/Yr
- 49% Non-Aeronautical Revenues
- On-Site Electricity & Heating Utility

Non-Aeronautical Development

- Municon Airport Center
- Audi-Forum
- 5 Star Kempinski Convention Hotel
- Municon Conference & Business Center
- Multimodal Centre
Amsterdam Airport Schipol (AMS)

- 322 direct destinations
- 58 million annual passengers
- 1.6 million annual tons of cargo
- 2,787 Ha of overall development
- 65,000 employees
- 600 companies
- Airport City
  - 160,000 SM office space
- Regional multi-modal transport center
Paris Charles De Gaulle Airport (CDG)

- 66 million passengers, 1.9 M tons of freight annually
- CDG Airport City
- CDG focus of regional “Hubstart” Alliance
  - 68,000 Ha
  - 350,000 employees
  - 2.1 M SqM commercial development
  - 1,700 firms
  - International Business Park and International Trade Center under construction
Planning an Aerotropolis
Targeted Economic Clusters

Upstream and Downstream Activity Clusters

Shared Elements

Upstream and Downstream Activity Clusters

Targeted Economic Clusters

Shared Elements
The Corporate Crescent
A New Front Door for Delta
International Gateway
International Gateway
Denver International Airport (DEN)

- 52 M Passengers/Year
- United US Hub
- 43% non-aero revenues
- Six runways
- 3,600 Ha developable land
- 84,500 jobs at build-out
- Westin International Hotel
  - 519 Rooms
  - Conference Center
- Light Rail link to Downtown
  - Two On-Airport TODs
- Development Strategy based on Economic Clusters
Industrial Agriculture & Perishable Foods
Bioscience
Targeted Economic Clusters
Logistics
Renewable Energy
Aviation & Aerospace
Pena Station Panasonic Smart City TOD
Phoenix-Mesa Gateway Airport (AZA)

- 1,320 hectares
- Three parallel runways
- Operates as a second airport to Phoenix Sky Harbor
- 2030 Plan expands to 20,000,000 annual passengers
- Includes adjacent university and two office/industrial campuses
- Developing international aerospace centre
- Designated Free Trade Zone (FTZ)
Alliance TX - Fort Worth Alliance Airport (AFW)

- Developed by Hillwood
- 6,800 hectares
- 370 companies
- 2,400,000 SF of development
- >30,000 full-time jobs
- 2,400 hectares of housing; 10,000 residences
The true challenge is planning to get the Aerotropolis right. If there is not appropriate planning, airport-area development will be spontaneous, haphazard, economically inefficient, and ultimately unsustainable. The Aerotropolis model brings together airport planning, urban and regional planning, and business-site planning to create a new urban form that is highly competitive, attractive, and sustainable.

John D. Kasarda
How Do We Get There?

Think Collectively, Regionally & Long-Term
Leverage Existing, Emerging & Future Industries
Coordinate Land Use & Multi-Modal Transportation
Optimize Global Connectivity
Be Patient
Thank You