



## ISSUE 14

# WHEN INFRASTRUCTURE MEETS DEMANDS

**The global aviation industry is one of the most exciting sectors to be in. Increasing air traffic driven by the expanding and interconnected global trade and the ever-growing number of air travellers has led to the emergence of new air routes, more airlines and state-of-the art aviation infrastructure.**

Competition is growing fiercer in securing a lead position as a global aviation hub. Singapore, largely due to government foresight and initiative, has had a head start in establishing itself as a leading aviation hub. “Everyone wants to be a hub; nobody wants to be the spokes,” said Emeritus Senior Minister Goh Chok Tong at the Singapore Aviation Centennial Evening held on 16 March. “The government invested strategically and built capacity ahead of demand in the development of airport infrastructure,” added Minister Goh.

Infrastructure projects and improvements in the Singapore aviation sector are a testament to the industry’s dynamism. In developing Singapore as a leading aviation hub, it needs to be constantly one step ahead of the competition in terms of the facilities it offers. Building capacity ahead of demand has been a key driver for the success of Changi Airport, and the regulatory framework ensured that post-corporatisation, Changi Airport will have sufficient capacity to handle future increases in traffic.

Following its corporatisation in 2009, the Changi Airport Group (CAG), which operates Changi Airport, unveiled the Changi Airport Growth Initiative to enable the CAG to understand partners’ needs in order to customise solutions for them, including investing in airport infrastructure, runways and other facilities through a collaborative, master-planning process between CAG and the Civil Aviation Authority of Singapore (CAAS). This policy has given impetus to improvements within Changi, attracting new players into the aviation industry. Upgrades and expansions of the existing terminals, as well as plans for new terminals are all in line with the government’s plan to ensure that Singapore keeps its lead as an aviation hub. “Just in demand or slightly ahead of demand,” said Lim Siew Lian, Senior Manager, Airport Planning, CAG of the working philosophy behind all these improvements.

Two years ago, the third major upgrade for Terminal 1 (T1) commenced. Scheduled to be completed this year at an estimated cost of S\$500 million, the programme is expected to further enhance passenger experience in T1. Aside from aesthetic considerations, the

upgrade is expected to improve passenger flow at key areas – the arrival hall as well as kerbside, check-in hall and transit mall of the departure area. Processing capacity at the departure check-in hall will also be improved, with older sections of the finger piers expanded and seating in the gate rooms enhanced. Plans are also afoot for the refurbishment of the Budget Terminal (BT) next year in response to the growing number of low-cost carriers and, by extension, passengers.

## **LOOKING AT LOGISTICS**

Aside from passenger facilitation, a key consideration for an efficient aviation hub is the faster turnaround of goods. Changi Airport is one of the contributing factors for Singapore's success as a leading global logistics hub in Asia. The World Bank Logistics Performance Index 2010 study, which ranks 155 countries on logistics performance, placed Singapore top in Asia and second globally after Germany.

The availability and quality of air cargo infrastructure at Changi forms a major part of this ecosystem. Today, there is a vibrant community of third party logistics service providers (3PLs), integrated express companies and cargo agents doing business at the airport, specifically, Changi Airfreight Centre and Airport Logistics Park of Singapore.

"Singapore's value proposition as a global aviation and logistics hub, supported by customs efficiency and quality logistics infrastructure, has attracted many global companies to establish regional distribution centres here for finished goods inventory, spare parts and components, to better serve their growing Asia-Pacific clientele," said Albert Lim, Vice President, Cargo & Logistics Development, CAG. These regional distribution activities, led by the indigenous export and import nature of trade in Singapore are key cargo demand drivers for Singapore's aviation ecosystem.

**Changi Airfreight Centre (CAC)** An integrated 24-hour service centre for airfreight, the 47-hectare CAC is operated as a Free Trade Zone (FTZ) with round-the-clock cargo services. Companies within the FTZ can move, consolidate, store, breakdown and repack cargo with the least documentation or custom duties. This makes it easier for companies to facilitate the movement of their goods, which can be delivered within four hours after unloading from lanes. Even more urgent shipments can be handled within the hour. This process has greatly improved the growth of transshipment cargo at Changi – and is also projected to enhance long-term airfreight growth.

**Airport Logistics Park of Singapore (ALPS)** In addition to the CAC, the ALPS, which is developed by JTC, provides an advantage for 3PLs because products coming into Singapore can be modified and flown out to any of the world's markets without leaving the FTZ. This means extensive time and cost savings for companies. Because ALPS is part of the FTZ, it

has its own customs checkpoint for the exclusive use of tenants, allowing for a quick turnaround for high-tech, high-value products.

**Coolport@Changi** Serving niche market demands, Coolport@Changi is the country's first dedicated on-airport facility to handle perishable cargo within the FTZ. To cope with the temperature demands of the perishables that passes through this area, the facility has multitiered zones with different temperatures. Coolport@Changi will also have a dedicated system to handle biomedical cargo, a boon for such companies not only in Singapore, but also in the region. The facility is expected to open up trade routes for the country and expand Singapore's biomedical industry. Spanning 8,000-square metres, Coolport@Changi has the capacity to expand to 14,000-square metres should the need arise. "Our vision for Coolport@Changi is to become the preferred transshipment hub for those products that require a secure cool chain logistics process," said Yacoob Piperdi, Senior Vice President, Cargo Services, SATS Ltd, which manages the facility.

Singapore FreePort Rounding out the services of Singapore's air cargo sector, this specialised facility was opened in 2010, attracting key players in the arts and collectibles market. The facility adds momentum to two major aspects of Singapore's development strategy: As a global arts hub and as a centre for wealth management. The FreePort functions as an FTZ, with its own customs facility to makes it easier for art collectors and investors to store high-value art and collectibles. The high-security facility has the capacity to store at least \$3 billion worth of assets and could attract new wealth management services to the region. Right now, the main tenant is international auction house Christie's, which has taken up over 40 per cent of the space. To assure art collectors and buyers that their property is in the best of hands, the low-rise three-storey FreePort building has an underground facility, strong rooms, and huge vaults for storage. It also has private viewing rooms and exhibition spaces, which can be accessed by appointment. Security is tight with a high concrete wall surrounding the facility as well as armed guards and state-of-the-art security systems. In an interview with The Straits Times, Dr Beh Swan Gin, managing director, Singapore Economic Development Board, said, "[The FreePort] complements Singapore's high connectivity to the world and our reputation as a high-trust location." The completed Phase One of the FreePort offers 269,067-square feet of storage space, while the projected Phase Two will double that area.

**Air Cargo Express (ACE) Hub** Strategically located within the Changi FTZ, the 8,000square feet ACE Hub is a specialised cargo and logistics centre designed for air express integrators. The first of such air cargo facility in the region, the ACE Hub will have direct airside access to facilitate the unrestricted flow of cargo to and from the aircraft, enabling shippers to shorten the processing time for time-sensitive cargo to achieve greater efficiency and speed. The ability to provide fast turnaround is extremely vital for air express companies. Early this year, FedEx announced that it will house its FedEx regional hub at the ACE Hub. With construction already underway, the FedEx Singapore Regional Hub will combine its delivery, pickup and

airport operations under one roof. The FedEx Singapore Regional Hub will boast a five-belt sort system with capacity to sort up to 9,000 packages per hour and house over 250 delivery vans. It will also include airside infrastructure such as two new aircraft parking bays, as well as special on-site facilitation by the Immigration and Checkpoints Authority and Singapore Customs for efficient cargo clearance. “The ACE Hub will significantly enhance Changi’s express cargo handling capabilities and reinforce our leading position as a key cargo hub in Asia-Pacific.” said Lim.

### **BOOSTING MRO**

Spanning 300 hectares, Seletar Aerospace Park (SAP) is envisioned to host an integrated cluster of four key activities: Maintenance, Repair and Overhaul (MRO) of aircraft and components, manufacturing and assembly of aircraft engine and components, business and general aviation and training and research & development. Around 140 hectares is dedicated to the aerospace industry, while the airport will occupy the rest.

Expected to contribute some S\$3.3 billion annually in value add (one per cent of GDP) and employ some 10,000 people when completed in 2018, SAP is already host to a number of MRO companies. Major players such as Rolls-Royce, Eurocopter and MAJ Aviation have already set up shop, with more to follow.

“JTC, as the masterplanner and developer of the SAP, aims to provide a unique infrastructure at Seletar that will enable us to attract a wide range of activities and bring the aerospace industry in Singapore to a new level. The setting up of substantial operations by companies such as Rolls-Royce, ST Aerospace, Eurocopter, Jet Aviation and Fokker is excellent testimony of SAP’s value,” said Manohar Khiatani, Chief Executive Officer, JTC.

Also in the pipeline at SAP are projects designed to support companies located in the park. The Business Aviation Centre is a seven-storey light industrial building that will provide business aviation companies support services such as fixed-based operation, supply of aircraft parts, repair cycle management services, chartering and freight forwarding, fleet management and aircraft sales/leasing. The Components Manufacturing and MRO Facility consists of seven ready-built standard factories for aerospace and aerospace supporting companies that need space to set up shop. The General Aviation Centre (GAC) is a shared facility for line maintenance and parking of smaller aircrafts in the general aviation business. The GAC will help general aviation companies save on investing in fixed infrastructure and hence, enjoy long-term and substantial operational cost savings.

### **LOOKING AHEAD**

The true test of any project is its ability to fulfil its role, as well as evolve to keep pace with future projections. From passenger facilitation, repair and maintenance to logistics and cargo handling – even to servicing niche markets – the developments mentioned above certainly

point to a mindset in which projects are implemented, not just to address present needs, but to make sure that the facilities are integrated as one working ecosystem well into the future.