



AIRPORT PLANNING & DEVELOPMENT

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Infrastructure is the foundation of commerce.

Money is the lubricant of commerce.



Master
Plan

Functional
Concept

Feasibility
study

Design

Construction

Furniture
& Equipment

Implementation

Airport
Development

Airport Master Plan

- An inventory of the physical facilities of the airport and airspace infrastructure and nearby airport-related land uses;
- A demand forecast for short, intermediate and long-terms to determine the necessary capacity for airport facilities;
- An assessment of the capacity of the airport to satiate projected demand in terms of airside capacity (e.g., number and dimensions of runways, taxiways and aprons) and landside capacity (e.g., terminal building space, parking and surface access), and the delay imposed by inadequate capacity;
- When the capacity of the existing airport is inadequate, or where a decision has been made to build a new airport, site selection must be undertaken;
- Existing and potential environmental impacts must be considered as well as appropriate mitigating measures;
- Simulation (sometimes with computer models) of airport operations in order to assess the merits of development alternatives;
- The cost effectiveness and financial feasibility of various alternative concepts and solutions must be evaluated;
- Preparation of drawings of an Airport Layout Plan (consisting of the airport boundary, runway configuration and areas reserved for landside facilities), a Land Use Plan (showing areas reserved for terminals, maintenance, cargo facilities, general aviation and other areas within the airport boundary, as well as recommended off-airport land uses, based on considerations of safety and noise), a Terminal Area Plan (revealing the various terminal area components and their relationships), and Access Plans (showing major highway and rail routes from the airport to the Central Business District); and
- Plan implementation, which includes schedules, costs of, and sources of revenue for airport development.



Facilities Assessment

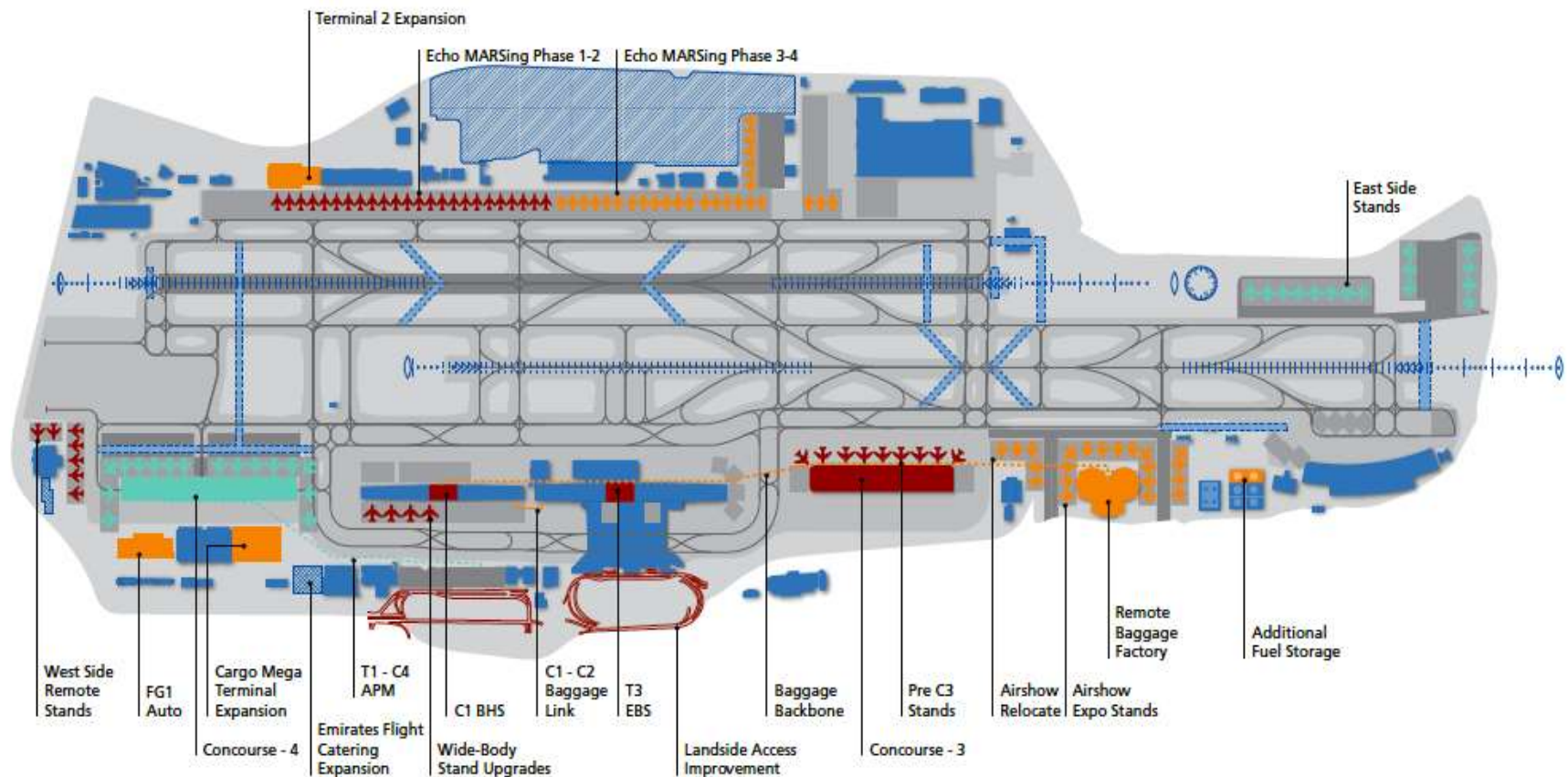
- Annual throughput of international and domestic passengers, cargo and mail, categorized by scheduled and non-scheduled airlines, and general and military aviation, and by arrivals, departures, transit and transfer/trans-shipment;
- Typical peak hour aircraft movements and throughput of passengers, cargo and mail;
- Average day of peak month throughput of passengers and aircraft movements;
- Number of airlines serving the airport, their local and network size, and route structure;
- Types of aircraft serving the airport;
- Number of aircraft to be based at the airport, and their base and line maintenance requirements;
- Intermodal surface transportation connections between the airport and the surrounding metropolitan area;
- Number of visitors and airline and airport employees by category, including segregation of passengers into origin-and-destination and connecting categories;
- Historic trends in passenger, freight, mail, and aircraft traffic volume;
- Demographic, population and economic growth characteristics of the region, including the types and levels of business activities, and hotel and motel registrations;
- Geographic factors affecting transport requirements, including distance from other population centers; and
- Intramodal and intermodal competition.



Facilities Assessment

- Runways, taxiways and aprons and related marking and signage;
- Passenger and cargo buildings and other terminal buildings and areas, by function;
- General aviation buildings and areas, by function; fire fighting and rescue buildings; Federal facilities;
- Surface access to the airport, including vehicular circulation and surface access;
- Aviation fuel and aircraft servicing systems;
- Utilities, including water, gas, electric, telephone, drainage and sewage; and
- Proximity of airports to one another, and their influence on flight patterns

Dubai International phased expansion



Demand Forecasting

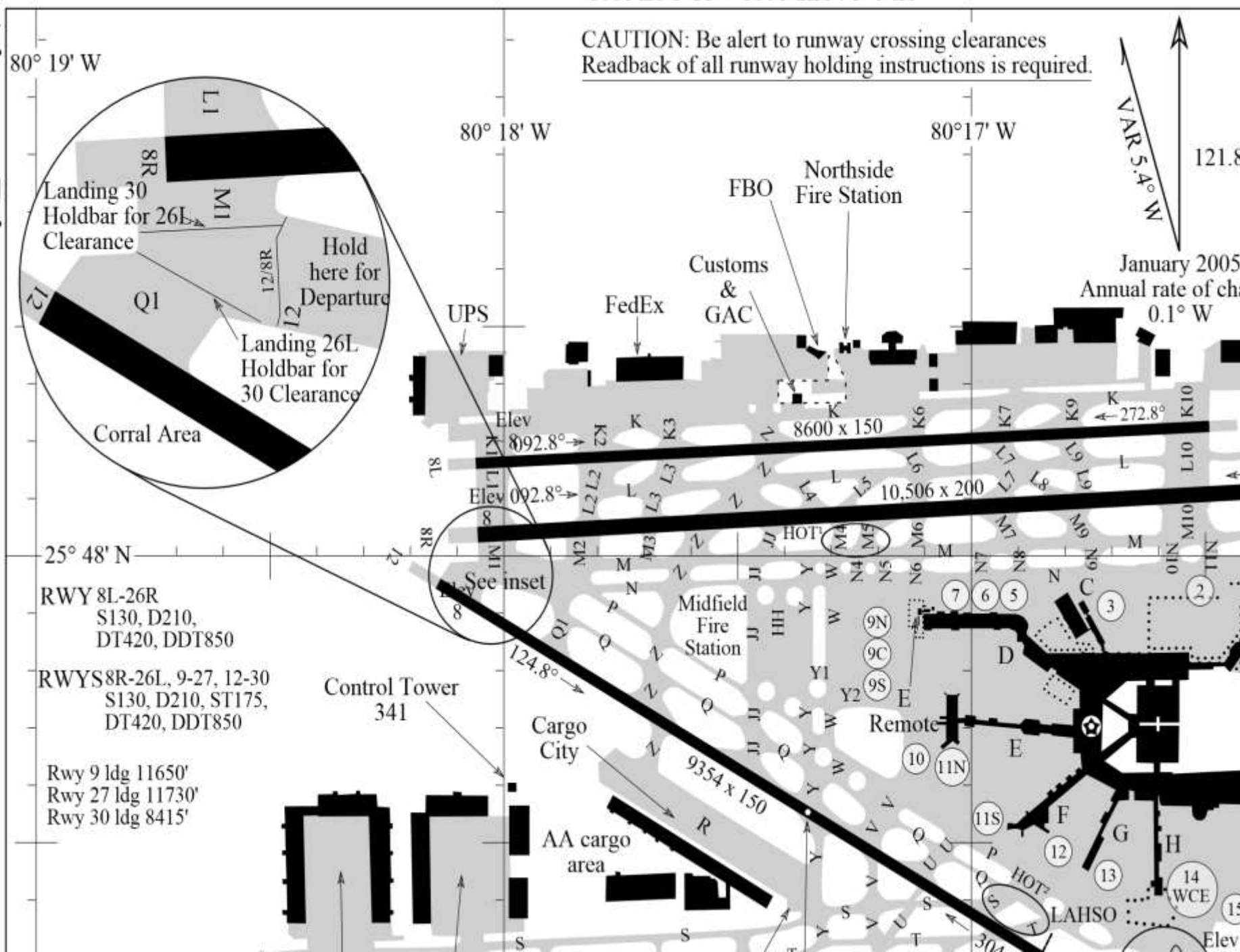
- *Economic Growth and Changes in Industrial Activity.* In addition to national and regional economic activity, forecasting should be tailored to local economic characteristics and trends.
- *Demographic Patterns.* The size and composition of the area's population, including its population, age, educational and occupational distribution is important.
- *Disposable Personal Income.* The higher the disposable personal income, the greater likelihood that the area will enjoy higher levels of consumer spending on air travel.
- *Geographic Attributes.* The geographic distribution and distances between population centers may affect the type of transportation services required.
- *Other External Factors.* These include such things as changes in fuel prices, the regulatory environment, taxes, fees and currency restrictions.
- *Local Aviation Actions.* Demand for aviation can be effected by such locally determined factors as ground access, support services, user charges, and plans for future development.

Airport Diagram

07186

SE-3, 24 SEP 2009 to 22 OCT 2009

CAUTION: Be alert to runway crossing clearances
Readback of all runway holding instructions is required.



Facilities Design

Runways

Taxiways

Aprons

Aircraft hangars and maintenance facilities

Aeronautical navigation facilities

Aviation lighting facilities

Aircraft fuel facilities

Passenger terminals

Customs facilities

Immigration facilities

Quarantine facilities

Catering facilities

Airline offices

Meteorological facilities

Communications facilities

Electric power supply facilities

Gas supply facilities

Heat and cooling facilities

Sewage treatment facilities

Waste disposal facilities

Water supply facilities

Baggage handling facilities

Air cargo facilities

Postal facilities

Rescue and fire fighting facilities

Police facilities

Automobile parking facilities

Automobile rental facilities

Taxi, bus and van plazas

Rail terminals

People mover systems

Hotels



Since the airplane has become a factor in commerce, the question of suitable landings within city areas has grown in importance. One plan calls for an immense stage to be erected on top of four skyscraper towers, to span 1,400 square feet. The entire platform can handle 80,000 passengers and 30,000 tons of freight yearly.

PREDICTION
1926

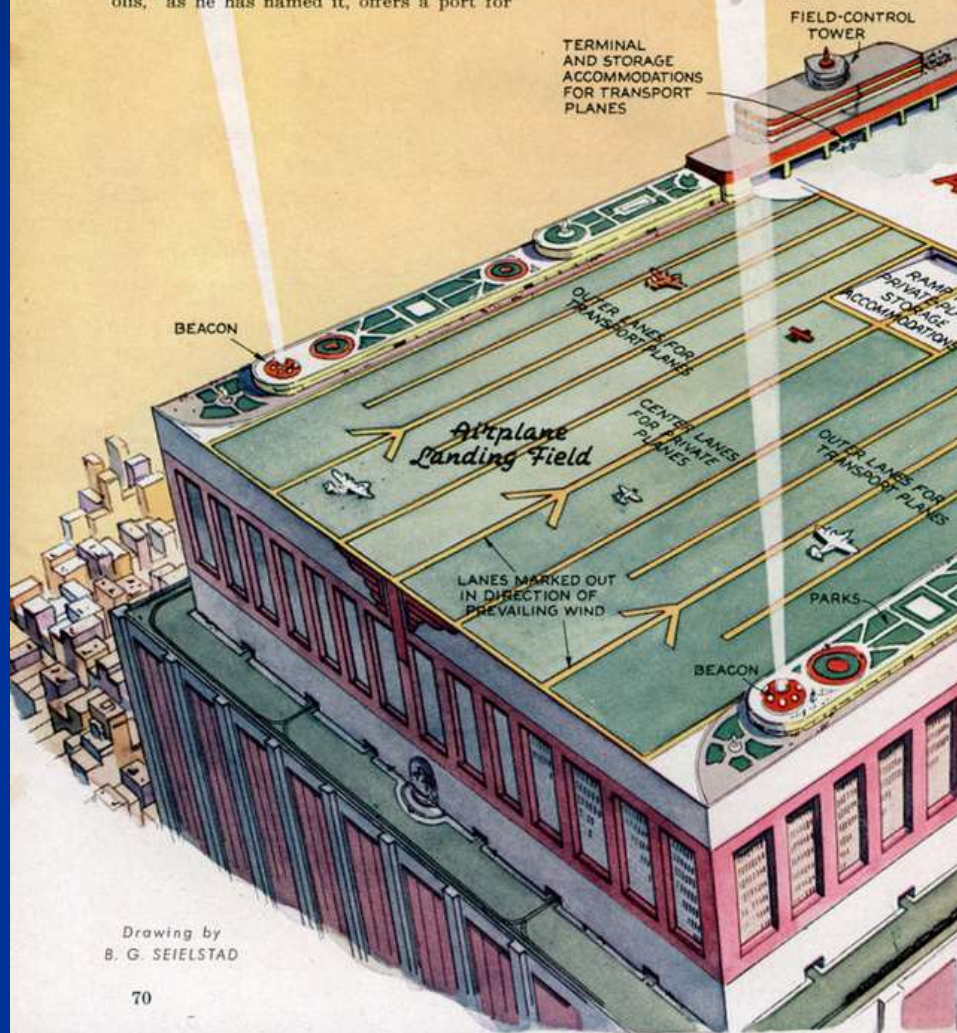


Skyscraper Airport

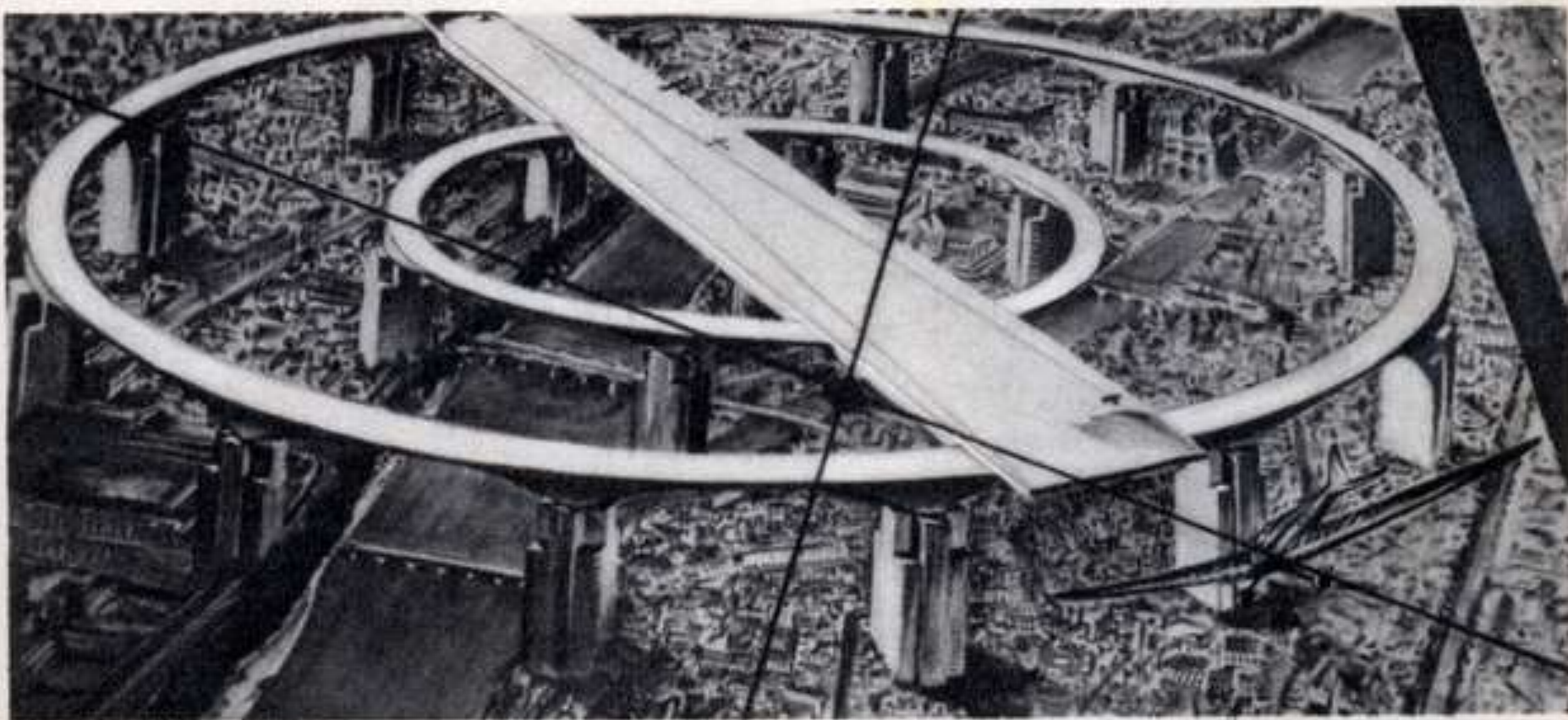
WHAT the metropolitan skyport of tomorrow may look like, as conceived by Nicholas DeSantis, New York commercial artist, is shown in the illustration below. His remarkable proposal, embodied in a model that he has completed after five years' study of the project, calls for a 200-story building capped 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 pri-



Drawing by
B. G. SEIELSTAD



Proposes Orientable Roof-Top Airports For Cities

PROPOSED as a solution to the problem of locating an airport in the heart of any big city, a design for a long orientable run-

way, which would be mounted on circular tracks atop tall buildings, as sketched above, has been conceived by a French engineer.



MANHATTAN'S PROPOSED TERMINAL SPRAWLS ALONG THE SHORE OF THE HUDSON RIVER. VIEW IS FROM HUDSON LOOKING DOWNTOWN. THE LANDING DECK EXTENDS

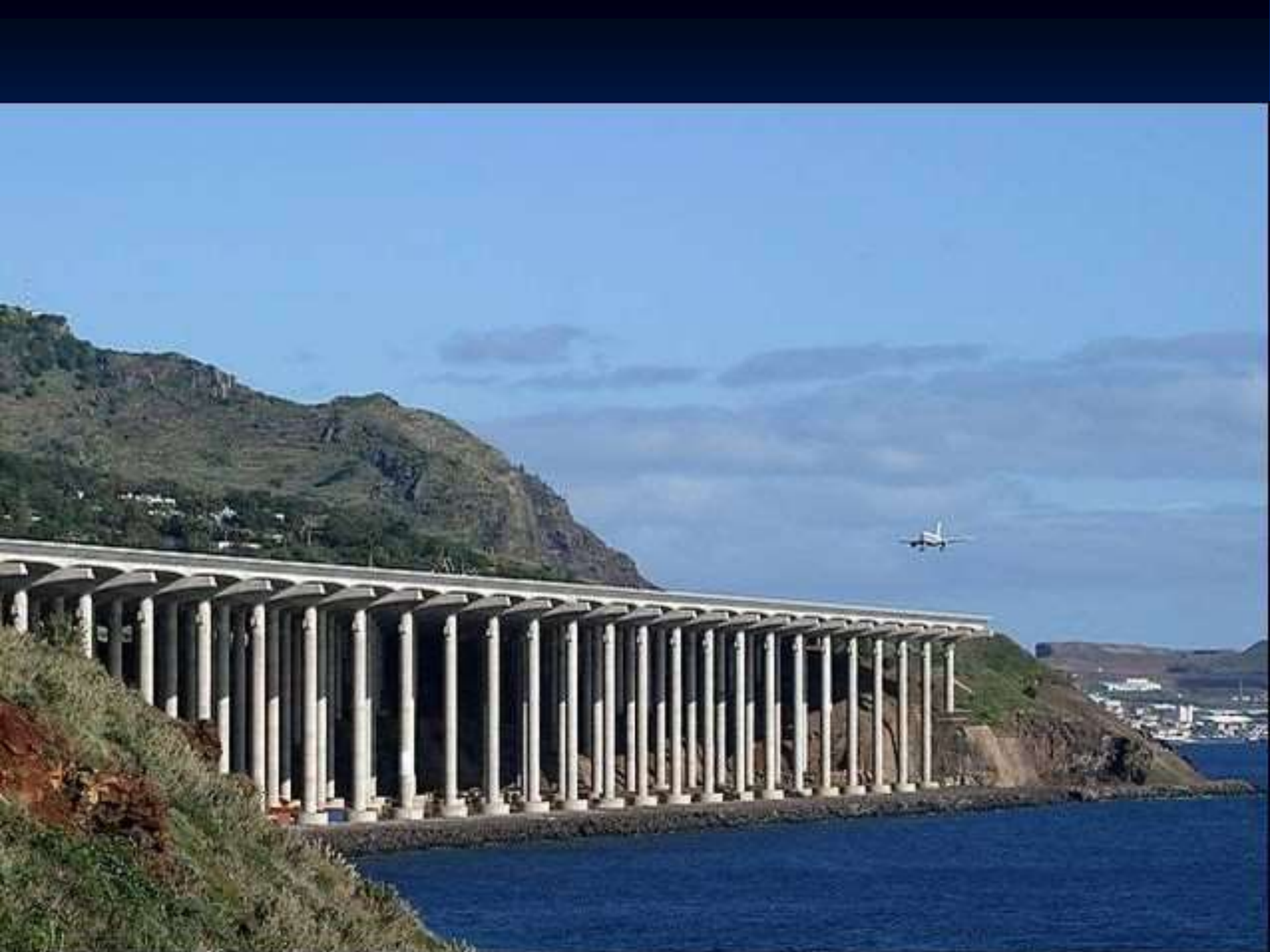
NEW YORK CITY'S DREAM AIRPORT

**\$3 billion project would place a
landing deck in midtown Manhattan**

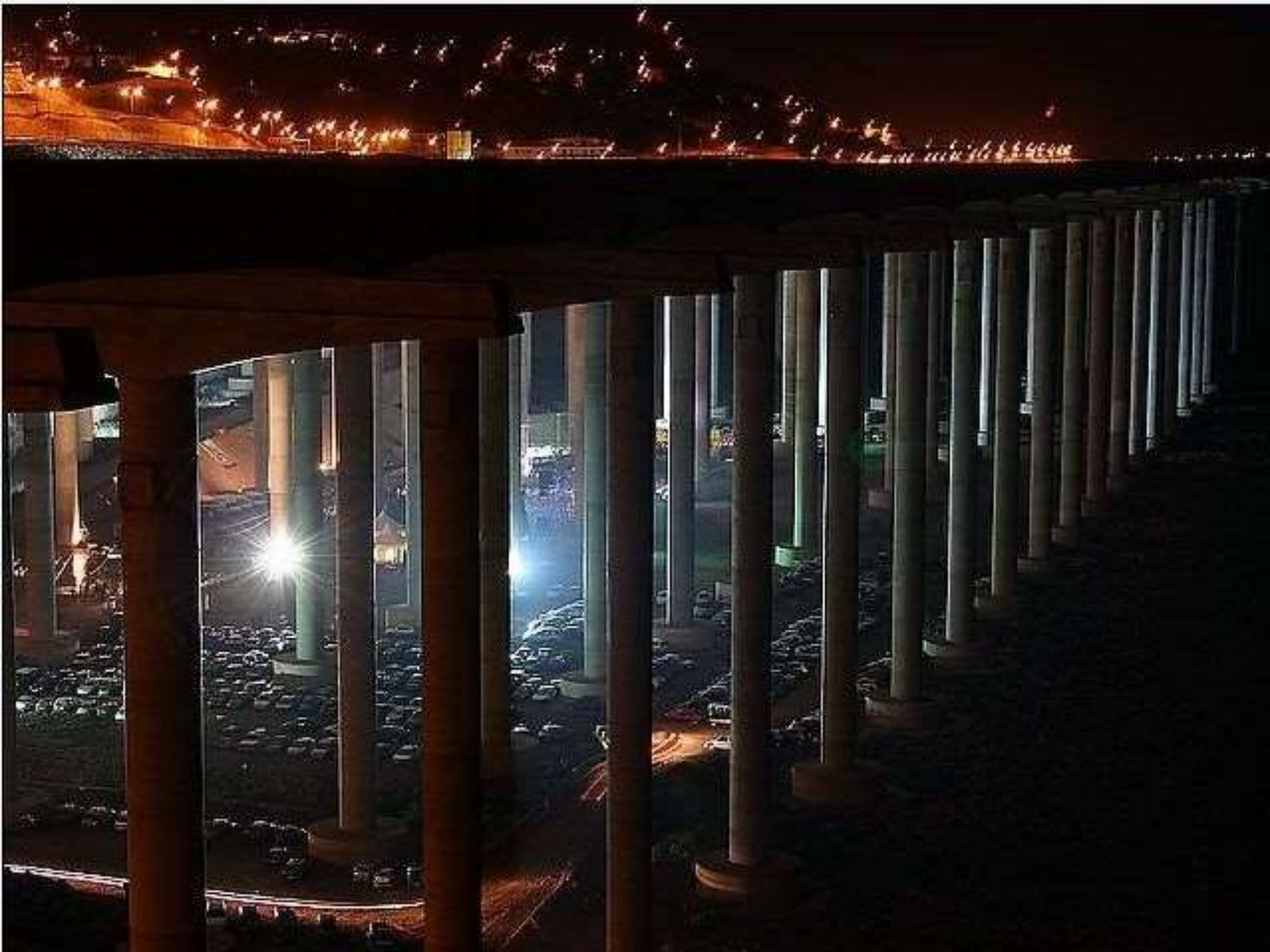
Shown above is a panoramic view of Manhattan Island with the most ambitious and most expensive aviation project yet proposed flanking its Hudson River shore. It is an airport built 200 feet above street level right over 144 square blocks of Manhattan's crowded, valuable West Side from 24th to 71st Streets and from Ninth Avenue to the river. On the top 990-acre deck, which is 12,000 feet long by 3,600 feet wide and is roughly as big as Central Park, are three parallel runways to handle plane traffic. Under the landing platform are a series of buildings ten stories high, topped by a vast hangar deck with a 50-foot ceiling clearance. This airport is still a dream project but the man who dreamed it up is one of the most successful and hard-boiled real-estate men in New York City—

William Zeckendorf, vice president of the big New York real-estate firm of Webb and Knapp. He estimates the cost of his transportation center at \$3 billion, \$500,000,000 for the land and \$2,500,000,000 for construction and financing. This, he thinks, can be paid off by rental income within 55 years after the project is completed. Although the Manhattan terminal is still in the drawing-board stage and has not yet had approval of New York officials, the planners expect that the increasing tide of air travel will make their idea a necessity.

The sprawling terminal, in effect, would bring air service right into the heart of New York City and eliminate the necessity of limousine travel to and from existing airports which are 10 miles outside the business districts. Actually it takes less time by

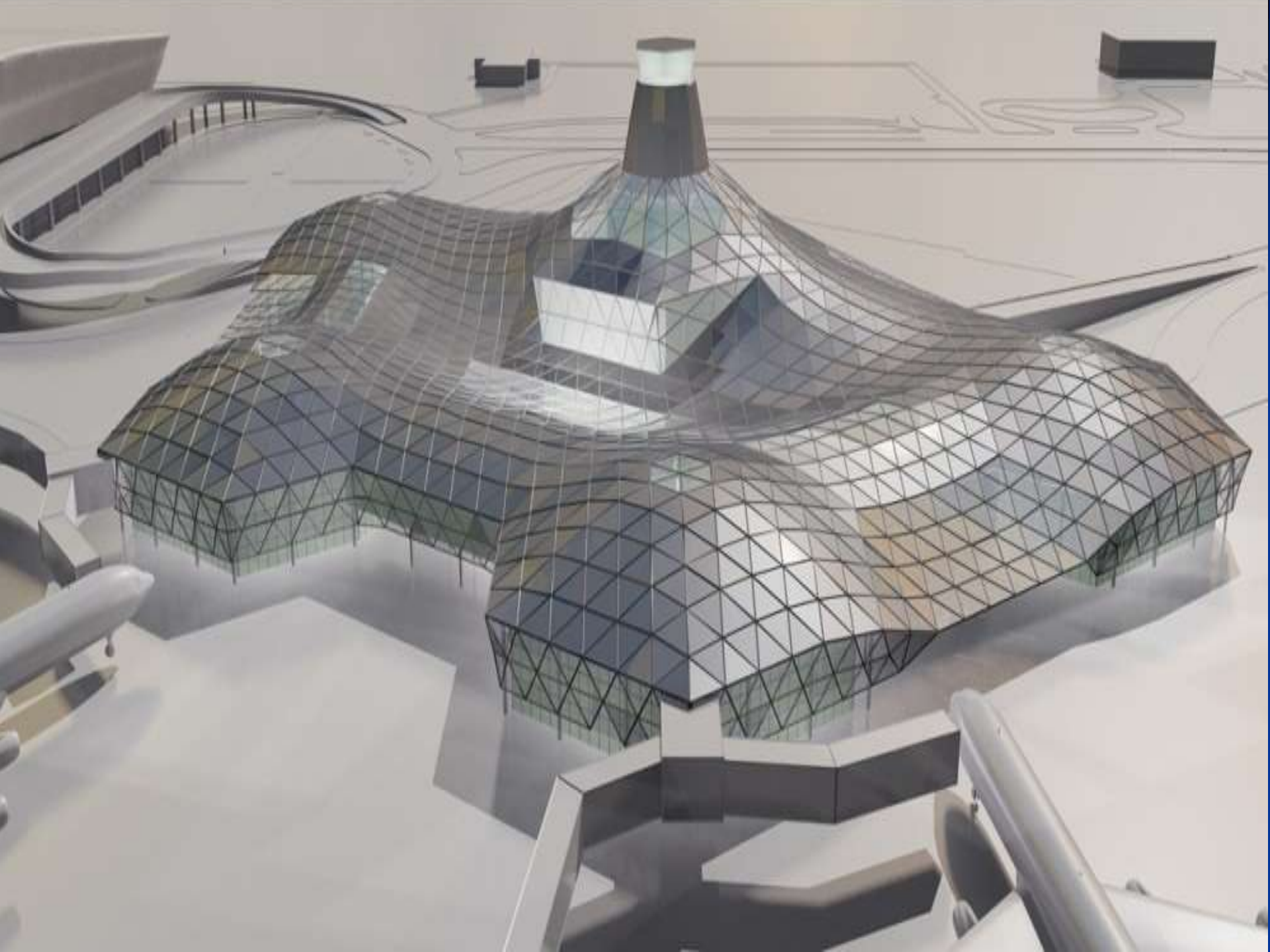


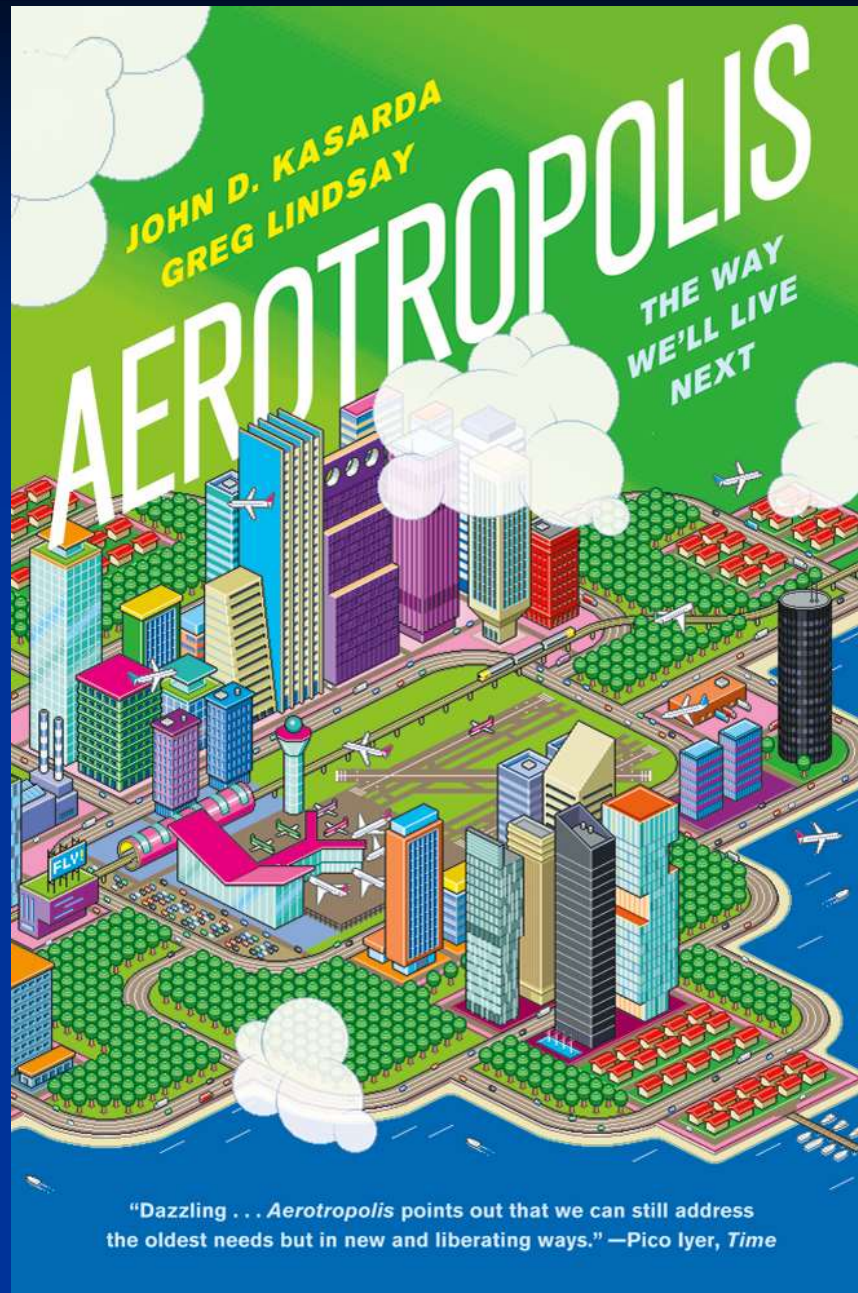


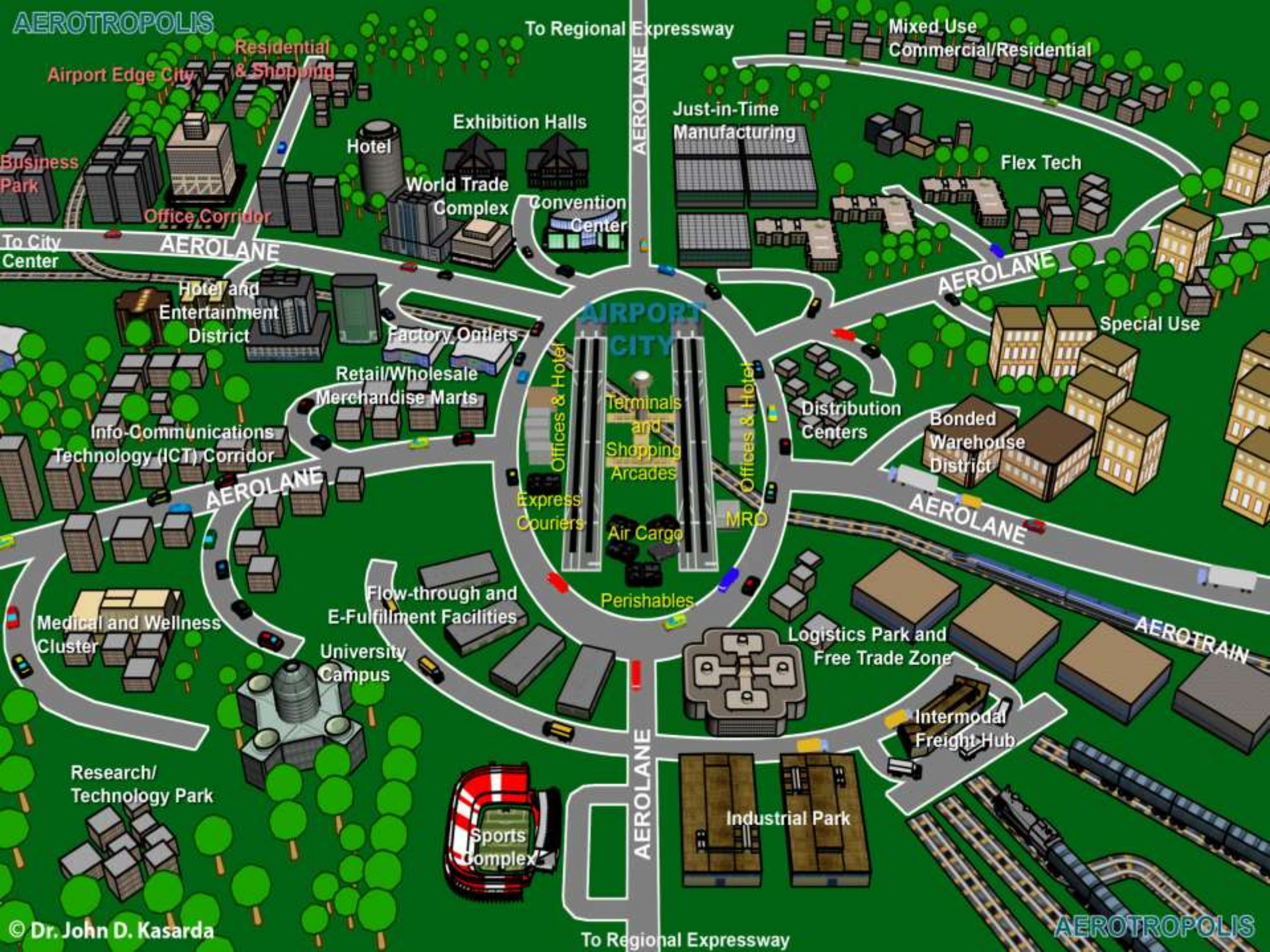












Capital Costs



- A government seeking to build a new airport, or an airport seeking to expand, must raise sufficient capital to finance such infrastructure development from public or private sources, or a combination of both.
- *Capital costs* consist of the component costs (e.g., labor, materials and equipment) of construction of the airport and its component parts.

Sources of Capital

Sources of capital for airport development include:

- governmental or international organization loans and grants,
- commercial loans from financial institutions,
- equity or debt (typically, bonds) from commercial capital markets, including private investors, banks investment houses, or fund pools, and
- the extension of credit from contractors and suppliers.

Airports must also evaluate the amount of foreign capital needed, for debt often will be needed to repaid in that foreign currency, and therefore subject to both competitive internal needs for foreign currency, and currency valuations, favorable and unfavorable.

Funds come from a variety of public (including governmental) and private (including general obligation and revenue bonds [GARBs]) sources.

Commercial loans typically incur the highest interest rates, though such rates may be reduced by governmental loan guarantees.

Existing airports also may have retained earnings building in a capital development account.

Commercial Debt (Bonds)

In the US, funding for airport capital infrastructure, such as runways, taxiways, and terminals, has come from two primary sources:

1. Federal ticket taxes (or Airport Improvement Program [AIP] funds) from the Airport Trust Fund collected on every airline ticket purchased in the U.S.; and
2. tax-free General Airport Revenue Bonds [GARBs] issued by municipalities.

Early airport construction was financed by *general obligation bonds* backed by the "full faith and credit" of a governmental unit and secured by taxes collected by it. The industry was in its infancy, and airports were not capable of generating sufficient revenue to finance infrastructure costs.

Since World War II, GARBs have replaced general obligation bonds as the preferred means of financing new airport construction, expansion or improvement.

GARBs typically run for a 25-30 year term (as opposed to general obligation bonds which run for 10-15 years) and usually pay higher interest than general obligation bonds.

Build-Operate-Transfer

A large commercial airplane is shown from a low angle, flying directly towards the viewer over a runway at night. The runway is illuminated with bright lights, and the city skyline is visible in the background under a dark blue sky.

Another private sector funding mechanism is the Build-Operate-Transfer [BOT] approach, whereby the contractor commits to financing, construction, operations and maintenance for a specified number of years (known as the "free use period"), after which it transfers the facility over to the government.

Examples:

- Athens Spata International Airport (25-year concession)
- Berlin-Brandenburg Airport



Capital Available to Developing States

- Foreign governments may be willing to provide capital to airport projects in less developed States, out of a sense of altruism, or with the purpose of promoting trade and commercial relations between the two nations, or exporting technology and equipment from firms domiciled in the lender nation. Some States have developed economic and social development programs in various parts of the world, providing loans on preferential terms, or supplies, equipment and technology. Examples include:
- Belgium - Administration generale de la Cooperation au Developpement
- Canada - Canadian International Development Agency
- Czechoslovakia - Ministry of Foreign Affairs
- Denmark - Danish International Development Agency
- France - Caisse centrale de Cooperation economique
- Germany - Ministry of Economic Cooperation
- Italy - Department of Cooperation
- Japan - Overseas Economic Co-operation Fund
- Netherlands - Foreign Ministry
- Norway - Norwegian Agency for International Development
- Russian Federation - Ministry of External Economic Relations
- Spain - Cooperacion Internacional
- Sweden - Swedish International Development Administration
- United Kingdom - Overseas Development Administration
- United States - U.S. Agency for International Development



Other Sources of Foreign Capital

- Specialized export-promoting agencies (e.g., the Export Development Corporation of Canada, the Export Credits Guarantee Department of the United Kingdom, or the Export-Import Banks of Japan and the United States, COFACE of France, HERMES of Germany, and the Export Credits Guarantee Department of the United Kingdom) may also be able to make direct loans or guarantee private loans, or insure the risk assumed by its domestic firms providing goods and services for airport development



Other Sources of Foreign Capital

- Several international bank and fund organizations have been established to aid developing nations by assisting in financing and execution of projects, particularly infrastructure projects, which foster economic development. These include:
- International Bank for Reconstruction and Development and its affiliates, the International Development Association, and the International Finance Corporation
- African Development Bank
- Asian Development Bank
- Caribbean Development Bank
- Inter-American Development Bank
- European Union European Development Fund
- Japan Overseas Economic Cooperation Fund
- Organization of Petroleum Exporting Countries Fund for International Development
- Arab Bank for Economic Development in Africa
- Islamic Development Bank
- Saudi Fund For Development
- Abu Dhabi Fund for Arab Economic Development
- Kuwait Fund for Arab Economic Development
- Arab Fund for Economic and Social Development



Other Sources of Foreign Capital

The United Nations Development Programme [UNDP] provides developing nations with expertise in planning and executing airport projects, including feasibility and cost-benefit analyses, master planning, and construction. Funding for minor equipment may also be obtained from UNDP, though the principal role of the agency is to provide expertise rather than capital.



In each instance, a loan or grant will be made to a governmental agency, or to a private entity having the support and guarantee of the government. Hence, the government must designate the project a high priority.



Operating Expenses



- Once built, an airport must earn sufficient revenue to pay its operating expenses and retire its debt.
- Such *operating costs* include expense items as interest and depreciation or amortization on debt, taxes, and maintenance and administrative costs, including salaries, power, and repairs.
- Revenue comes from a number of sources, including rents, aeronautical fees, concessions and parking.

Airport Revenue



- Once an airport is operating, it must generate sufficient revenue to retire debt and cover operating expenses. Airports generate revenue from landing fees and terminal leases, concessions (e.g., parking fees), departure taxes and passenger facility charges, and other sources (e.g., advertising and fuel sales).
- Airport operating revenue funds the airport's operating expenses, debt service, and sometimes non-operating expenses, such as capital development (under a "pay-as-you-go" financing scheme).

Revenue Categories

- Airport revenue falls into two broad categories -- revenue derived from air traffic operations, and revenue derived from ancillary (non-aeronautical) operations.
- *Air traffic operations* are a major revenue stream. These include aircraft landing and parking charges, passenger and cargo charges, and leases of airline hangars and gates.
- *Ancillary, or non-aeronautical activities* include concession fees (e.g., rentals and profit-sharing arrangements with concessionaires such as restaurants and shops), revenue derived from rental of land, premises and equipment (e.g., hotels, and airline cargo space, kitchens and office space rent), income derived from the airport's shops and services (e.g., baggage handling, and parking), and various fees charged to the public.
- According to ACI, 54% of airport revenue worldwide comes from aeronautical sources (such as landing fees, aircraft parking, lighting and airbridge charges), and 46% is derived from non-aeronautical sources (such as concessions, parking, rental car facilities, and advertising).



Cash Flow



- ***Air side revenue streams*** include landing fees, fuel taxes, and maintenance and cargo facility leases.
- ***Land side revenue streams*** include terminal rents and gate leases, concessions, parking fees, and various taxes, such as, in the United States, Passenger Facility Charges.
- In addition to government grants and subsidies, the airport turns to its tenants -- the airlines, concessionaires, parking -- and the passengers they serve to finance its maintenance and operating costs, and debt service. Airports derive revenue streams from rents, charges and fees imposed upon airlines, various concessionaires (e.g., car rental companies, restaurants, newsstands, taxi and van services, catering and baggage services, fuel providers, and parking). Airport concessionaires (such as restaurants, news stands, auto rental companies) typically pay rent for the space they occupy, while some pay a gross-receipts fee.
- These streams of revenue finance operating and maintenance expenses, principal and interest debt service, and various "pay as you go" infrastructure, such as terminal or runway expansions or improvements.

Finance Methodologies

The background of the slide is a photograph of an airport at sunset. A large commercial airplane is in the foreground, its tail fin and part of its fuselage visible. In the background, another smaller airplane is on the runway. The sky is a warm orange color from the setting sun.

- In covering operating costs, airports may use differing approaches:
- The *Residual Cost*, or "cash register," approach, which seeks to balance total costs with total revenue. Once the airport's costs have been determined, non-airline revenue is subtracted from total expenditures to determine what additional revenue is needed to break even. Airline specific fees are then set to make up the remaining deficit.
- The *Cost of Service*, or "multiple cost center" method. The airport is divided into cost centers, and fees and charges for each cost center is set at a level to cover the costs allocated to it.
- The *Public Subsidy* approach, under which the difference between cost and revenue is subsidized by the airport or the government.

Airline Rents and Charges



- Airlines pay rental charges for the space they occupy at ticket counters, gates, baggage handling, maintenance, and catering facilities, and also pay takeoff and landing fees, parking fees, and fuel fees.
- Two methodologies dominate computation of airline fees and charges under airport use agreements – the residual method, and the compensatory method.

Residual Agreements

- In a *residual agreement*, the signatory airlines accept the financial risk, and guarantee to provide the airport with sufficient revenue to cover its operating and debt-service costs.
- The airport deducts an agreed amount of non-airline (concession) revenue from its expenses, leaving the airlines responsible for the remaining (residual) amount. Airline rates then are set accordingly.
- Airlines bear the risk that their fees will be increased should concession revenue fall short, or costs exceed projections.
- Airlines typically stand behind the revenue bonds with "use and lease agreements", pledging to make up the difference in revenue shortfalls by paying higher landing fees. In the US, the *quid-pro-quo* for the residual funding agreement historically has been a long-lease term for gates, and a "majority-in-interest clause" giving airlines a say (often an effective veto) over airport expansion, and a return of excess revenue collected, often in the form of lower landing fees.



Compensatory Agreements

- *Compensatory agreements* usually exist at mature airports that have achieved successful revenue generation, whereby the airport undertakes the risk of meeting its costs.
- Under the compensatory method, an airport is divided into various cost centers (such as airfield, terminals, parking areas), and airlines pay a share of those costs, based on the amount of space they occupy (at, for example, ticket counters, gates, and baggage sorting and catering facilities), landing and departing aircraft, and other measures of airline use.
- The airport retains concession revenue for discretionary capital improvement projects.



Setting Concession Charges



- Concession fees may be variable or fixed.
- Variable fees are usually stated as a percentage of sales, or less commonly (because of difficulties of monitoring and auditing profit), a percentage of net profit.
- Some airports impose an increasing percentage as the volume of business increases.
- Most airports that use variable fees also stipulate a minimum payment.
- Fixed concession fees are usually applied to those activities likely to yield only modest profits (e.g., barber, book, flower, newspaper, photo slot-machines, and taxis).
- Some airports divide space into different zones, charging higher fees for more desirable locations.

Privatization

Privatization is a megatrend that has swept through:

- Airlines
- Airports
- ANSPs



What is Privatization?

- “Privatization” is the sale of a controlling interest in a governmentally-owned enterprise.
- “Private participation or involvement” better describes a private-sector management contract, lease, minority equity position, or public-private partnership.
- “Corporatization” describes a situation where the State creates an entity outside government, but retains ownership. Often, these are non-for-profit.





Margaret Thatcher: Queen of Privatization

Steel mills
Telephone services
Power plants
Automobile manufacturing
Coal Mines
Railroads

British Airways 1987
British Airports Authority 1987



McGill

Airport Privatization

- The United Kingdom was the first to corporatize its airports, in 1966.
- In 1987, the UK became the first major entrant into the land of airport privatization, with its \$2.5 billion sale of British Airports Authority [BAA] which controlled seven major airports: London's Heathrow, Gatwick, Stansted, and Southhampton and three airports in Scotland.
- The government continued to provide oversight of airline access, airport charges, safety, security and environmental protection, and retained veto power over airport investment or divestiture.



Examples of Privatized/Corporatized/Leased or Privately Managed Airports

- Argentina
- Australia: most former federal airports
- Austria: Vienna Airport
- Canada: Major Airports
- Germany
- Hungary
- Italy
- Malaysian Airports Berhad
- Mexico
- The Netherlands
- New Zealand: Wellington and Auckland
- The Philippines
- South Africa



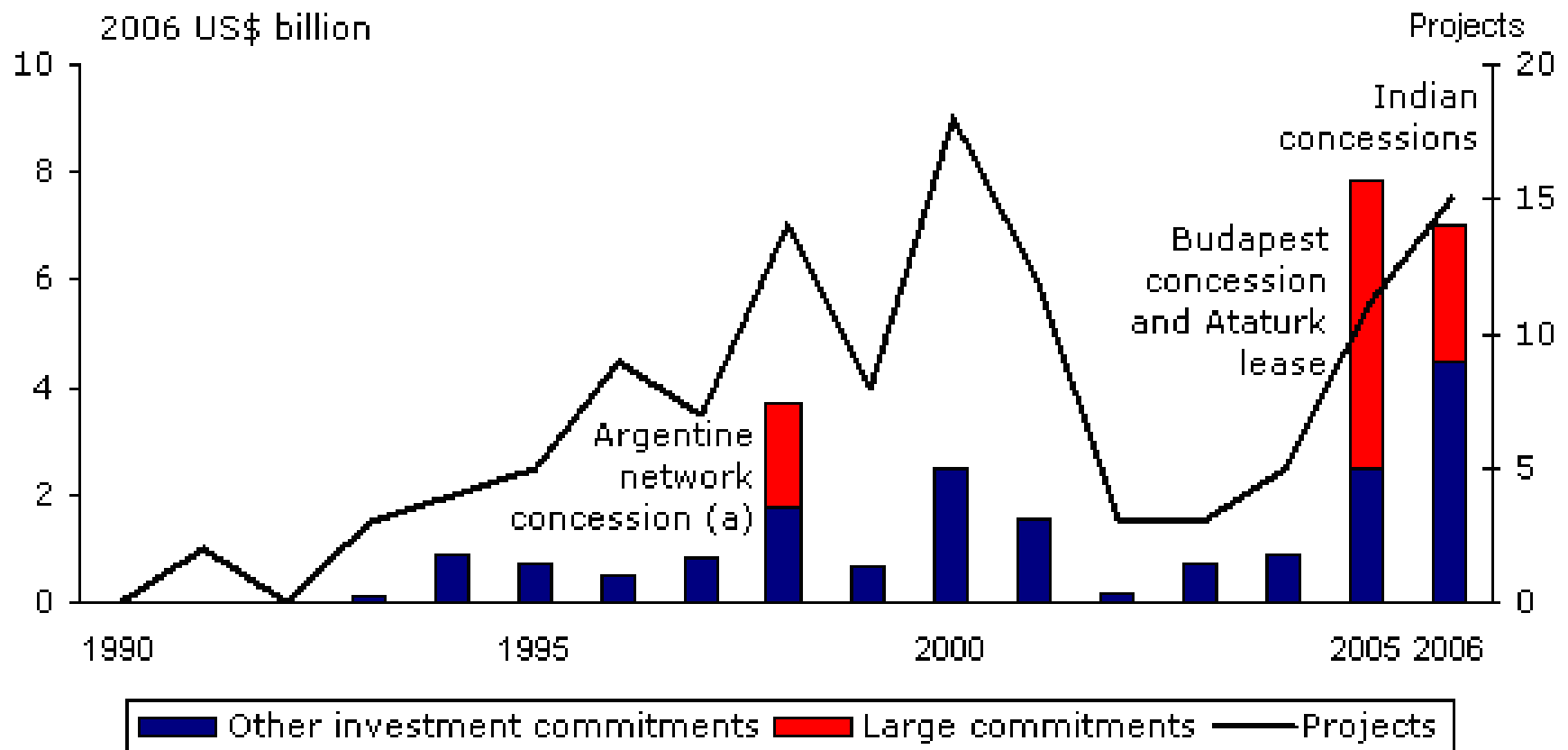


CABINET WILL DECIDE ABOUT

AIRPORT PRIVATIZATION SOON



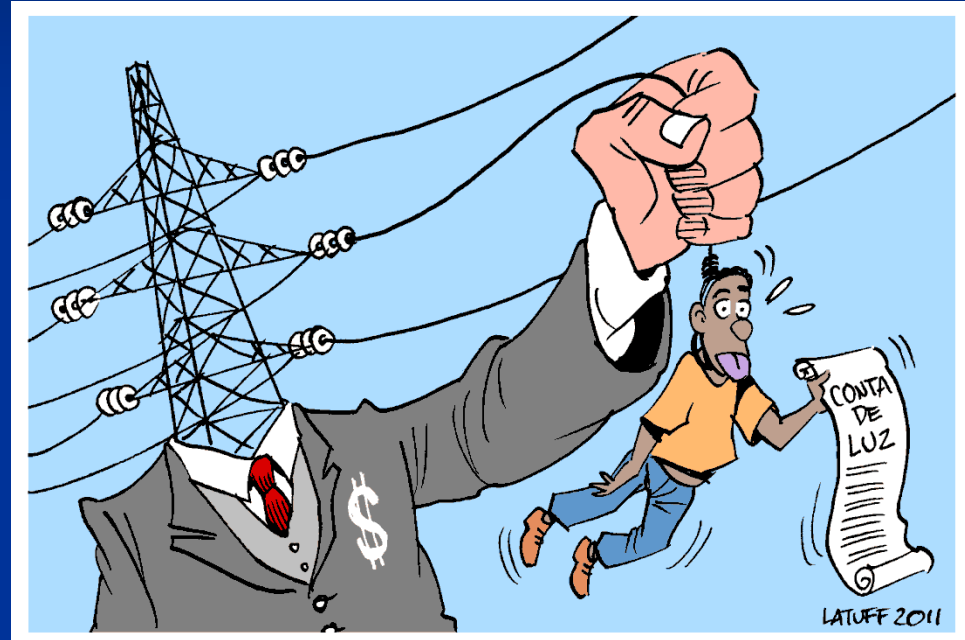
Figure 1 Private participation in airport projects in developing countries



Source: World Bank and PPIAF, PPI Project Database.

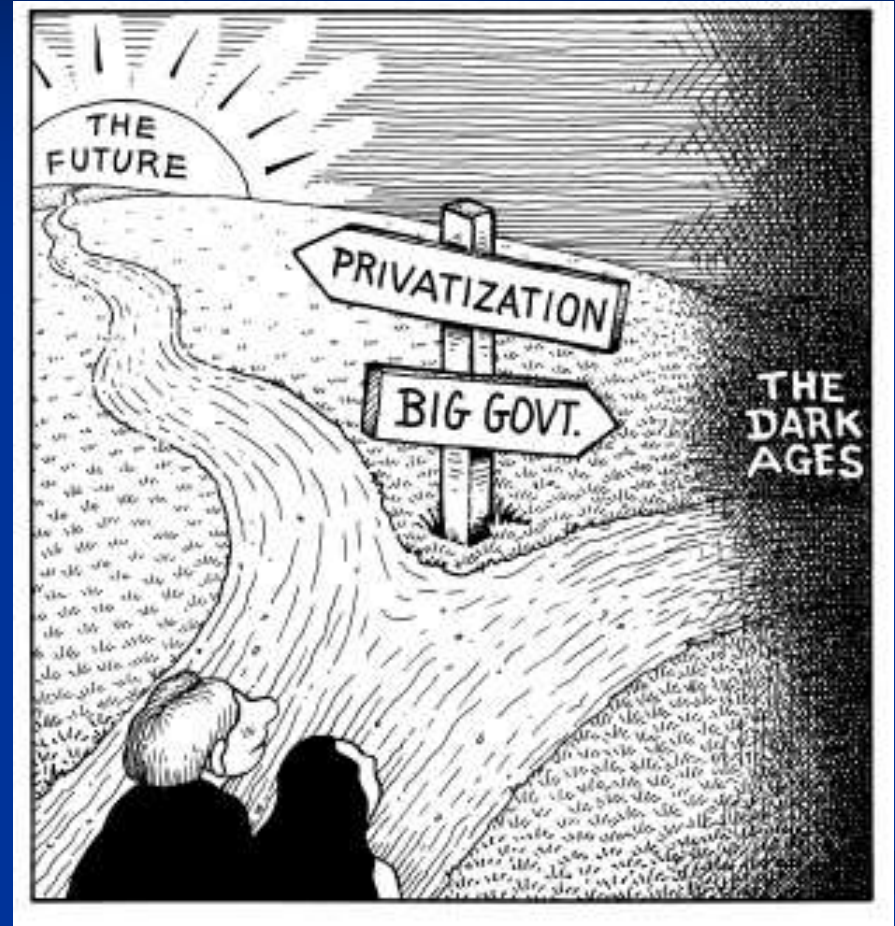
Privatization has swept through many industries:

- Malaysia sold its National Lottery,
- Buenos Aires sold its zoo,
- Czechoslovakia sold the guest house of the Communist Party, and
- Austria and Nigeria sold their telecommunications companies
- Some jurisdictions in the US have privatized prisons



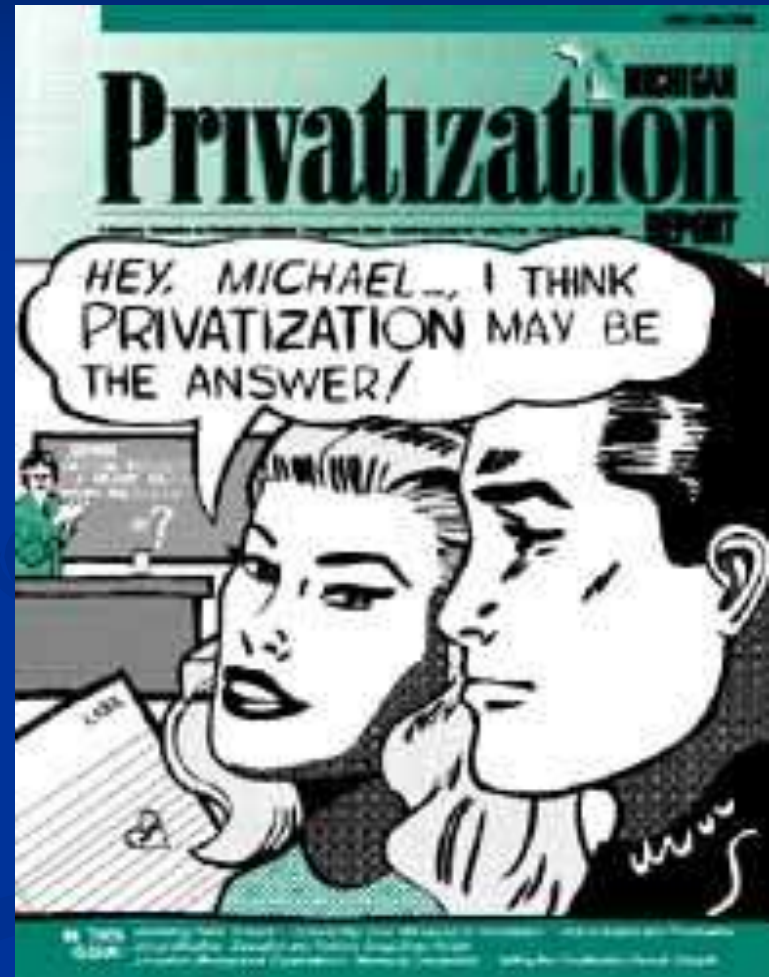
Motivations:

- Reduce Inefficiency
- Eliminate civil service regulations
- Eliminate government procurement policies
- Enhance access to capital markets
- Stimulate innovation and responsiveness to market needs
- Liquidate public investment to pay for the social welfare needs of an aging population



Problems of Traditional Governmental Institutions

- Governmental institutions have had difficulty in keeping pace with the capital needs to accommodate rapidly growing traffic demands and maintain high levels of safety in aviation;
- Governmental institutions usually are restricted in their ability to borrow money in capital markets to finance infrastructure improvements.
- Governmental institutions are subject to governmental procurement and decisional policies and practices, imposing bureaucratic efficiency impediments; and
- Governmental institutions are subject to civil service labor costs and staffing levels undisciplined by market forces.



Advantages of Privatization

- It stops loss-making public sector enterprises from adding to government debt;
- It depoliticizes public sector enterprises, removes governmental pressures for over-manning and the sub-optimal use of resources;
- It gives new owners a strong incentive to turn around failing public sector enterprises into successful businesses;
- It gives new businesses access to investment capital that government cannot provide;
- It raises more money for government through taxing former public sector enterprises; . . .
- Profit incentive may deliver better outcomes, by for example, staff down-sizing to increase efficiency, enhanced staff motivation, and cheaper prices to be competitive.
- If floated on the stock exchange at a good price, investors can earn attractive returns on investment through increased business revenue, efficiency and profitability. . . .

Source: Titiloye Oyebanji

+2348034039830

THE PROS AND CONS OF
PRIVATIZATION

Disadvantages of Privatization

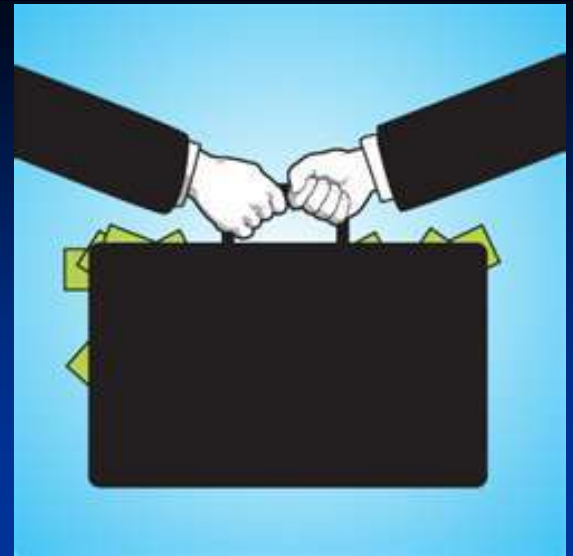
- Government no longer receives profits (if it was previously profitable), therefore, the revenue accruing to the government from public sector enterprises is reduced.
- Downsizing could result in increased unemployment.
- Prices may rise if the service was previously subsidized by the government.
- Privatization alone may not lead to better quality or cost reduction in public service delivery.
- The standard economic measures used to make privatization decisions fail to accurately assess the real costs and benefits of care. . . .
- The privatized company will no longer operate in the public interest. While a state-owned company primarily serves the citizens of the state, the primary goal of a privately operated company is to make profit. It may make these profits at the expense of its customers without serving them properly. . . .
- Privatization may decrease safety or service due to greater profit incentives.



Source: Titiloye Oyeboji
+2348034039830
THE PROS AND CONS OF
PRIVATIZATION

Corporatized Organizations can be

- For-Profit, or
- Non For-Profit



Organizational Structures

Organizations

Degree of Commercialization

0%

State Authority (CAA)
Autonomous State Entity
State-owned Corporation (Crown corporation)
Concession/Lease (all or part of the facilities)
Partial Privatization (e.g. non-aeronautical)
Not-for-profit (stakeholder owned) Corporation
Fully Privatized Company (publicly traded shares)

100%

RNAV (GPS) RWY 35

ELEV 529
TIDE 54 525
CYR

Advantages of NGOs

- Typically, they are financially self-sufficient, weaned from government subsidies; not a burden on the federal treasury;
- They are better able to raise capital in the market, and thereby meet growing capacity needs;
- They may be more efficient, and more capable of reducing costs for users, and subsidy requirements from governments;
- They can have governance structures allowing users greater access and input on decisionmaking; and
- They sometimes move to a more equitable user-charge approach to cost allocation.

NAME	10-40	10-40	11-40	NOT AUTH
COROLLARY	(M) 10	(M) 2	(M) 2	NOT AUTH

NOTES:
When using this chart,
also refer to the 10-40 to 11-40.

10-40	10-40	10-40	10-40	10-40	10-40
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IATA's Concerns About Corporatization

“Commercialization may have a negative side, in particular when the principal objective is to maximize profits. No matter what organizational form an airport or ANSP assumes through the process of commercialization, it remains by its nature a monopoly on which the users are completely dependent. There are a growing number of cases of abuse of this monopolistic situation by newly created commercial organizations, often with the complicity of the governments concerned.

“IATA's experience is that, in many cases, commercialization has resulted in significant increases in the airport and ANS cost base that are used to determine charges. In addition, the promised increases in efficiency and productivity have not always materialized.”

ICAO Position on Airport Privatization/Corporatization

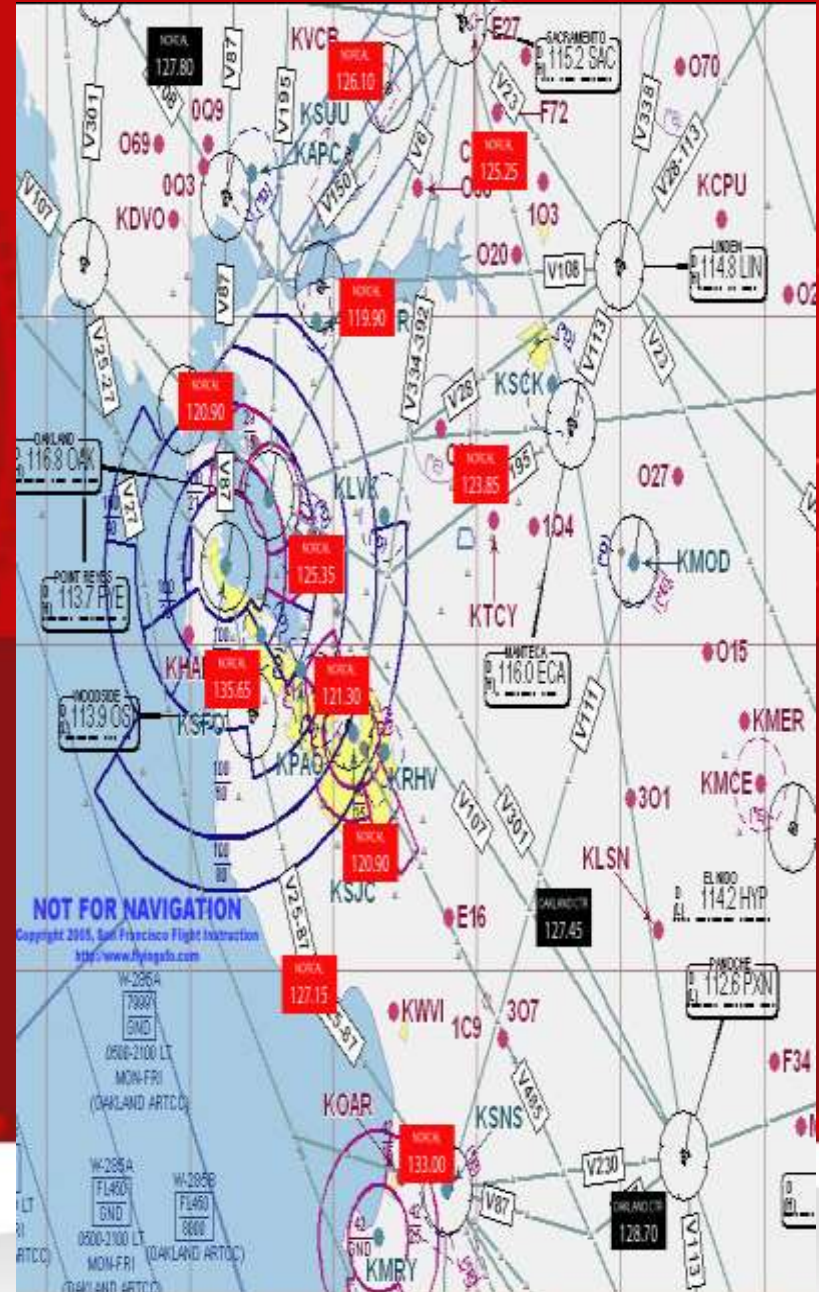


- States cannot delegate their obligations “to ensure safety, security, efficiency and economics of airport services to a private entity.”
- ICAO neither supports nor opposes airport privatization.
- ICAO recommends the establishment of autonomous authorities for the management and operation of airports, with operational and financial independence.
- ICAO recommends the institutional strengthening of the aeronautical authority prior to privatization.

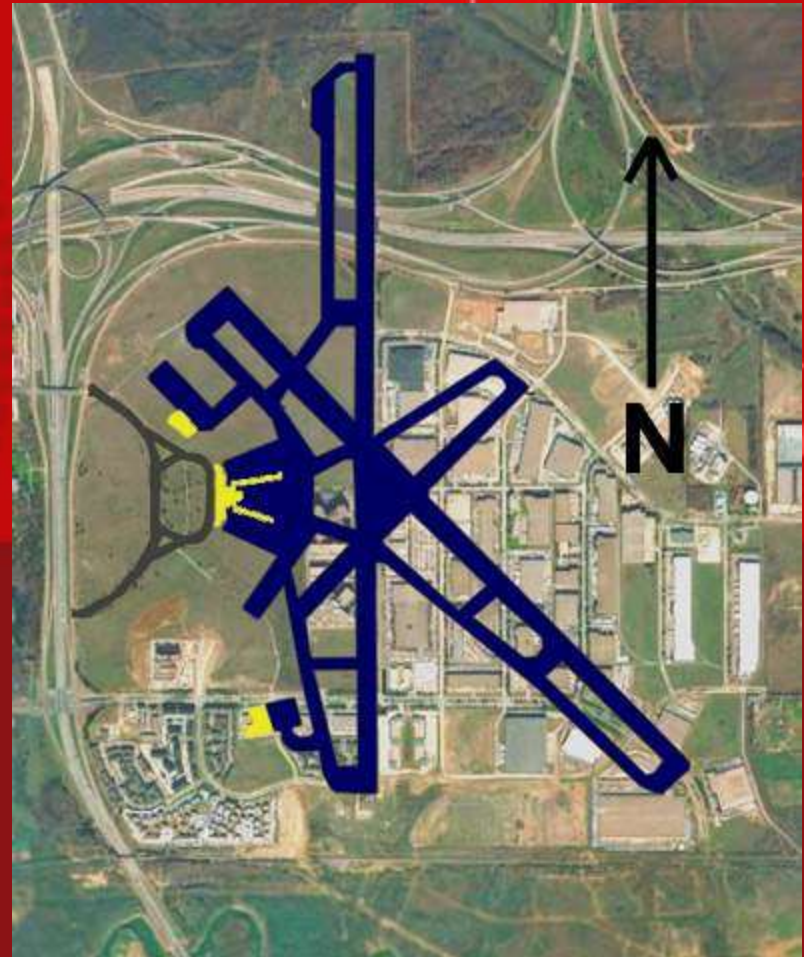
Full Privatization Is Not Desirable for Activities That:

1. Are essential for the community's welfare; and
2. Have the potential to result in monopolistic exploitation of the public.

Airports and air navigation services have these characteristics.



Access to private debt or equity requires profitability; private investors will not invest without a reasonable return on investment. Unless greater efficiencies are achieved, this cost must be passed through to users.



Regulation

- Governments which have privatized airports have adopted one of four regulatory approaches
 1. Rate of return regulation (e.g., Spain, France, Greece and the Netherlands);
 2. Rate of return price caps (e.g., the United Kingdom);
 3. Aeronautical price caps (e.g., Australia, Austria, Denmark and Mexico); and
 4. Negligible governmental oversight (e.g., Canada, New Zealand, and the United States).



STRENGTHS AND WEAKNESSES OF AIRPORT REGULATORY APPROACHES

	Rate of Return	Rate of Return Price Cap	Aeronautical Price Cap	Government Oversight
Predictable Aeronautical Prices	Moderate	Moderate	Strong	Weak
Predictable Airport Profits	Strong	Moderate	Weak	Weak
Improving Airport Operating Efficiency	Weak	Moderate	Strong	Weak
Ability to Attract Investment Capital	Strong	Moderate	Moderate	Strong

Upon privatization as a for-profit corporation, BAA had a regulatory cap on charges the airport could impose on airlines tied to the UK consumer price index.



Duties of the Regulator

- prevent overcharging and other monopolistic practices;
- ensure transparency as well as the availability and presentation of all financial data required to determine the basis for charges;
- assess efficiency and efficacy in the operations of providers;
- review standards and quality of services providers; and
- monitor investments planned in relations to traffic forecast.

Canadian vis-à-vis US Costs

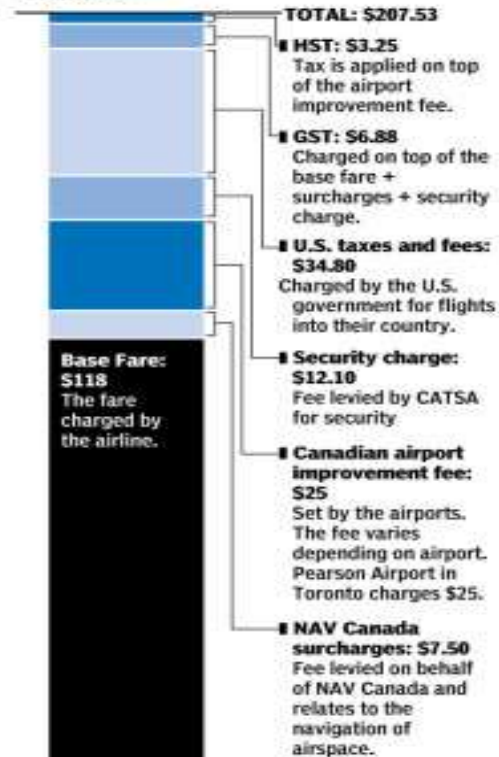


FLYING OUT OF TORONTO OR BUFFALO?

TORONTO AIR DEPARTURE VS BUFFALO AIR DEPARTURE

TYPICAL COST OF AIRFARE TO ORLANDO, FLORIDA, IN CANADIAN DOLLARS

TORONTO*



BUFFALO**

TOTAL: \$144.88

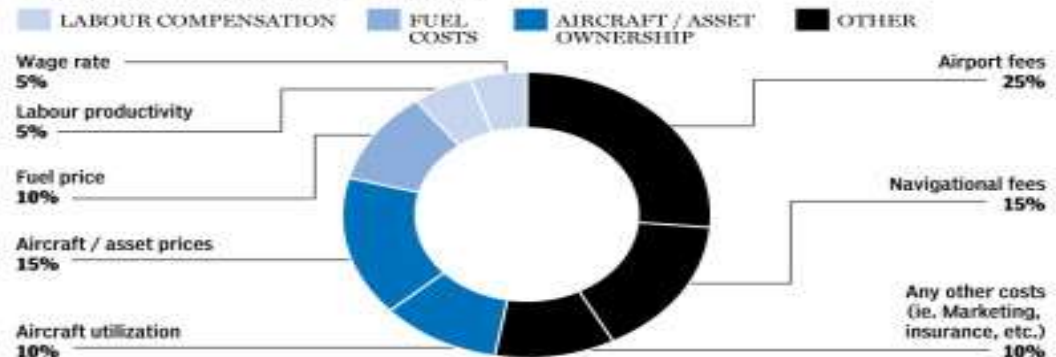
Taxes: \$20.88
Charged on top of the base fare

Base Fare: \$124
The fare charged by the airline.

*Fares provided by a Canadian-based airline ** Taken from a web sale of a U.S. airline

SUMMARY OF CANADIAN AND U.S. CARRIER COST DIFFERENTIALS

PERCENTAGE OF TOTAL COST DIFFERENCE



SOURCES: CONFERENCE BOARD OF CANADA, THE FUTURE OF CANADIAN AIR TRAVEL; TOLLBOOTH OR SPARK PLUG?; THE STANDING SENATE COMMITTEE ON TRANSPORT AND COMMUNICATIONS

ANDREW BARR / NATIONAL POST

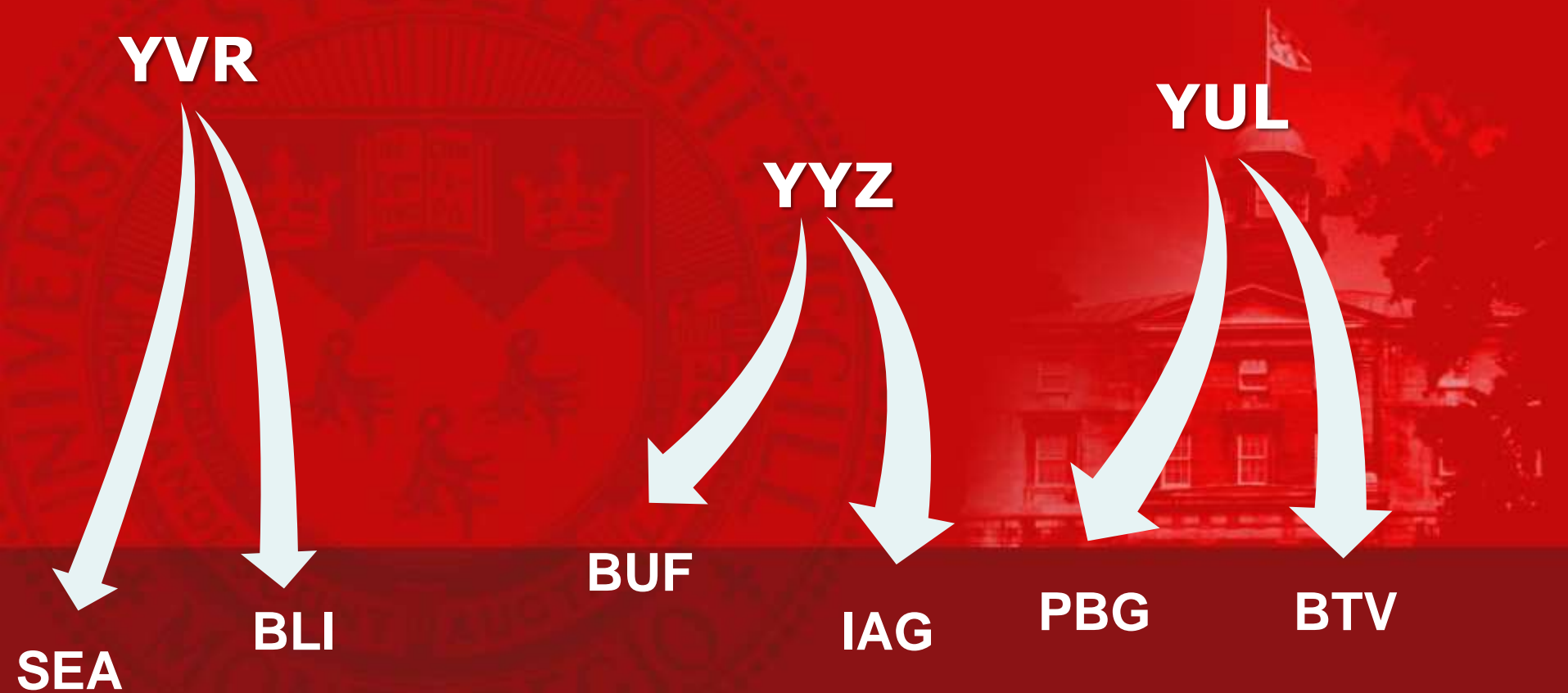
Studies on the Hidden Land Tax

The Conference Board of Canada concluded that:

- 5 million Canadians a year cross border to catch cheaper flights.
- If the federal government reduced or eliminated many of the fees and taxes it levies on the airline industry, it could potentially bring two million passengers back to Canadian airports a year.
- Canadian carriers suffer a 30% cost disadvantage vis-à-vis their U.S. counterparts. Airport fees account for 25% of the difference.
- Ground rents average about \$3 a passenger nationally, ranging from 77¢ a person in Edmonton to \$4.63 a person at Pearson.
- Approximately \$2.5-billion has been collected from the country's various airport authorities since the federal government transferred them in 1992.

The C.D. Howe Institute concluded that:

- In 2012 dollars, the asset book value of Canadian Airports at the date of transfer was \$2.9 billion in 2012 dollars; the cumulative rent paid since transfer was over \$5 billion.



Fees and Taxes at US crossborder airports: \$44
Fees and Taxes at nearby Canadian airports: \$114





Fee comparison example for a party of four, flying roundtrip to Myrtle Beach in April 2014 (Saturday to Saturday)

If flying from the Toronto Pearson Airport (YYZ) :

Total for Airline Tickets (party of 4) \$1,719.98
1 Week Parking (lowest priced discount lot) \$87.34
Total cost \$1,807.32

If flying from the Niagara Falls Airport (IAG):

Total for Airline Tickets (party of 4) \$677.20
1 Week Parking (lowest priced discount lot) \$50.00
Total cost \$727.20

Vacation in Myrtle Beach? -By flying out of The Niagara Falls International Airport, instead of Toronto Pearson, a family of four could save: \$1080.12 (US \$)



**When you save time and money,
you'll start every trip with a smile.
You can fly U.S.!**



Canadian flyers boost Bellingham airport to \$17-million expansion

By Zoe McKnight, Vancouver sun June 29, 2012

Bellingham International Airport will soon be three times the size it was three years ago, thanks to a boom in Canadian travellers. A \$17-million, 60,000-square-foot addition to the main terminal, ticketing and baggage claim area began in April, and a 20,000-square-foot renovation of the passenger gates was completed last year. By the time the newest renovations are finished in 2013, the airport will have tripled in size.

In 2001, about 125,000 people flew out of Bellingham airport. This year, the airport could see as many as 625,000. Aviation director Daniel Zenk estimated there's been 25-per-cent growth per year for the last six years. That rapid growth is thanks to travellers from the Lower Mainland who are willing to drive the 80 kilometers to save hundreds of dollars on plane tickets. . . .

The lower fares, taxes, and surcharges in American airports were the subject of a Senate committee report on the future of Canadian air travel this year, which found Canadian airports are losing 4.5 million passengers annually to airports just across the border. That amounts to \$1 billion in lost revenue each year, the report said, and urged the government to reduce the taxes and fees associated with air travel.

Canada's Airports

- In 2006, Robert Milton, CEO of ACE, had this to say about Canada's airports:
- They are "poorly managed monopolies."
- There is "inadequate oversight" of Canadian airports.
- "These are natural monopolies and they are by-and-large very poorly managed and life is easy."
- "There is no alternative to them and they can do whatever they want."
- "It's very frustrating when you look at the progress that the world's airlines have achieved in reducing cost when these characters just increase cost."



Toronto Pearson – Gold Plated

Globe editorial - Who's the Pilot of Canada's Airports?

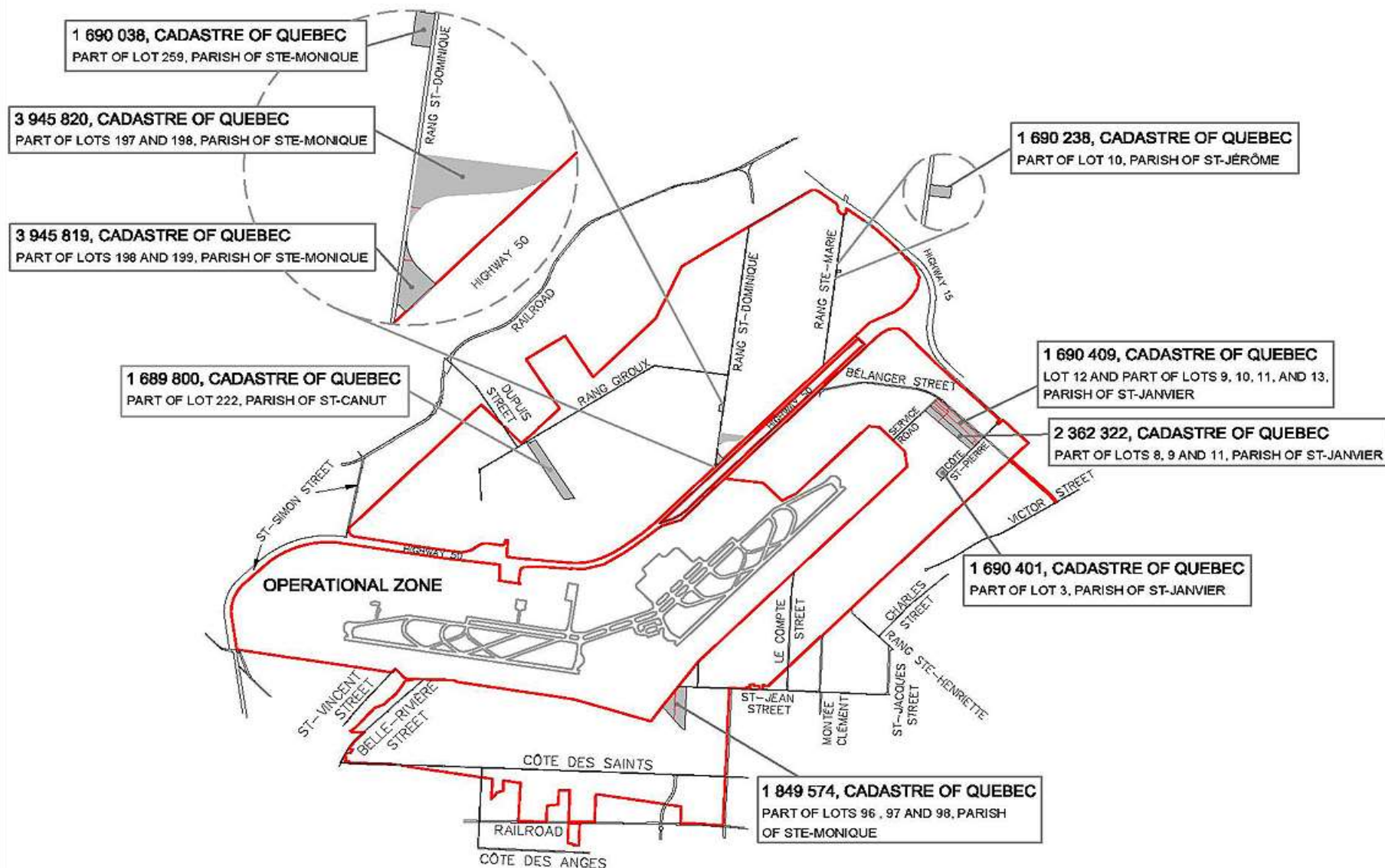
The Globe and Mail, Jan. 15 2014



- The Greater Toronto Airports Authority is a private, not-for-profit corporation with no shareholders. In a sense, its governance is so pure as to disconnect it from consumers and airlines, as well as from the profit motive, ownership and accountability. The largely self-selecting board of directors is appointed under convoluted procedures – for example, a majority of the directors are chosen from among nominees of boards of trade and the self-regulating bodies of lawyers, accountants and engineers. . . .
- Pearson is among the world's most expensive airports for travellers, and arguably is overbuilt. Among the major causes for this may be the federal government's healthy rent revenues and the GTAA's comparative detachment from consumer concerns. . . .
- The federal government held on to the land at Pearson and other airports, charging substantial rent, but it handed the running of the airports, and the setting of airport fees, to boards of directors that are not accountable to Ottawa or, really, anyone. . . .
- The GTAA and its equivalents across Canada are neither fish nor fowl. If they were either private-sector companies or Crown corporations, people would at least know where to complain, and where to find a chain of accountability. . . . [I]t is time for the government to reconsider the legislation that turned Canada's major airports into non-profit organizations.

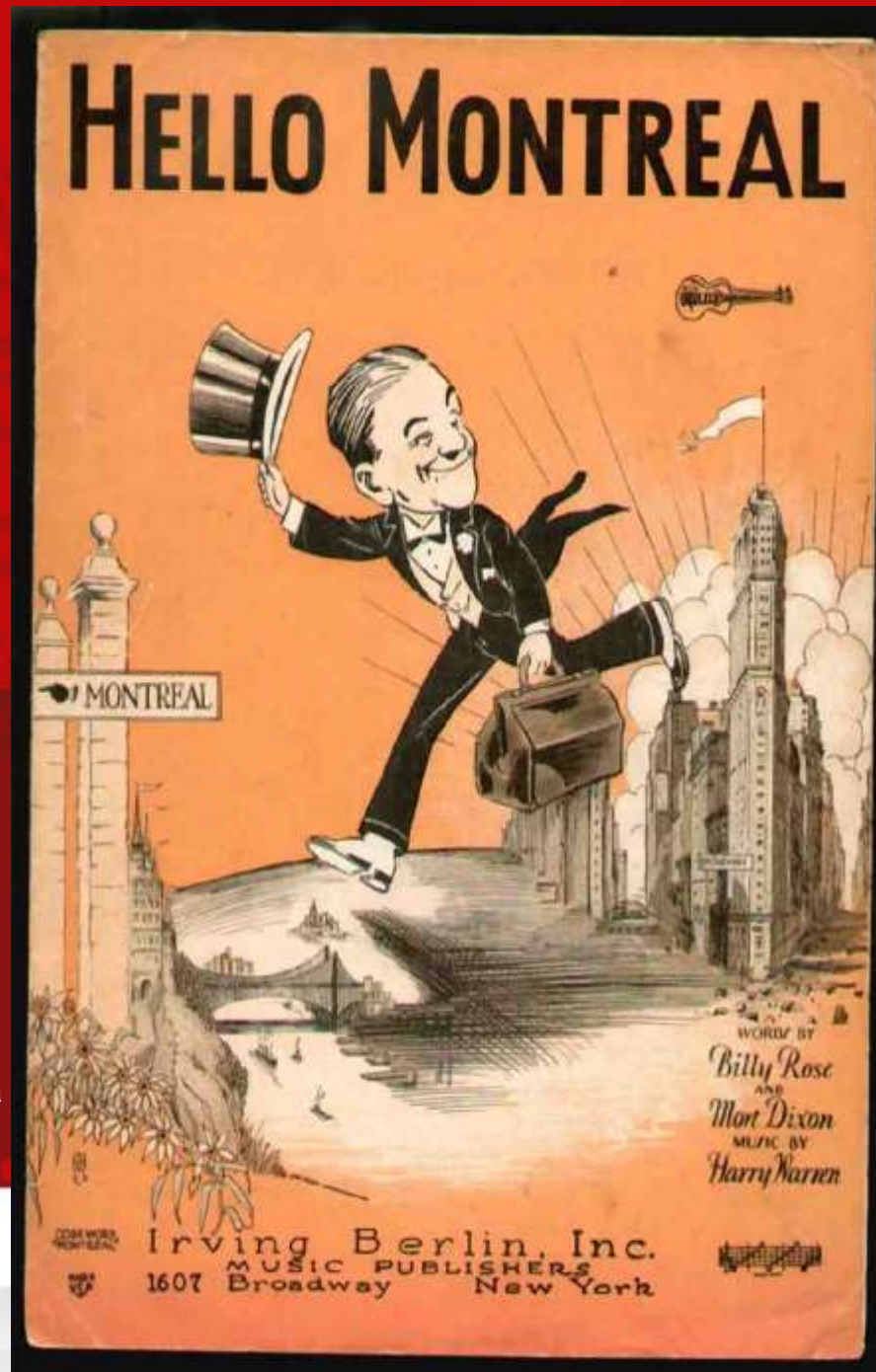
MIRABEL AIRPORT

VACANT PROPERTIES IN THE 11 000 ACRES LEASED AREA



Mirabel – The White Elephant

- As justification for building a new airport, Ottawa predicted that Dorval would be saturated by 1985 with 20 million passengers projected at Montreal's airports annually, with 17 million of those through Mirabel. Mirabel cost \$2 billion (AJI) and was the largest airport in the world in terms of land, with 39,660 hectares (396.6 km²).
- Montréal's Mirabel International Airport opened in time for the 1976 Summer Olympics. International flights were transferred from Dorval Airport to Mirabel immediately, while domestic and US flights were to be served by Dorval airport until 1982. But by 1991, Mirabel and Dorval were only handling a total of 8 million passengers annually, while Toronto was handling 18.5 million passengers. Mirabel never managed to exceed 3 million passengers per year.
- To help Mirabel's numbers, all international flights for Montréal were banned from Dorval from 1975 to 1997.
- No rail line was ever built to connect the city to the airport, and Dorval remained open. Dorval was only 20 minutes away from the CBD, and travel time in good conditions to Mirabel was 50 minutes.
- Only Air Transat operated at Mirabel when it was closed to passenger service on October 31, 2004. It is still used as a cargo airport.



机场动量 JCDecaux



文明机场

CIVILIZED AIRPORT

中国民用航空总局

The Chicago Convention

- The Chicago Convention provides that among the principal purposes of ICAO is to "avoid discrimination between contracting States."
- More specifically, Article 15 of the Chicago Convention requires that "every airport in a contracting State which is open to public use by its national aircraft shall likewise . . . be open under uniform conditions to the aircraft of all the other contracting States" and that airport and air navigation charges imposed on foreign aircraft shall be no higher than those imposed upon domestic aircraft.
- Though a State may recover its costs by assessing fees for air navigation, it may not charge a fee solely for the privilege of flying into, out of, or over its territory. All charges should be published and communicated to ICAO.
- Airport and air navigation charges and fees may be reviewed by the ICAO Council upon complaint of a contracting State.



ICAO Recommendations

- Airport fees should be assessed in a manner in which "users shall ultimately bear their full and fair share of the cost of providing the airport."
- Cost should include the full economic cost, including depreciation and interest, but allowing for all revenue, aeronautical and non-aeronautical. In setting the fees, airlines are not to be charged for facilities and services they do not use, or otherwise not properly allocable to them.
- Landing charges should be based on aircraft maximum permissible take-off weight. ICAO has also approved a cost-based formula based on separate en-route/in-flight and terminal/approach charges, adjusted for aircraft weight and distance flown. Others have suggested additional factors should be considered, such as the time of day, level of airport congestion, and airspace utilized.
- Two types of charges -- security charges and noise-related charges -- should be designed to recover no more than the relevant costs of providing security and noise-abatement equipment and services. In contrast, other charges may produce sufficient revenue to exceed direct and indirect costs by a reasonable margin.
- Airport and air navigation fees and charges may not discriminate between domestic and foreign carriers.

Financial Accounting



- Each airport should establish appropriate financial accounting and control practices (in accordance with recognized accounting rules, standards or conventions) not only to ensure that its economic resources are properly and lawfully deployed, but to give management essential data to operate the airport, and existing or potential lenders a basis on which to make their investment. *Financial accounting* refers to the system in which income and expenses are recorded to present a comprehensive financial picture.
- Typically, the airport will periodically (monthly, quarterly and annually) produce a profit and loss statement and a balance sheet. The profit and loss statement summarized the revenue and expenses over the period, with the difference being the profit or loss.
- The balance sheet summarizes the assets and liabilities, with the difference being an increase or decrease in the airport's net worth over the period.
- The airport should also produce a periodic budget, with a subsequent explanation of positive or negative variances from budget.

Contents of a Balance Sheet

Assets

Current assets

Cash

Short-term investments

Receivable

Inventory

Prepaid expanses

Deferred charges

Other current assets

Total current Assets

Long-term assets

Fixed assets (balance cost)

Long-term investments

Intangible assets (balance cost)

Total long-term Assets

TOTAL Assets

Equity And Liabilities

Current Liabilities

Trade accounts payable

Short-term liabilities

Taxes payable

Accrued liabilities

Current liabilities

Total current liabilities

Long- term liabilities

Long-term liabilities on credit

Total long- term liabilities

Owner Equity

Joint-stock Equity

Additional paid in capital

Retained Earnings uncovered loss

Total Owner Equity

TOTAL Owner Equity AND Liabilities



Financial Control

- *Financial control* refers to the system of monitoring financial performance to ensure that expenses comport with plan, and income flows correspond to budget.
- Financial control is a three-step process: (1) comparing actual income and expenses with plan; (2) determining whether income or expense variances from plan are a problem of the budget, management of the airport, or external factors; and (3) what corrective action should be, and can be, taken.
- Careful accounting and control can also thwart fraud or embezzlement, assuring that the public's resources are well spent. Internal and external auditing should be performed to assure that the financial data is accurate, and to identify waste and embezzlement. Law enforcement should be vigorously pursued against corruption.



Chair:
Speakers:

Paul Stephen Dempsey - McGill University
Victor Aguado - Eurocontrol
Daniel Calleja - European Commission
Nancy Graham - ICAO
Alexander ter Huide - GVA





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