



Twenty years from today...

HKIA 2025



2025

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How large will our population be ?



What businesses will shape our economy ?



Which technologies will we use ?



Will we continue to be an international finance centre ?



How will Hong Kong and the Mainland co-operate ?



Will our airport be able to meet the demand ?



Hong Kong International Airport Plans Ahead

Organisations operating major international airports face two inescapable truths. First, airports are as important to economic development today as highways were in the 20th century, railways were in the 19th century and ocean ports were in the 18th century. Second, airport infrastructure is expensive and takes years to build.

This combination of economic importance and long construction schedules makes planning critical. Airport Authority Hong Kong meets this challenge with a three-tier planning process, comprising an annual budget; a rolling five-year plan; and a 20-year plan that is updated every five years.

Airports are as important to economic development today as highways were in the 20th century

Introduction

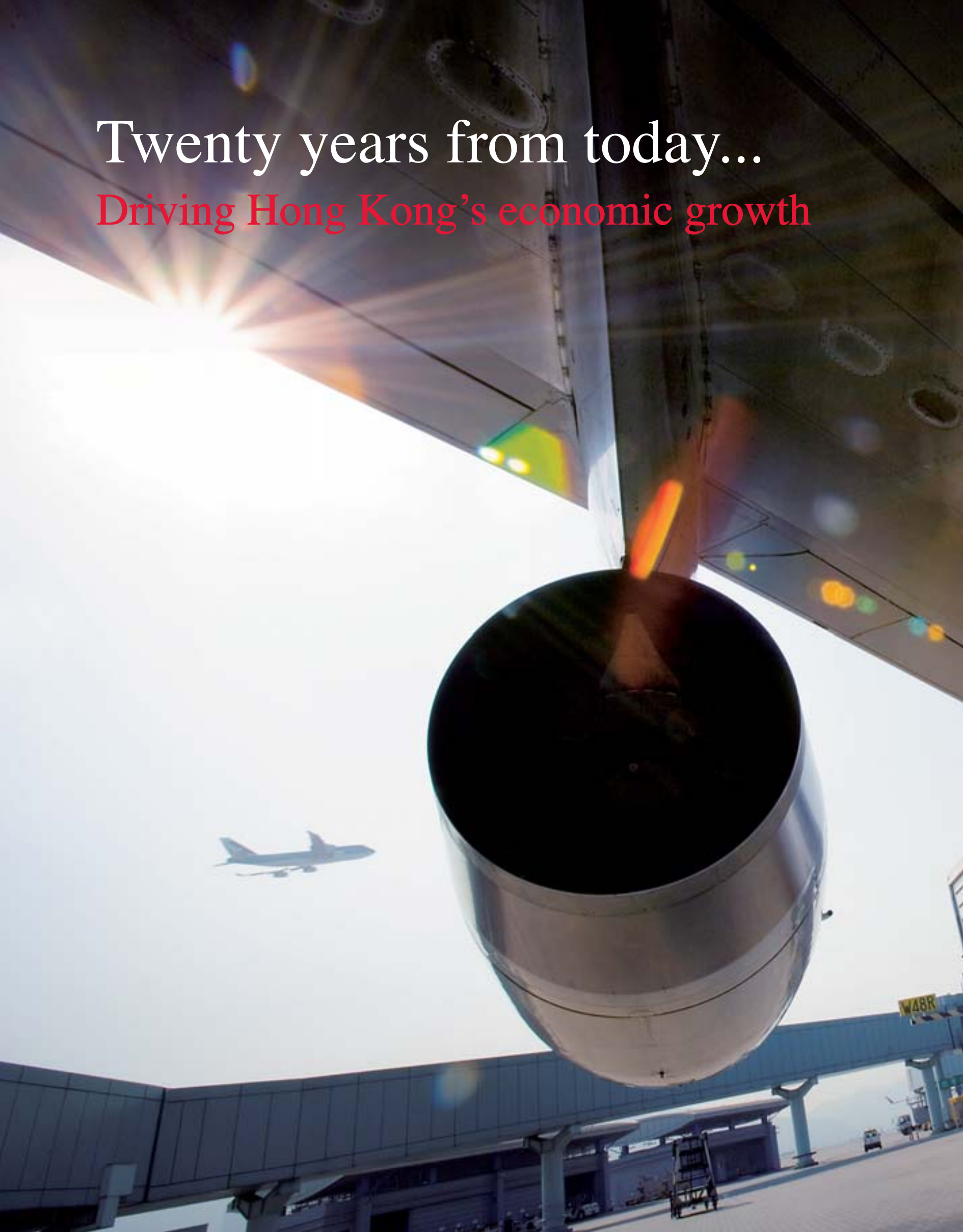
HKIA 2025

HKIA 2025 charts a course for the long-term development of Hong Kong International Airport (HKIA). It continues a process that began with 1992's *New Airport Master Plan*, which provided a framework for building Hong Kong's new airport at Chek Lap Kok. And it builds on the work done in *Strategic Overview of Major Airport Development*, a set of studies that were completed in 2001 and that formed the basis for *Master Plan 2020*.

Purpose

Under the Airport Authority Ordinance, the Airport Authority must operate HKIA as a regional and international aviation centre, maintain a safe facility and run it according to prudent commercial principles. In this context, *HKIA 2025* re-examines the airport's long-term vision, growth strategy and facility planning directions, in light of the competitive environment and projected supply and demand.

Twenty years from today...
Driving Hong Kong's economic growth





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CHAPTER ONE

HKIA and Hong Kong



SUPPORTING THE FOUR PILLARS

Hong Kong is a leading international financial centre, a logistics and communications hub, and a bridge between the Mainland and the world. By facilitating the flow of people, trade, capital and information, HKIA actively supports the four pillars of Hong Kong's economy: financial services, trading and logistics, tourism, and producer and professional services.



HKIA actively supports the four pillars of Hong Kong's economy

In 2005, HKIA handled a record 40.7 million passengers and 3.4 million tonnes of cargo, figures that made Hong Kong the world's fifth-busiest airport for international passenger traffic and the world's busiest airport for international cargo throughput¹. Aircraft movements reached 264,000, over four times the level of two decades ago. Eighty-five airlines now link Hong Kong to more than 150 destinations, including about 40 Mainland cities.

Recent years have seen a shift in traffic patterns at HKIA. Previously, HKIA was primarily an origin and destination (O&D) airport, serving travellers who were arriving or departing from Hong Kong. Today, about one-third of the passengers using HKIA are on

their way to another destination. Non-O&D passengers bring incremental revenue to Hong Kong and encourage carriers to operate more flights, which reinforces HKIA's status as a regional and international aviation hub.

A Strategic Asset for Hong Kong

HKIA plays a significant role in Hong Kong's economy. In 2004, the aviation industry accounted for about 3 per cent, or HK\$36 billion², of Hong Kong's gross domestic product (GDP). If indirect contributions are included, it is likely that the contribution is close to 8 per cent, based on analysis on the industry's role in global GDP³.

HKIA provides direct employment to about 60,000 people

The airport also provides direct employment to about 60,000 people. Based on the UK

experience, total airport-related employment (including suppliers of goods and services to airport companies) could be over three times that number⁴.

An organisation-wide commitment to quality and service ensures that HKIA maintains a critical mass of carriers, destinations and commercial infrastructure. This in turn gives travellers and shippers a wide range of choices and makes Hong Kong a convenient, competitive location for business.

These efforts have earned numerous awards in international competitions and customer surveys and from industry associations and trade journals. In October 2006, *Travel Trade Gazette* named HKIA the Best Airport for the fourth year. And in 2005, HKIA was voted the world's best airport for the fifth consecutive year in the annual Skytrax survey.







Toward 2025

With China’s growing economic influence and Hong Kong’s increasing integration with the Mainland, the Airport Authority envisions Hong Kong International Airport as one of the most important gateway hubs of China in 2025. In this way, HKIA will continue to contribute to Hong Kong’s sustainable economic growth and its integration with the Mainland.

Hong Kong International Airport aspires to be one of the most important gateway hubs of China in 2025

By 2025, the Airport Authority envisions that HKIA will:

- Serve an expanded home market, comprising the Pearl River Delta, the Pan-PRD region⁵ and the Mainland as a whole
- Operate a comprehensive network serving Mainland destinations
- Provide an unrivalled international network connecting China to the world

Twenty years from today...

HKIA as the service centre for the world's top destinations





CHAPTER TWO

The Challenges and Opportunities Ahead

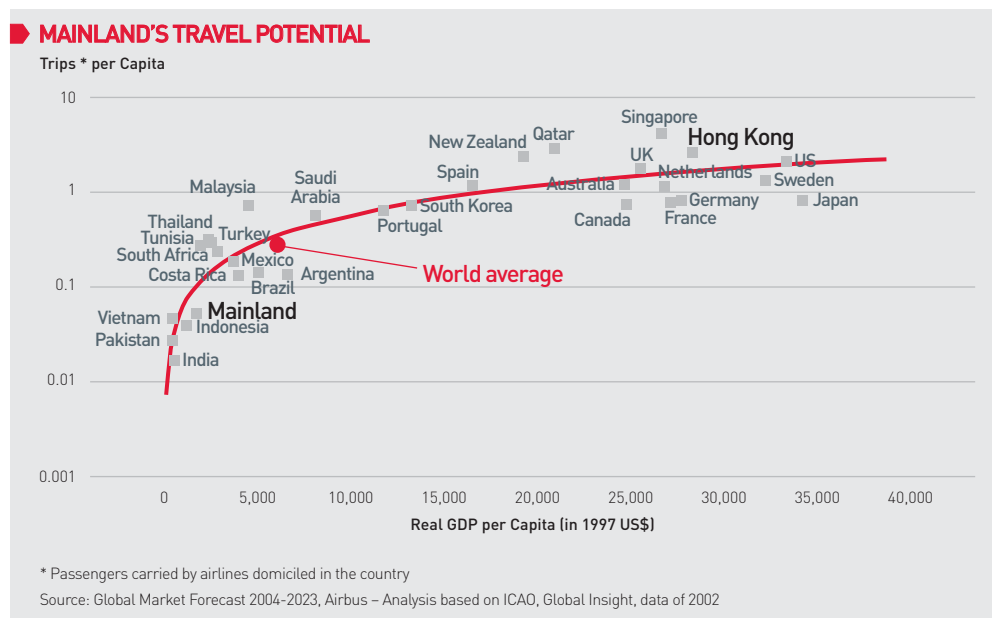
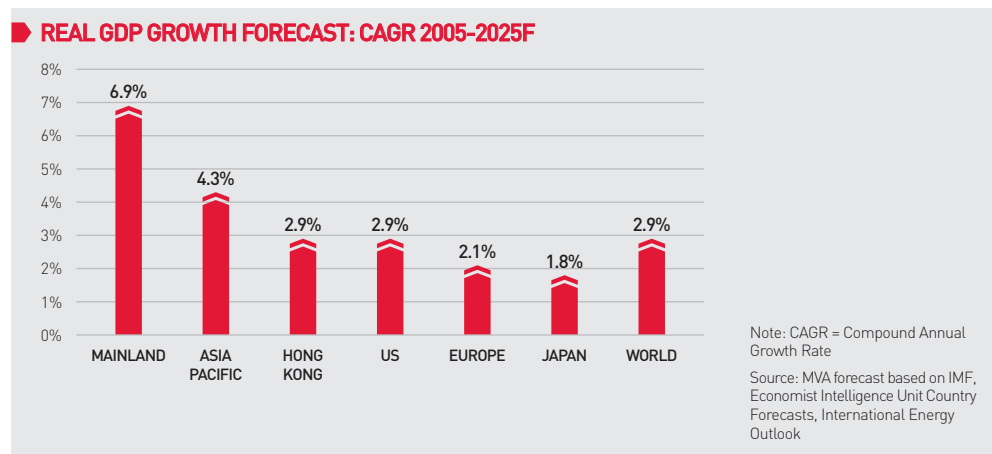


HKIA's operating environment is shaped by three key factors: demand, competition and supply.

DEMAND

Over the next 20 years, the general demand for aviation services is expected to remain positive. The pace of cross-border economic integration will quicken and world trade is expected to experience annual growth of 7-8 per cent, driven by exports from Eastern Europe, Asia and the Mainland⁶. The global population is forecast to reach 7.8 billion by 2025, with Asia remaining the world's most populous continent⁷ and China the most populous nation⁸.

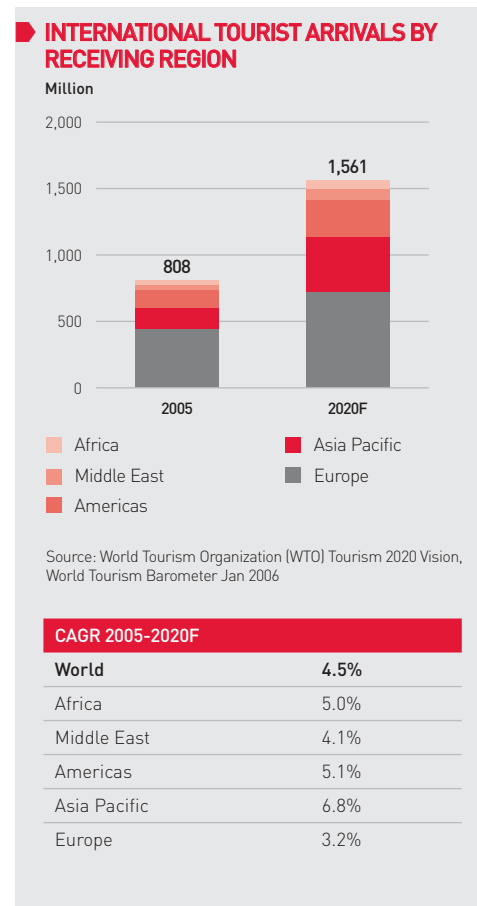




Increasing globalisation – characterised by faster communications, improved transportation, increased flows of goods and services, labour mobility, the proliferation of technology and ever-more rapid financial flows – should hasten the pace of cross-border economic activities.

By 2020, Hong Kong is expected to receive nearly 57 million visitors each year

The integration of Hong Kong and Guangdong Province, which has been under way for the last two decades, is likely to accelerate. Services, which comprise nearly 90 per cent of Hong Kong's GDP, will keep growing in importance, while the industrial and economic development of the Pearl River Delta (PRD) will continue. In this environment, Hong Kong's role as a service centre will remain critically important to the Mainland's development.



Tourism

With a positive economic environment, tourism will continue to grow. International tourist arrivals are forecast to approach 1.6 billion in 2020.

The Asia-Pacific region is expected to receive over 400 million arrivals by 2020, with the Mainland attracting 130 million and Hong Kong nearly 57 million.

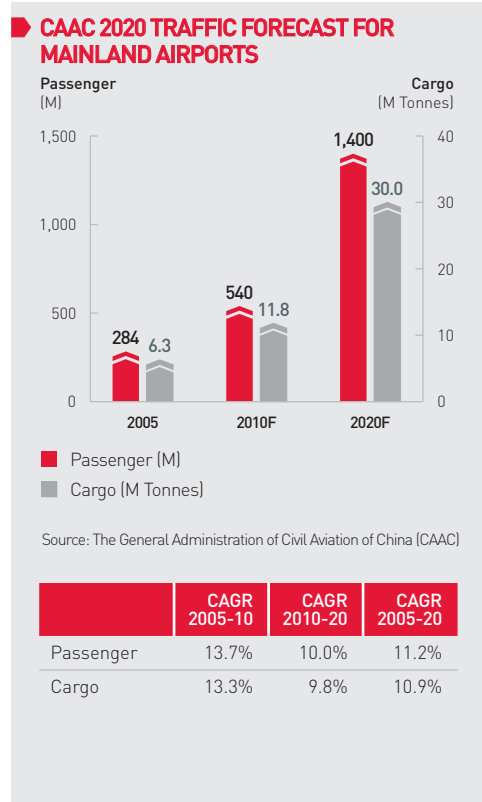
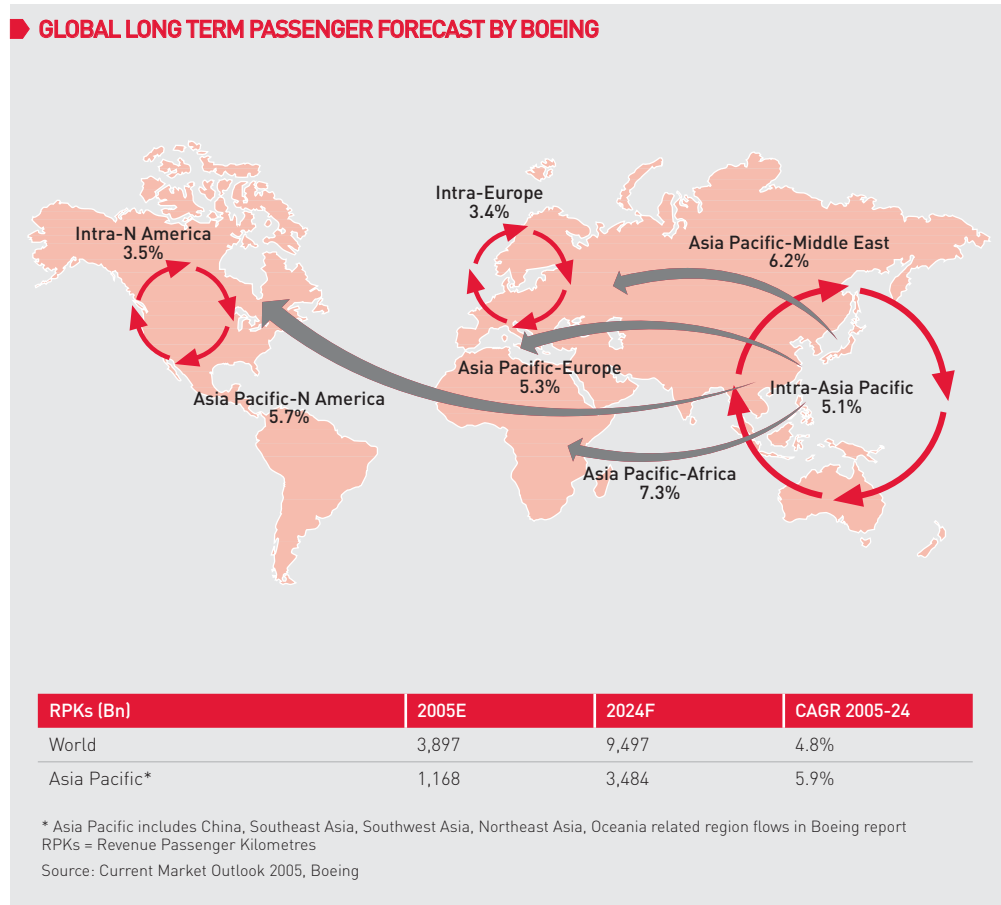
In 2020, the Asia-Pacific region is expected to generate over 400 million outbound journeys, of which the Mainland will represent 100 million⁹. In 2005, just 31 million¹⁰ Mainland residents – about 2 per cent of the population – travelled abroad. Compared with countries like the US, where outbound departures represent over 15 per cent of the population, the Mainland has enormous growth potential.

Aviation

The aviation industry will benefit from these positive economic and tourism trends. Boeing's long-term forecast shows global passenger traffic increasing at about 5 per cent per annum to 2024, with the Asia-Pacific region growing faster, at nearly 6 per cent.

Similarly, global cargo traffic is expected to expand at around 6 per cent a year. According to an Airbus study, cargo flows from Asia will continue to show the fastest growth, particularly traffic from the Mainland to the US and Europe¹¹.

A long-term forecast by the General Administration of Civil Aviation of China (CAAC) also predicts robust growth. Between 2005 and 2020, both passenger and cargo traffic at Mainland airports are expected to enjoy annual growth rates of over 10 per cent. By 2020, total annual traffic will approach 1.4 billion passengers and 30 million tonnes of cargo – nearly five times current numbers.



COMPETITIVE ENVIRONMENT

The Mainland

HKIA's competitive landscape has become increasingly complex and dynamic. The rapid liberalisation of the Mainland's air services regime allows more international flights to serve Mainland airports, reducing the need for passengers to transfer through Hong Kong. With this in mind, HKIA cannot simply wait for traffic; it must work to attract cargo and passengers in a highly competitive market.

HKIA must work to attract cargo and passengers in a highly competitive market

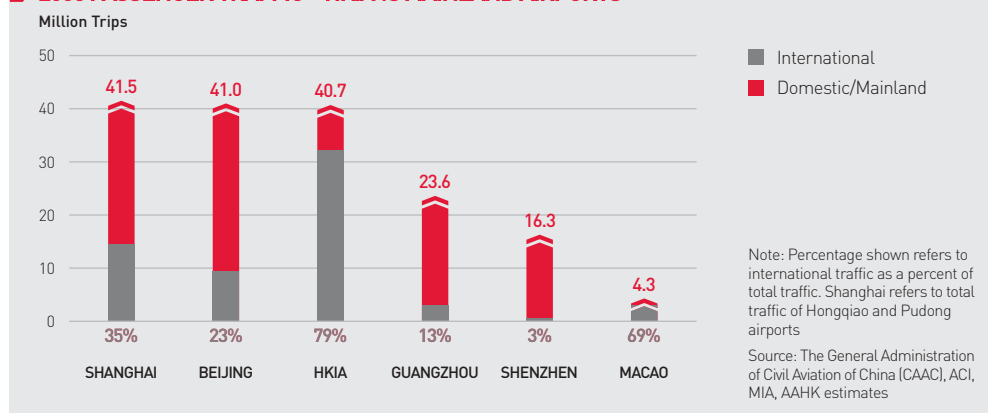
That competition is unlikely to diminish. Some RMB140 billion has been budgeted for the expansion of the Beijing, Shanghai and Guangzhou airports and the construction of 42 new airports. By 2010, the Mainland is expected to have three mega hubs, seven large hubs, 24 medium-sized airports and 124 small airports¹².

Major Mainland airports continue to enjoy strong growth in passenger and cargo traffic. In terms of total passenger traffic, both Beijing and Shanghai¹³ surpassed Hong Kong in 2005. By 2020, the Shanghai, Beijing and Guangzhou airports are expected to top the 2005 passenger volumes at Atlanta and Chicago/O'Hare – the world's busiest airports – and the Mainland aviation market could approach the scale of the US market.

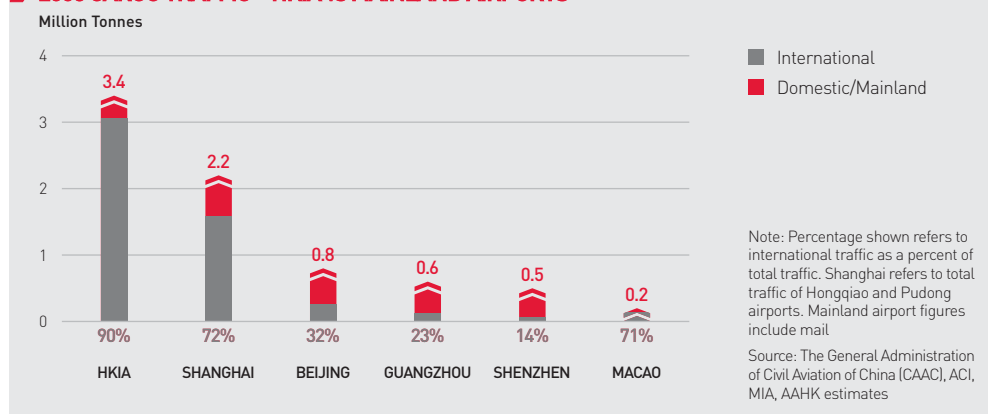
HKIA & MAINLAND AIRPORTS' INTERNATIONAL DESTINATIONS AND FREQUENCIES 2000 vs 2005

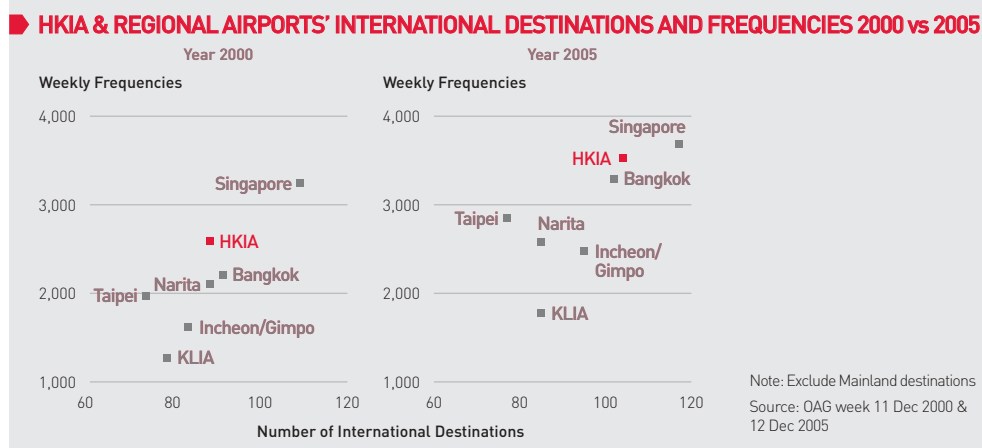


2005 PASSENGER TRAFFIC – HKIA vs MAINLAND AIRPORTS



2005 CARGO TRAFFIC – HKIA vs MAINLAND AIRPORTS





Regional Hubs

Many regional airports are aspiring to be leading hubs in the Asia Pacific. Incheon International Airport plans to become a global top-five hub and a key northeast Asia gateway for passengers and cargo by 2010¹⁴. Singapore and Bangkok are aggressively courting low-fare carriers, developing transfer traffic and targeting growth from both the Mainland and India.

Major expansion plans are put in place. Over the long term, for instance, Incheon and Bangkok are targeting 100 million annual passengers. In view of these developments, HKIA's challenge will centre on working with airlines and other business partners to establish a strong network that facilitates more transfer flows through Hong Kong.

SUPPLY

Airport capacity is determined by many factors, including airspace, terrain, air traffic control and airport procedures, traffic mix, facilities, access systems, and environmental considerations. HKIA's role as a gateway hub means it must cater to everything from commuter aircraft to jumbo jets, and from business jets to freighters. The scale and complexity of HKIA's operations create unique capacity challenges.

HKIA's role as a gateway hub means it must cater to everything from commuter aircraft to jumbo jets

Airspace Constraints

There are five major airports in the PRD competing for limited civilian airspace, which comprises two flight information regions (FIR) controlled by Hong Kong and Guangzhou. Hong Kong handles approach control for the Hong Kong and Macao airports, while Guangzhou handles approach control for the Guangzhou, Shenzhen and Zhuhai airports.

Several factors – including the location of the PRD airports, the orientation of their runways, environmental considerations and the proximity of the FIR boundaries to the airports – result in complex approach and departure procedures. In addition, usable airspace for civilian traffic north of Hong Kong's boundary is limited, and flow control measures on flights operating to the east and northeast of the Mainland cause significant delays.

The CAAC estimates that total daily runway movements at the five PRD airports will approach 5,000 by 2020, more than double current figures. A working group comprising officials from the Mainland, Hong Kong and Macao governments is exploring possible solutions to these constraints.

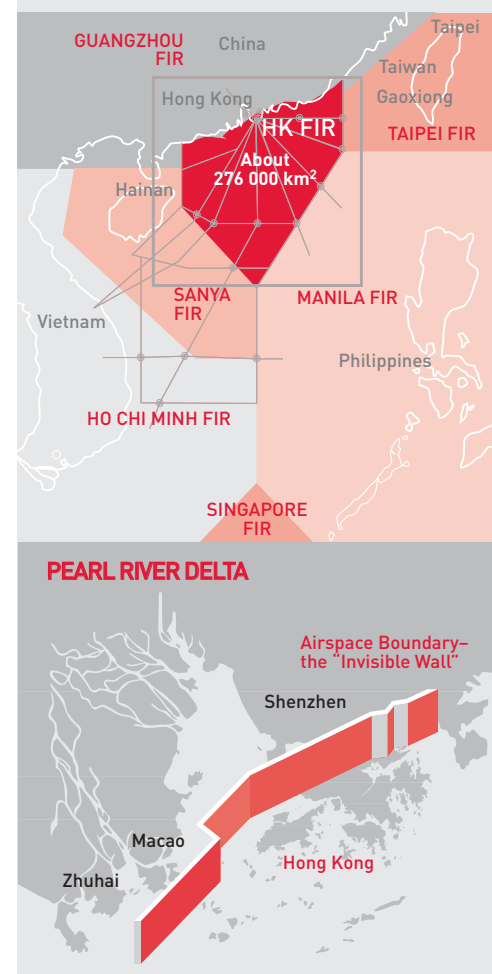
Runway Capacity

Runway capacity is the maximum number of aircraft movements per hour, based on a given service standard. The service standard has two aspects: delays for departure-ready aircraft, which are usually capped at 15-20 minutes in normal conditions, and capacity for contingencies and long-term growth.

If airspace constraints were resolved, adjusting HKIA's air traffic control procedures could increase runway capacity. The Civil Aviation Department is seeking ways to make these adjustments.

To grow, HKIA must address capacity constraints on the ground and in the air

AIRSPACE ISSUE IN THE PRD





Twenty years from today...

One of China's most important gateway hubs





CHAPTER THREE

Growth Strategies

Demand for aviation services is robust. However, demand does not flow naturally to HKIA, because Mainland and regional airports are targeting the same markets. To grow, HKIA must work with key partners and stakeholders to extend its catchment area, improve its network coverage and address its capacity constraints.

The Airport Authority has identified the following strategies to consolidate and enhance HKIA's role as one of the most important gateway hubs of China.

Expand HKIA's Catchment Area

The effective size of HKIA's catchment area is influenced by boundary-control procedures between Hong Kong and the Mainland and by the transportation infrastructure that links the airport to the Pearl River Delta.

With the support of the Hong Kong Government, the Airport Authority is making cross-boundary travel more convenient, with initiatives like upstream check-in and simplified customs, immigration and quarantine processes.

With the support of the Hong Kong Government, the Airport Authority is making cross-boundary travel more convenient



An efficient surface transport network is essential to the airport's role as a regional hub, and HKIA benefits from the government's transport development activities. The opening of the Hong Kong-Shenzhen Western Corridor in 2007 will enhance road connections to the eastern PRD, while the Hong Kong-Zhuhai-Macao Bridge will provide direct access to the western PRD. Ultimately, these new roads will enhance the flow of passengers to and from eastern Guangdong. High-speed rail networks can expand an airport's catchment area, and the Airport Authority supports the development of a link between HKIA and the regional rail network. Ferries will remain an important mode of cross-boundary transport, contributing to HKIA's position as a multi-modal hub.

Strengthen HKIA's Mainland Network

By expanding to more Mainland destinations, HKIA will become a more convenient gateway for people travelling to and from the Mainland.

The Airport Authority's recent joint venture with Hangzhou Xiaoshan International Airport and new management agreement with Zhuhai Airport are important first steps in enhancing HKIA's Mainland network. While the immediate focus will be on maximising the effectiveness of these new initiatives, the Airport Authority will continue to explore opportunities to extend HKIA's Mainland network.

Enhance HKIA's International Network

One of the Airport Authority's main growth strategies is to work with its airline partners to expand HKIA's international network.



HKIA is becoming a more convenient gateway for people travelling to and from the Mainland

By increasing the number of destinations and flight frequencies, passengers, freight companies and shippers will enjoy more competitive prices and a greater range of value-added products and services.

Over the next 20 years, the Airport Authority will continue to encourage Hong Kong-based carriers to expand their networks and support the introduction of new services through initiatives like the New Destination Incentive Arrangement¹⁵.

Promote Hong Kong as a Cargo and Logistics Hub

Continuous improvements in freight systems and infrastructure are essential to expanding Hong Kong's position as a regional logistics hub and a cargo gateway for the Mainland.

In addition to co-ordinating the air cargo service supply chain, HKIA must maintain a competitive environment for cargo operators, one where capacity is available when required and where operators can develop new, value-added logistics services to meet customer needs.

Streamlined software and systems for Mainland shipments is a key to expanding air-to-air and inter-modal transshipments via HKIA. This includes working with operators and government bodies to enhance the user-friendliness of HKIA's cargo operations, using enhanced customs-clearance technologies and introducing a common e-platform.



SkyCity

The Airport Authority works closely with cargo operators to ensure that HKIA offers the right mix of physical infrastructure. In the short term, the Asia Airfreight Terminal expansion will soon be completed, DHL's Phase 2/3 expansion will be commissioned ahead of schedule in 2007 and both the Airport Freight Forwarding Centre and Tradeport have room to grow. A precious metals depository and a new cargo terminal are now under consideration and, in the longer term, the Airport Authority supports the development of a logistics park near Lantau, which will complement the further growth and development of HKIA.

Build the SkyCity Development

SkyCity will transform HKIA into a comprehensive, service-oriented business, offering a unique airport experience to customers and stakeholders. It is also part of a global trend where businesses, entertainment and residential developments cluster around airports to take advantage of their accessibility and facilities. These airport cities – which deliver economic benefits as much as 75 kilometres from the airports at their core – can be found in Amsterdam, Dallas-Fort Worth, to name just a few examples¹⁶.

SkyCity will transform HKIA into a vibrant, round-the-clock community

SkyCity is designed to be a vibrant, round-the-clock community for passengers, airlines, tourists, local and international businesses and the airport workforce. Its key objectives are to:

- Promote economic growth, trade and tourism in Hong Kong and the region
- Generate air traffic to strengthen HKIA's position as a regional and international aviation hub
- Provide additional facilities and services for passengers



SkyCity Phase 1 features AsiaWorld-Expo (AWE); Terminal 2/SkyPlaza; office developments including the Airport Authority Headquarters (HKIA Tower) and the Airport World Trade Centre; a hotel; SkyPier; and the SkyCity Nine Eagles Golf Course. AWE opened in December 2005, while the remainder of SkyCity Phase 1 will be completed by 2008. Further development is under review.

Perfect the E-airport

Information technology has evolved from a way to save money into an indispensable part of airport management. In recognition of

this fact, the Airport Authority introduced an e-airport strategy to ensure HKIA uses new technologies in the most efficient, reliable and cost-effective manner possible. E-airport is based on six management principles:

- Deploy technology slightly ahead of “just-in-time” to meet business demands
- Ensure there is no single point of failure in the design of critical airport systems
- Develop and share airport system architecture with other airports
- Take ownership of systems and develop core competency without outsourcing
- Adopt best practices in IT services management and systems delivery

- Anticipate and fix problems before they affect services

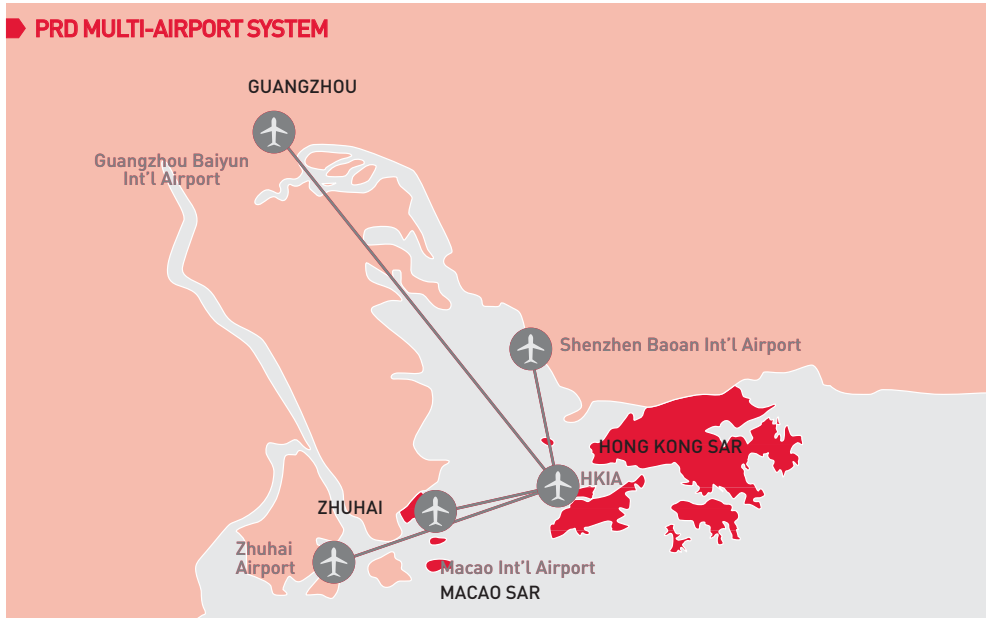
Using these principles, HKIA introduced one of the world’s largest airport wireless LAN networks in 2003 and pioneered the use of radio frequency identification (RFID) baggage management in 2004. HKIA’s future development priorities include:

- Enhancing security with smart card and biometric-based employee and passenger identification systems
- Simplifying business processes with RFID, 2D barcodes, common-use self-service kiosks, e-tickets, and geographical and traveller information systems
- Using standardised hardware and software to strengthen HKIA’s capabilities as an IT infrastructure provider to airlines, ground-handling agents and other tenants

Support the Co-ordinated Development of a PRD Airport System

There are five major civilian airports in the Pearl River Delta. While demand for aviation services is strong, airspace constraints and differing customer requirements and utilisation levels suggest the PRD could benefit from a co-ordinated airport system.

A co-ordinated approach has many potential benefits. It can help to optimise the use of existing facilities and resources, promote economies of scale and allow member airports to tailor their services to specific market segments. In 2006, the Airport Authority established a strategic partnership with Zhuhai Airport, an important step toward better co-ordination among airports in the PRD.



PRD AIRPORTS TRAFFIC CHARACTERISTICS IN 2005

	Hong Kong (HKG)	Guangzhou (CAN)	Shenzhen (SZX)	Macao (MFM)	Zhuhai (ZHU)
Scheduled Airlines (#)	72	29	20	9	3
Destinations (#)					
- Within Mainland	38	81	57	12	11
- International	104	34	16	20	0
Passengers (M)	40.7	23.6	16.3	4.3	0.7
Cargo (M Tonnes)	3.4	0.6	0.5	0.2	0.0
ATM ('000)	264	211	151	45	23

Note: Mainland airport cargo figures include mail

Source: OAG week 12 Dec 2005, The General Administration of Civil Aviation of China (CAAC), ACI, MIA, AAHK estimates

Optimise Supply

Current long-term forecasts estimate that by 2025, HKIA will serve 80 million passengers, handle 8 million tonnes of cargo and 490,000 aircraft movements¹⁷ each year. To meet this demand – and continue to support the Mainland's economic expansion and the four pillars of Hong Kong's economy – the Airport Authority is focusing on optimising supply.

HKIA's original design was based on the 1992 *New Airport Master Plan*. This document estimated that by 2040 HKIA would handle 87 million passengers, 9 million tonnes of cargo and 380,000 aircraft movements, the majority of which would be from origin and destination traffic.

Over the past decade, demand has increased dramatically and the mix of aircraft has changed. As a hub airport, HKIA now serves a significant volume of transfer/transit traffic and a growing number of small aircraft. These changes, coupled with supply constraints, mean HKIA must optimise runway capacity to meet growing demand.

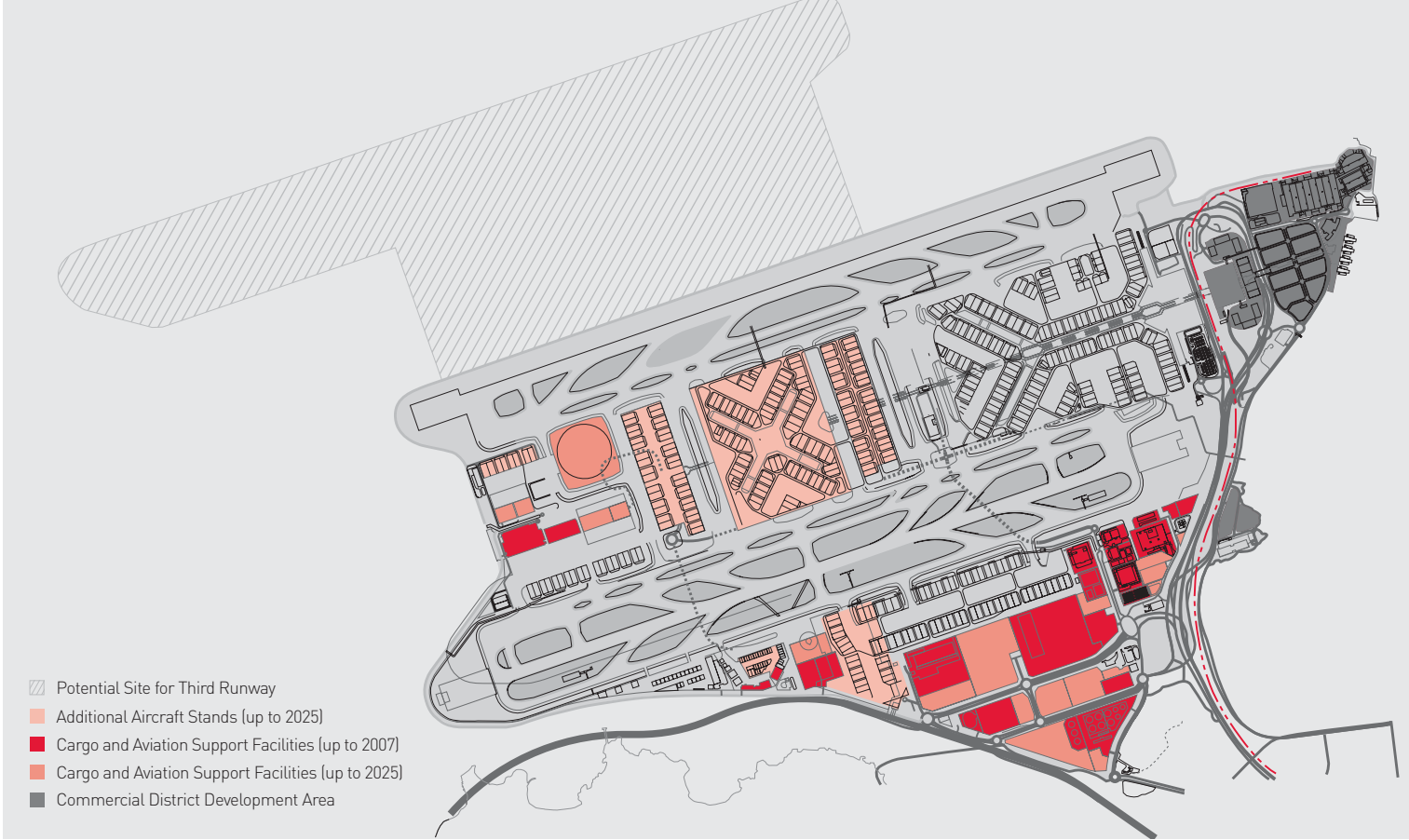
To provide additional capacity, in January 2006 the Airport Authority announced a HK\$4.5 billion investment programme, which includes \$1.5 billion in improvements to the Passenger Terminal Building. The remainder will be invested in the airfield, including the construction of a new satellite concourse for smaller aircraft.

The Airport Authority will work with the Civil Aviation Department to maximise runway capacity, assess the feasibility of a third runway and support the development of a PRD airport system

In the longer term, it is critical to enhance HKIA's runway capacity. The Airport Authority will soon begin engineering and environmental feasibility studies on the construction of a third runway at HKIA. The decision to build a new runway will depend on the results of the feasibility studies. It will also consider stakeholders' views and Hong Kong's long-term competitiveness and role as a leading aviation hub.

At the same time, the Airport Authority will continue to work closely with the Civil Aviation Department to maximise existing runway capacity and support the co-ordinated development of a PRD airport system.

▶ HKIA 2025 POTENTIAL LAND USE



A Process, Not a Destination

HKIA 2025 is not a static conclusion for Hong Kong International Airport. Rather, it is part of a dynamic process that allows the Airport Authority to constantly plan ahead and enhance HKIA's long-term competitiveness.

With the support of the government, key stakeholders, business partners and the community at large, the Airport Authority is confident that HKIA will remain one of the most important gateway hubs of China and continue to contribute to the economic development of Hong Kong, the Pearl River Delta and the Mainland as a whole.



HKIA will continue to contribute to the economic development of Hong Kong, the Pearl River Delta and the Mainland as a whole

NOTES:

¹ Airports Council International, 2005

² *Value-added of Air Transport Industry in 2004*, CSD, Hong Kong Government; Hong Kong's GDP at 2004 current market prices

³ *The Economic & Social Benefits of Air Transport*, The Air Transport Action Group, 2005

⁴ *Heathrow Airport Interim Master Plan*, 2005

⁵ The Pan-PRD region includes Fujian, Jiangxi, Guangxi, Hainan, Hunan, Sichuan, Yunnan, Guizhou and Guangdong provinces; and Hong Kong and Macao

⁶ The Economist Intelligence Unit, 2006

⁷ *Global Tectonics*, Fariborz Ghadar and Erik Peterson, 2005

⁸ World Bank population projection

⁹ World Tourism Organization *Tourism 2020 Vision*

¹⁰ People's Republic of China, *2005 National Economic and Social Development Statistics*, National Bureau of Statistics, 2006

¹¹ *Airbus Global Market Forecast 2004-2023*

¹² People's Republic of China, 11th Five-Year Plan

¹³ Pudong and Hongqiao airports combined

¹⁴ Incheon International Airport Website

¹⁵ A new, two-year New Destination Incentive Arrangement programme will begin on 1 January 2007

¹⁶ "Aerotropolis – The Rising Airport City", presented by Dr John Kasarda at the 16th ACI Pacific Regional Conference, 2006

¹⁷ MVA Hong Kong Limited and GHK (Hong Kong) Ltd

***HKIA 2025* allows the Airport Authority to plan ahead and enhance the airport's long-term competitiveness**

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