

Business & Operations Review



MORE THAN
100
Airlines connect
Changi to the World



MORE THAN
220 Cities in about
60 countries
worldwide



ABOUT
6,200
Weekly flights



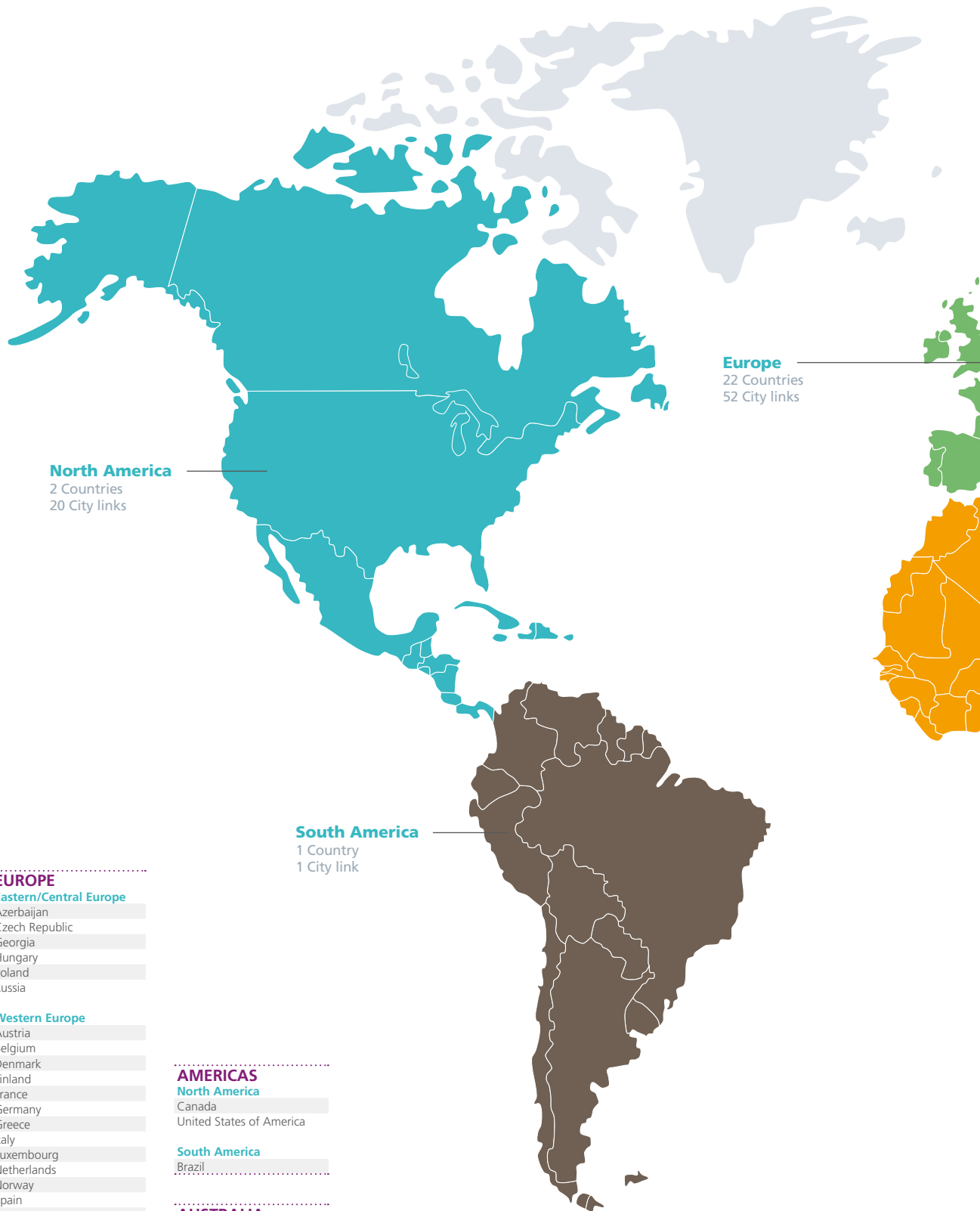


A RECORD
48,000,000
Passenger movements



Global Connectivity

Country & City Links (as of 31 March 2012)



North America
2 Countries
20 City links

Europe
22 Countries
52 City links

South America
1 Country
1 City link

AFRICA

Eastern Africa

Ethiopia
Kenya
Madagascar
Mauritius

North Africa

Egypt
Morocco

Southern Africa

South Africa

ASIA

Middle East

Bahrain
Oman
Qatar
Saudi Arabia
Syria
United Arab Emirates

North East Asia

China
Hong Kong
Japan
South Korea
Macau
Taiwan

South Asia

Bangladesh
India
Maldives
Nepal
Sri Lanka

South East Asia

Brunei Darussalam
Cambodia
Indonesia
Laos
Malaysia
Myanmar
Philippines
Thailand
Timor Leste
Vietnam

EUROPE

Eastern/Central Europe

Azerbaijan
Czech Republic
Georgia
Hungary
Poland
Russia

Western Europe

Austria
Belgium
Denmark
Finland
France
Germany
Greece
Italy
Luxembourg
Netherlands
Norway
Spain
Sweden
Switzerland
Turkey
United Kingdom

AMERICAS

North America

Canada
United States of America

South America

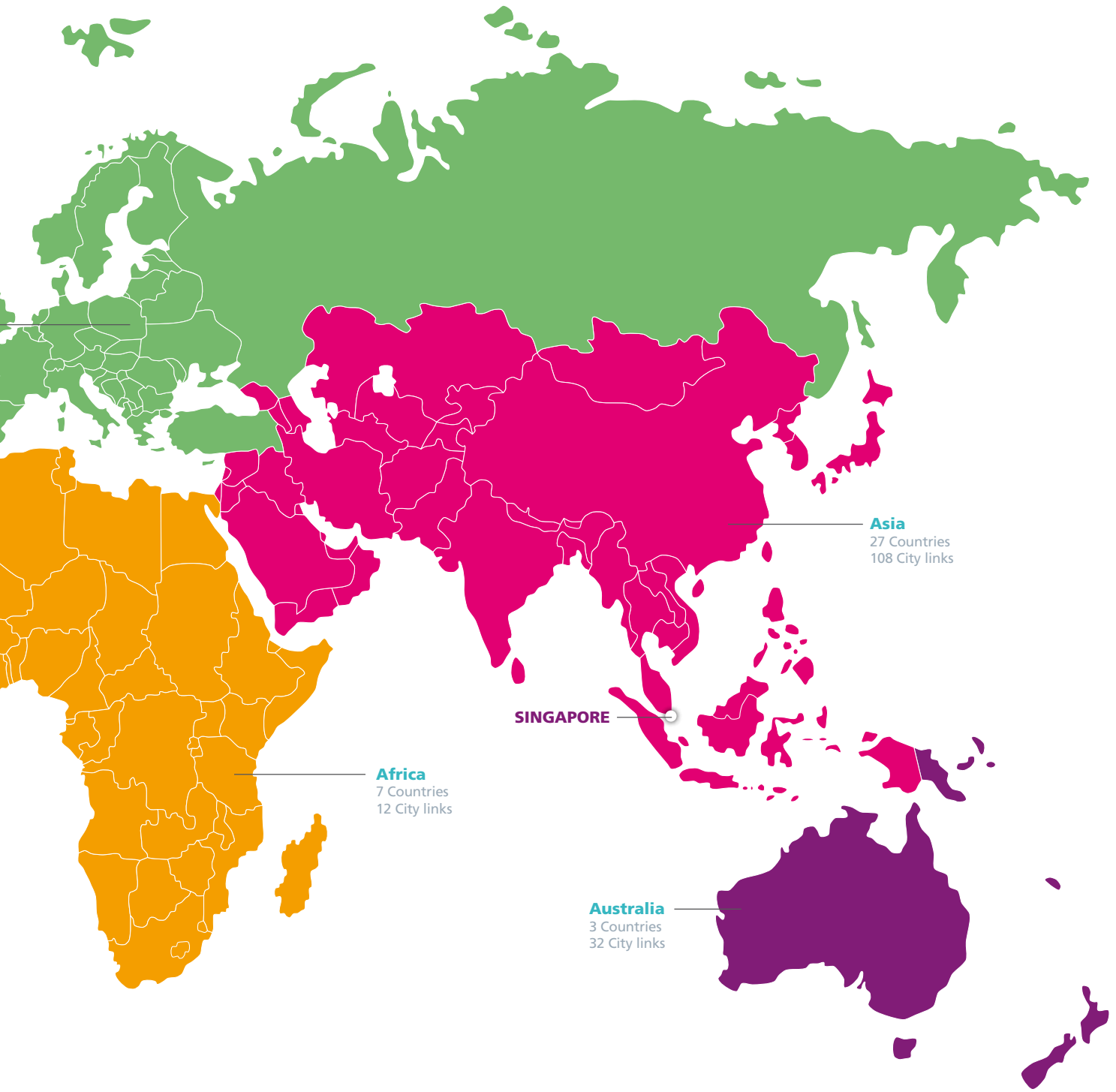
Brazil

AUSTRALIA

Australia
New Zealand
Papua New Guinea

Changi Airport is the seventh busiest international airport in the world. As at 31 March 2012, Changi serves more than 100 airlines operating some 6,200 weekly scheduled flights connecting Singapore to over

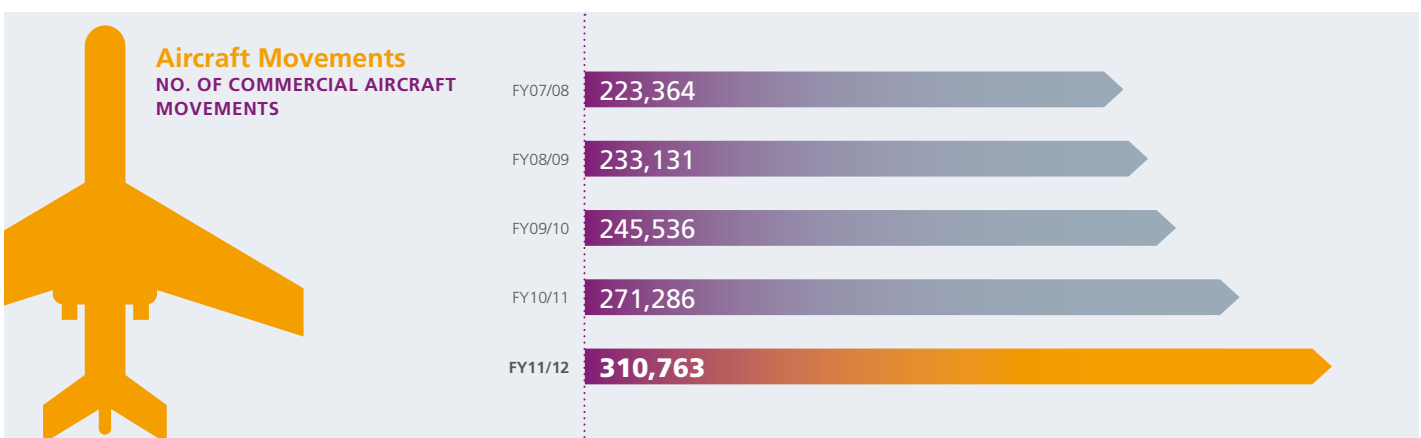
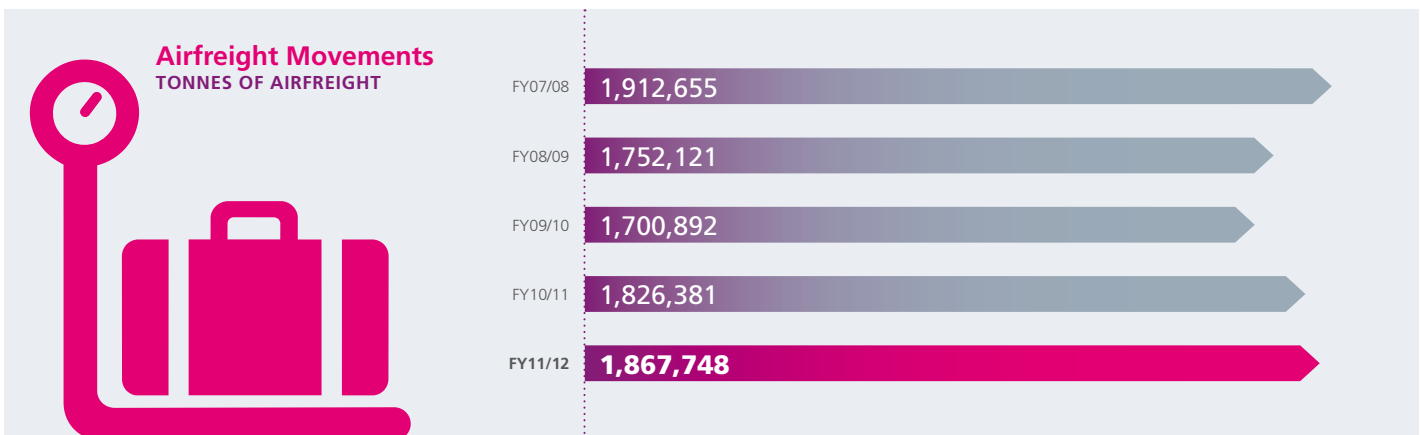
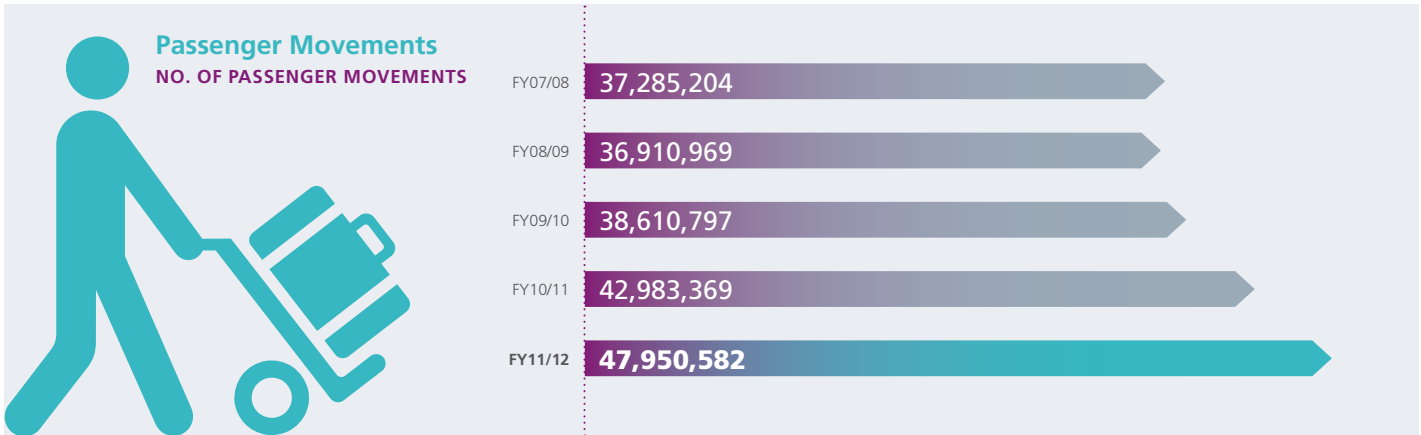
220* cities in about 60 countries and territories worldwide.



* Including codeshares

Air Traffic Statistics

– By year



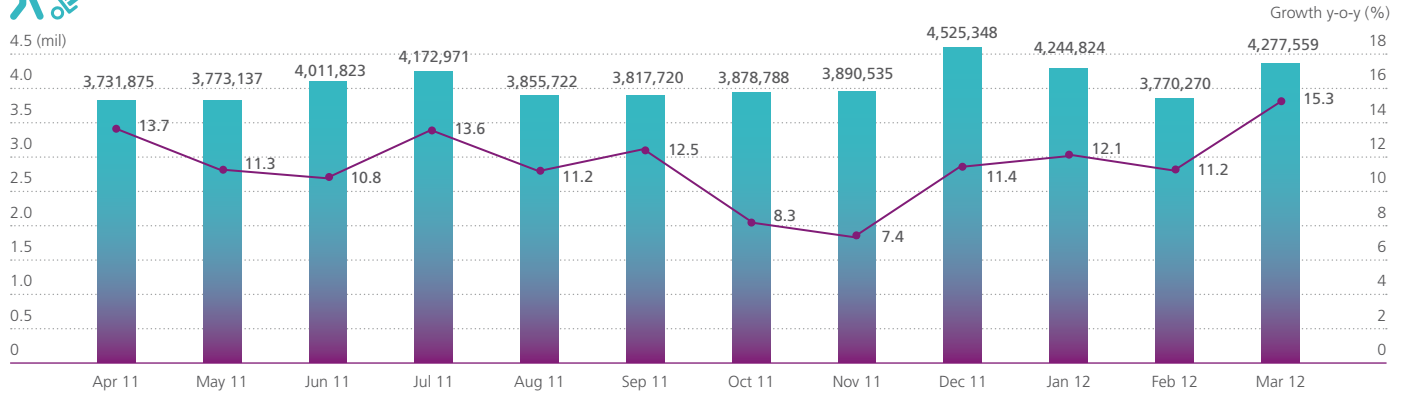
Air Traffic Statistics

- By month



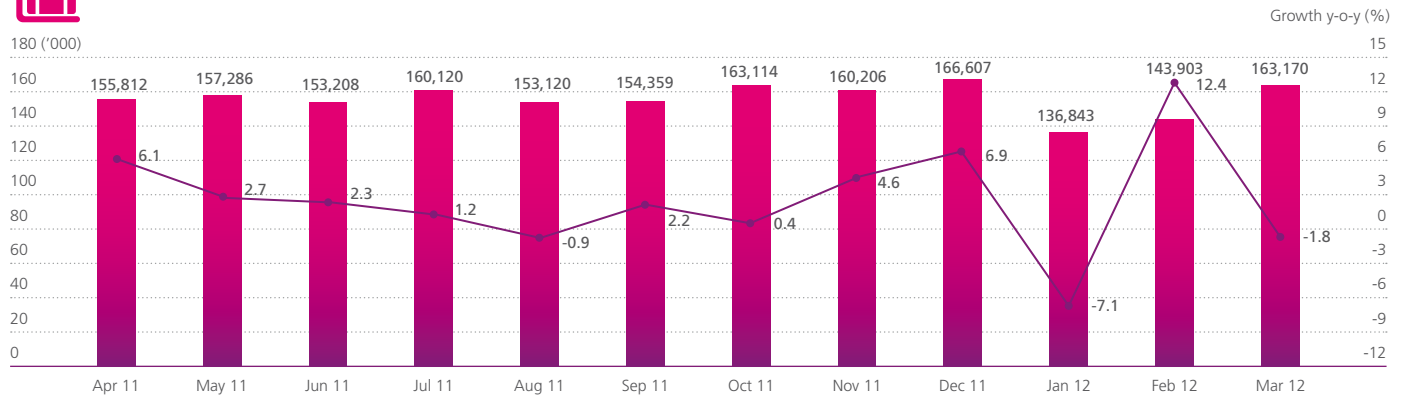
Passenger Movements

NO. OF PASSENGER MOVEMENTS



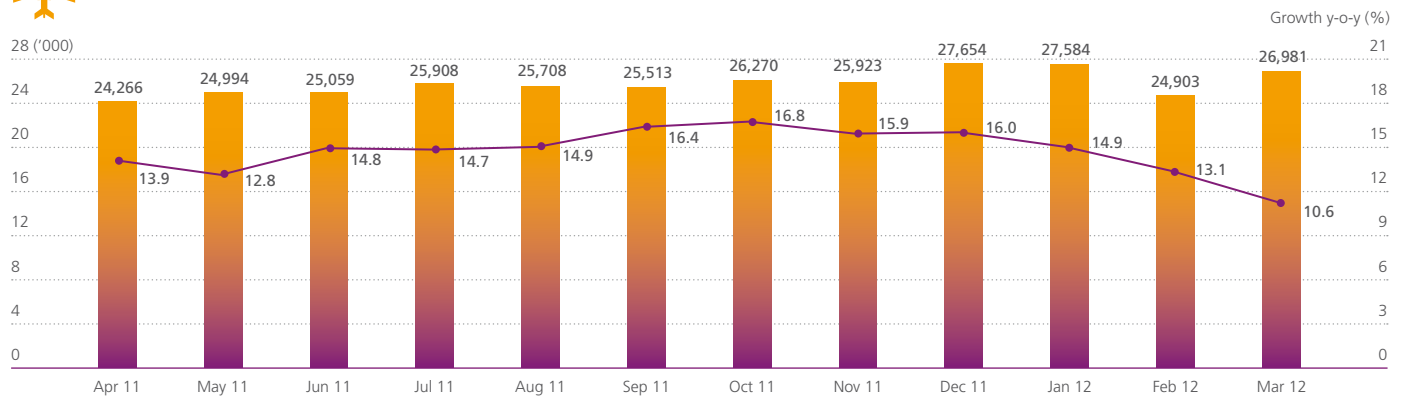
Airfreight Movements

TONNES OF AIRFREIGHT



Aircraft Movements

NO. OF COMMERCIAL AIRCRAFT MOVEMENTS



An Award-Winning Experience

Providing passengers and visitors with the best airport experience continues to be a key focus for Changi Airport Group (CAG). Every interaction at the airport is defined by the Changi Service DNA – personalised, stress-free and positively surprising. Combined with world-class airport facilities, efficient operations and excellent customer service, this is the Changi Experience that every passenger and visitor has come to associate with Changi Airport.



Changi Experience Agents are deployed airport-wide to assist passengers who require assistance.



Changi's new one-stop Changi Contact Centre manages enquiries and feedback across all communication platforms.

A testament to its efforts, Changi Airport won a total of 26 Best Airport awards during the year. These included Best Airport in the World by Business Traveller (UK) for the 24th consecutive year, Top Worldwide Airport by Wanderlust for the 10th year and Best Airport in Asia Pacific by DestinAsian for the seventh year running. Changi is the world's most-awarded airport, with its 400th Best Airport award recently conferred by Business Traveller (Middle East) in April 2012.

MAINTAINING OPERATIONAL EXCELLENCE

The upgrading of Terminal 1 neared its completion during the year. One of the major challenges that CAG faced while major renovation works were in progress was to carry out the upgrading even as Terminal 1 remained operational. This meant that works had to be done in phases to keep inconveniences to a minimum. For

example, all noisy works took place during off-peak hours or during the night. Where parts of the terminal had to be closed, signages were installed to guide and inform passengers.

At times, hundreds of workers could be found onsite, toiling round the clock to ensure that the upgrading project could progress smoothly and with little fuss. It is to the credit of the meticulous planning and dedication of CAG staff that the works could be done without compromising Changi Airport's service standards and passenger comfort.

A BETTER CHANGI EXPERIENCE

Changi Airport was selected as one of Singapore's four Customer Centric Initiatives (CCI) icons in 2010. With the objective of putting passenger needs at the core of Changi's operations, service delivery at the airport is now underpinned by the values of the Changi Service DNA.

This has helped CAG to better align the service standards of all service providers in delivering the Changi Experience to passengers and visitors.

This year, CAG raised the bar on service at Changi Airport with the introduction of the Changi Experience Agents and the Changi Contact Centre.

Changi Experience Agents

Since March 2011, a group of roving customer service officers has been walking the grounds in Changi Airport and providing assistance to passengers and visitors. Known as Changi Experience Agents (CEAs), they are deployed airport-wide and assist passengers on a myriad of requests ranging from special needs to locating missing luggage.

Complementing the existing customer service officers who are stationed at the information counters, the more than 90 CEAs at Changi Airport collectively



Terminal 1 Upgrading - Even as impressive features like the lantern feature wall were installed, dedicated Changi staff maintained the terminal's operational efficiency.

speak a total of more than 20 languages and dialects such as Mandarin, Hindi, Japanese, Tagalog, Thai and French, to serve the broad range of nationalities who pass through Changi Airport. The mobility of the CEAs enhances their responsiveness to customers who require assistance. In addition, the CEAs are equipped with computer tablets with which they can retrieve information, such as the latest flight updates, store locations, check-in rows etc., to help passengers with their specific requests.

The CEAs serve an average of 100,000 passengers every month. Since their appearance at Changi, CAG has received more than 700 compliments from passengers who have been delighted by the extra touch in the service they received.

Changi Contact Centre

In August 2011, Changi Airport launched its one-stop contact centre to answer

enquiries from passengers and the public and to better manage and respond to feedback received. The Changi Contact Centre (CCC) operates round-the-clock and is staffed by dedicated personnel. It replaced the old public enquiry service which was handled by the information counters at each of the four terminals. With the CCC, customers now need to call only one number (+65 6595 6868).

With a new state-of-the-art customer relationship management system, all feedback and enquiries received across different communications platforms – phone calls, website, feedback kiosks and physical forms – are now easily consolidated. This allows interaction with each customer to be registered for future reference. For instance, the CCC staff would recognise if a caller had dialled in previously, and would have knowledge of past feedback from or correspondence with the caller.

The introduction of the CCC has also made possible a more streamlined approach to the management of feedback and better quality of responses provided. This is especially so for cases involving multiple airport agencies. During the year, the CCC handled an average of 450 calls a day, with more than 93% of these answered within 15 seconds.

Swift Feedback and Inspection

The Service Workforce Instant Feedback Transformation System (SWIFT) is a successful technology initiative implemented by CAG to improve feedback management and raise performance standards of service personnel at Changi Airport. It comprises two components – the Instant Feedback System (IFS) and e-Inspection.

The IFS, now implemented at key touchpoints in Terminal 3 such as check-in counters and washrooms, allows CAG to

An Award-Winning Experience



CAG CEO Lee Seow Hiang receives the prestigious Singapore Service Excellence Medallion from Singapore's President Tony Tan Keng Yam.



Always warm service with a smile - this has enabled Changi Airport to score highly in the Customer Satisfaction Index of Singapore.

solicit real-time feedback from customers and provide corrective action in an efficient way. Ratings provided directly by passengers and airport users through a touch-screen device after a service experience are tabulated by the system, enabling supervisors to monitor the performance of their frontline staff.

Using the intelligence provided by the system, good performers can be commended, while those needing improvement can be counselled or trained, elevating the standard of customer service as a whole. Since the introduction of the IFS in 2011, the average number of feedback received per month has been about 354,000, compared to an average of 200 feedback received before SWIFT was implemented.

e-Inspection, the second component of SWIFT, enables timely responses to service and facility faults within Changi's

terminal buildings via real-time inspections by duty personnel, enhancing the productivity of the workforce. Faults are reported through smartphones to the relevant personnel, triggering corrective action within a pre-defined turnaround time. Since its introduction, facility faults have been reduced by almost 30% due to

more frequent checks and feedback related to cleanliness has been reduced by 40%. Manual forms and checklists have also been digitised

for use on smartphones, facilitating the recording and archival of real data on-site during inspections.

The e-Inspection system is presently used to track and monitor estate management and maintenance activities at Changi Airport. Its use will be expanded to other facilities such as engineering and commercial systems across all the terminals by end 2012.

“Service excellence continues to be a hallmark of what Changi Airport epitomises.”

SERVICE EXCELLENCE AT CHANGI

Service excellence continues to be a hallmark of what Changi Airport epitomises. For the 28,000-strong airport community, delivering the Changi Experience has been an important ingredient of Changi's continued success over the years.

The Power of One

On 28 November 2011, CAG was conferred the prestigious Singapore Service Excellence Medallion. Singapore's President Tony Tan Keng Yam presented the inaugural award to CAG CEO Lee Seow Hiang. The award, administered by the Institute of Service Excellence of Singapore Management University (ISES), recognises the achievements of organisations and individuals in inspiring and sustaining a culture of service excellence. CAG was commended for its



Award winners at the Annual Airport Celebration 2012 with Mr Lui Tuck Yew, Minister for Transport and Second Minister for Foreign Affairs.

relentless pursuit of service excellence and its consistent demonstration of supreme levels of customer satisfaction, employee satisfaction and business excellence.

Higher Customer Service Score

In the 2011 Customer Satisfaction Index of Singapore released by the ISES, Changi Airport received a 78.6 customer satisfaction score, an increase of 4.9 points from the previous year, beating the transportation and logistics industry average of 70. Changi Airport was also ranked first in the transportation and logistics category, a testament to the continuous efforts to improve the passenger and visitor experience at Changi.

Airport Service Awards

As part of its efforts to motivate and reward outstanding members of the

Changi community, CAG hosts an annual awards ceremony to acknowledge and recognise exceptional airport staff who have shown exemplary acts of service.

In 2011/12, for the first time, the service awards were presented to support and maintenance staff from Changi Airport's partner organisations and agencies in addition to frontline personnel. A total of 25 Changi Airport Service Awards were presented to individuals and teams in four categories – Changi Airport Service Personality of the Year, Outstanding Service Providers, Outstanding Service Teams and the inaugural Outstanding Custodial Staff.

The quality service delivered by these award winners and the rest of the airport community ensures that the tens of millions of passengers and visitors passing through Changi Airport every year continue to enjoy the excellent and positively surprising Changi Experience.

“

For Changi Airport, service is not an add-on activity. It is at the core of who we are and everything we do. CAG is first and foremost a service company. Having this clarity helps us build a strong service culture because everyone knows it is our DNA, and our raison d'être.

Delivering service excellence is also about a firm belief in the Power of One – one individual rising to the occasion and making a difference for another. At CAG, we talk about the Changi Experience as it focuses attention on the individual. It forces one to think 'What can I do for each customer?' 'How can I make their specific experience of the airport a memorable one?'

So when CAG was corporatised, we decided to enshrine this focus on the 'individual' into the new logo. We deliberately positioned the globe above the last letter of Changi to symbolise a huge CAPITAL 'I'. 'I' stands for the Individual – a reminder to us that despite the more than 40 million passengers we serve each year at Changi, every individual counts. Every compliment and every complaint matters to us.

The letter 'I' also symbolises the many individuals who serve at Changi. Whenever one of them takes the initiative and reaches out to a passenger or visitor, a moment of magic is created. That is the Changi Experience.

”

LEE SEOW HIANG

Chief Executive Officer

on CAG being conferred the prestigious Singapore Service Excellence Medallion.

An Award-Winning Experience



A giant topiary of the Merlion greeted passengers at Terminal 3 during the 2011 year-end holidays.

NEVER A DULL MOMENT AT CHANGI

The charm and attraction of Changi Airport is due not only to state-of-the-art airport facilities and efficient operations, but to regular lively events and activities as well.

Travelling the World

Befitting its status as one of the top airports globally, Changi Airport showcased the world's greatest landmarks during the Christmas festive period last December. Giant topiaries of icons, such as the Eiffel Tower, Sydney Opera House, Temple of Heaven and Singapore's very own Merlion were on display at the public and transit areas of Terminals 2 and 3, delighting passengers and visitors.

The biggest topiary display at the Terminal 3 Departure Hall, where the Merlion stood tall, was also home to miniature figurines of the Statue of Liberty, Taj Mahal, the Pyramids of Egypt

and other famous world landmarks. Special photo kiosks located on-site provided visitors with the opportunity to capture snapshots of their memorable experiences at Changi.

Angry Birds, the popular smartphone application that took the world by storm, also made an appearance at Changi Airport last Christmas. Adding to the air of festivities at the airport, adorable Angry Birds characters could be seen at the topiary sites, riding in hot air balloons and blimps decorated with blinking lights.

Airport-wide, Changi was also decorated with beautiful displays of Christmas trees and flowers, featuring festive elements such as poinsettias, reindeer, sleighs, baubles and gifts. Adding a touch of magic and cheer to the decorations were shimmery festive ornaments and decorations donning the trees along Airport Boulevard, the main road leading to Changi Airport. Passengers



Celebrating multiculturalism at Changi with horticultural displays during festive seasons.



Understanding a facet of Singapore's heritage through the Porcelain of Asia exhibition at Terminal 2.

and visitors were also greeted with their favourite Christmas carols by roving carollers, celebrating the holiday season with their songs.

Celebrating Multiculturalism and Heritage

Throughout the year, Changi continued to surprise with colourful sights of local festivals such as Hari Raya Aidilfitri and Deepavali. Themed floral displays adorned Changi's terminals during these festive periods, which proved to be very popular with photo enthusiasts.

Peranakan aficionados enjoyed the year-long 'Porcelain of Asia' exhibition located at Terminal 2's Departure Transit Mall. Jointly organised by the Asian Civilisations Museum and the Peranakan Museum, in partnership with CAG, the interactive display, including giant exhibits of the *kamcheng* (porcelain dining ware) and *kendi* (ancient drinking vessel),

28,000

dedicated team members serve passengers at Changi every day

provides passengers with interesting insights into the way of life and rich heritage of this unique local culture.

Meanwhile, history buffs were delighted with the 'Transforming Landscapes, Improving Lives' exhibition at Terminal 1's Departure Transit Mall. Tracing 50 years of Singapore's economic evolution, visitors to the exhibition learned how Singapore's physical, economic and social landscapes were shaped by key economic developments. On display for the first time were authentic versions of the first commercial and industrial products manufactured in Singapore such as an original Seiko stopwatch produced in 1976 and the first semiconductor wafer fabricated by ST Microelectronics.

CONTINUOUS AIRPORT ENHANCEMENTS

Various enhancements were introduced in Changi Airport throughout the year. In Terminal 1, dnata opened a new premium check-in lounge in February 2012. With direct access to the immigration area, airline passengers now enjoy exclusivity, enhanced comfort and increased convenience when travelling through the terminal.

To serve business travellers and tech-savvy passengers better, the iConnect lounge was opened in Terminal 2's Departure Transit Mall. The lounge enables users to check latest news updates and access emails in privacy and comfort while in transit. It comes equipped with complimentary use of Bloomberg terminals, internet kiosks and laptop access points.

With the steady growth of passenger traffic at Changi Airport, CAG continues to optimise usage and boost efficiency of the airport terminal buildings. The move of SriLankan Airlines from Terminal 1 to Terminal 3 in October 2011 completed the relocation of airlines that also involved Garuda Indonesia, Saudi Arabian Airlines and Vietnam Airlines. With this move, CAG



Personalised services await passengers at the JetQuay CIP Terminal.

has greater flexibility to manage on-the-ground operations in Terminal 1 and continue to provide passengers with a first-class airport experience.

The JetQuay CIP (Commercially Important Persons) Terminal renewed its tenancy for another three years starting from August 2011. JetQuay provides a range of personalised services including limousine transfers from private jets to the terminal buildings, buggy services to gate holdrooms, baggage pick-up and delivery and even personal shoppers. JetQuay served more than 77,000 passengers in 2011/12 and expects usage rates to continue to be strong.

NEW AND IMPROVED AIRPORT PARTNERSHIPS

To ensure greater coordination of airport operations across different airport agencies, CAG introduced the new Airport Operations Centre (AOC) in May 2011. The AOC functions as an operational nerve

centre for four airport agencies – CAG, Airport Police Division, SATS and Certis CISCO. It will be expanded to include more agencies in the future. The centre's information technology infrastructure supports the sharing of critical 'real-time' updates, enabling collaborative decision-making and tighter inter-agency coordination, which in turn results in better operational efficiency.

In addition to the two incumbent ground handlers – dnata and SATS – at Changi Airport, CAG awarded a third licence to Aircraft Service International Group (ASIG) in June 2011 to increase competition in the provision of ground handling services. ASIG has a good track record of serving both full-service and low-cost carriers in Europe and North America. Awarded a 10-year licence for ground handling operations at Changi Airport, ASIG will provide airlines with more choices in terms of service offerings and pricing.

World-Class Shopping and Dining

One of Changi Airport Group's (CAG) core priorities is to grow Changi Airport's retail business and its non-aeronautical revenues, as a successful commercial strategy enables it to drive the growth of the air hub. A strong revenue stream from non-aeronautical sources helps CAG to keep aeronautical charges for airlines and airport users competitive, thus strengthening Changi's attractiveness as an air hub. To grow concession sales at Changi, CAG adopts a dynamic retail strategy, executed with touches of innovation which includes a strong and relevant retail mix, effective promotions that stimulate sales, and strong support to tenants, to achieve growth together.



The revamped Terminal 1 offers a wide range of dining options in the public areas ranging from popular local brands like Astons Specialties, Paradise Inn and Ruyi, to international fast food chains like KFC and Pizza Hut.

During the year, CAG enjoyed unprecedented success on the retail front, raising concession sales at Changi Airport by a solid 19% to a record S\$1.75 billion – outstripping the already robust 11.6% growth seen in passenger traffic for the same period. This places Changi firmly among the top four airports in the world in terms of annual retail sales turnover. On top of the boost given by the strong traffic growth, Changi Airport's robust retail performance in 2011/12 could be attributed to various efforts undertaken by CAG to grow sales, including the expansion of the retail footprint and offerings at Changi, and an attractive retail proposition which has been effective in spurring higher spending among shoppers.

RETAIL FOOTPRINT EXPANSION

Thinking ahead about what customers need and want, and ensuring that Changi Airport's offerings not only meet their

needs, but remain vibrant, surpassing their expectations – this is key to delivering a first class airport shopping experience. In planning the retail mix in Changi's terminals, CAG makes it a point to ensure that there are offerings that cater to passengers of different profiles. Hence, at every terminal, there is a diverse range of retail stores and dining outlets spanning a spectrum of different price points, such that there is always something for everyone.

With the completion of the upgrading works at Terminal 1 and the revamp of Terminal 3's public areas, CAG expanded the retail footprint at Changi Airport by 5,700 square metres to over 74,000 square metres. As a result of these expansion works, the number of outlets at Terminal 1 increased by about 25%, while the number of outlets in Terminal 3's public areas went up by about 60%. These developments have given Changi's retail business a boost

as it has allowed CAG to widen, refresh and refine the repertoire of brands and concepts being offered to customers.

Post-upgrading of Terminal 1, there are over 70 retail shops and more than 30 F&B outlets in the terminal. New retail brands that have opened in the Departure Transit Mall in 2011/12 include luxury brands Marc by Marc Jacobs, Longchamp, Alfred Dunhill, Salvatore Ferragamo and a good spread of quality brands in other categories including Godiva, Bata, Tumi, So Chocolate and Relay.

Dining at Terminal 1 has gotten more exciting too. New dining outlets at the Departure Transit Mall include Bakerzin, 1983 Taste of Nanyang, La Cave Wine Bar, Peach Garden Noodle House and Texas Chicken. Many of these eateries offer a pleasant dining experience with great views of the airfield, ideal for plane spotters who want to relax and observe the hustle and bustle of airside activities



Without stepping out of the country, diners can now enjoy the best *tonkatsu* from the Land of the Rising Sun at Terminal 1's Saboten – one of the biggest *tonkatsu* chains in Japan.



So Chocolate, an innovative chocolate boutique at Terminal 1's Departure Transit Mall, offers a wide range of popular classics such as Toblerone and Hershey's, along with premium brands like Godiva, Neuhaus and more.



Fotopro at Terminal 1's Departure Transit Mall is a one-stop digital imaging and solutions centre.

ABOUT
130 F&B outlets
> 360 retail outlets

World-Class Shopping and Dining



The upgrading works have resulted in an enhanced shopping experience at Terminal 1, with better way-finding and passenger flow.

over a meal or just a cup of coffee.

Indeed, beyond just an increase in the number of stores, the shopping experience at Terminal 1 has been significantly enhanced with the upgrading project. Thoughtful consideration went into the redesign of the Departure Transit Mall, resulting in an enhanced retail environment which has benefited concessions and shoppers alike. For instance, there is now better way-finding and passenger flow, providing greater visibility for brands. Effective category clustering and an improved ambience – with abundant natural light, high ceilings, great views of the airside and luscious landscaping – contribute to a more enjoyable shopping experience.

“The last phase of the revamp at Terminal 3’s Level 3 will be completed in the second half of 2012 with the introduction of two retail anchors spanning over 10,000 square feet each.”

The enhancements are not limited to the Departure Transit Mall. As a result of the upgrading works, more restaurants are also now available in the public areas, including popular favourites like Paradise Inn, Astons Specialties, Pizza Hut and KFC

as well as new and unique concepts like Saboten and Ruyi.

Over at the other terminals, CAG has also continued to bring in exciting new brands to refresh its retail offerings. They include Vine & Leaf (wine & cigar concept store),

Shanghai Tang boutique (luxury fashion) and Tai Hing Restaurant, all in Terminal 2. In Terminal 3, new stores include DFS Fashion Avenue (luxury fashion), Tommy Hilfiger (luxury fashion), M&M’s World (chocolate and candies), as well as Hong



A slew of luxury brands arrived at Terminal 1’s Departure Transit Mall during the year, including Salvatore Ferragamo, Marc by Marc Jacobs, Longchamp and Alfred Dunhill.

Kong Sheng Kee Dessert, and Kaffe and Toast (both ‘quick bites’ kiosks).

At Terminal 3, the revamp of the retail space in the public areas was completed during the year, increasing the total concession space by 20%. With the revamp, more than 20 new shops have been added to Terminal 3’s Basement 2. Unique brands that have arrived since the end of 2011 include Singkids (kids’ indoor playground from Japan, the first in Southeast Asia), SPELL (a collaboration with Singapore Polytechnic) and Ramen Champion.

The last phase of the revamp at Terminal 3’s Level 3 will be completed in the second half of 2012 with the introduction of two retail anchors spanning over 10,000 square feet each. The Planet Traveller, the world’s largest lifestyle travel store, opened its doors in March 2012. It carries a wide variety of travel essentials such as maps, books,



26-year old Australian Jessica Down won the grand prize of S\$1 million at the 'Be a Changi Millionaire' Grand Draw in February.

gadgets and suitcases, in 16 distinct merchandising zones including travel gear, travel accessories & appliances, junior travel and winter wear. The other anchor is Electronics Hub @ Terminal 3, a full-fledged electronics store offering a wide range of electronics. Since the beginning of 2012, new dining outlets have also commenced operations progressively at Level 3, including Gurney Drive, Thai Express, Itacho Sushi and Dian Xiao Er, bringing the total number of restaurants at the upper levels to seven.

CREATING EXCITEMENT, GENERATING VALUE

With more airports around the world focusing on developing their retail offerings, the operating landscape has become more competitive. Besides constantly expanding and refreshing Changi Airport's retail mix, CAG continues to explore innovative ways to grow

Changi's share of the traveller's shopping budget. To achieve this, CAG believes in making shopping at Changi rewarding and exciting, and in line with Changi's Service DNA – positively surprising.

In recent years, CAG has put in great effort to strengthen the value proposition of shopping at Changi Airport for its visitors. First, whether they are flying or not, shoppers enjoy 7% Goods and Services Tax (GST) savings when they shop at Changi Airport, thanks to a popular GST absorption scheme in Changi's public areas. On top of GST savings, members of the Changi Rewards loyalty programme earn points for every dollar they spend at Changi, which can translate into rebates of as much as 6.25% – certainly one of the most attractive returns offered by comparable loyalty programmes in the market.

On top of all these, regular promotions offer shoppers a chance to

win prizes at Changi Airport, including an incredible windfall of S\$1 million – the grand prize of the 'Be a Changi Millionaire' Draw, Changi's anchor shopping promotion. Since the debut of the promotion in 2010, CAG has made two Changi shoppers millionaires. The 'Be a Changi Millionaire' Draw continues to be a great success, both in terms of generating excitement and buzz among shoppers, as well as providing strong support to concessionaires.

The second run of the promotion in 2011 registered a record-high participation rate of 1.8 million entries, giving Changi Airport's retail business and tenants a powerful boost. Concession sales at Changi Airport during the promotion grew by about 20% year-on-year, outperforming passenger traffic growth of about 10% during the same period.

During the year-end holiday season in 2011, CAG organised a resoundingly

World-Class Shopping and Dining



School holidays and weekend activities like cartoon character meet-and-greet events have been very well-received by families visiting Changi.

successful “Shop with VISA & Catch the Angry Birds” shopping promotion. With a minimum spend at the airport, shoppers were able to redeem an Angry Bird plush collectible. This promotion received an unprecedented response, with over 390,000 plush toys redeemed over a two-month period.

Besides shopping promotions, CAG also organised activities throughout the year to make Changi an exciting destination for both travellers and visitors to the airport. For instance, starting from July 2011, meet-and-greet events were held with popular cartoon characters such as Barbie and Ken, Strawberry Shortcake, Kungfu Panda and Sesame Street – which attracted crowds of families with children.

During the school holiday week in March 2012, a special holiday programme with the magical theme of “Once Upon a Time” was held, featuring daily workshops, weekend storytelling sessions and live

performances. The nine-day programme attracted more than 7,000 little participants and their families.

GROWING JOINTLY WITH TENANTS

CAG’s efforts to cultivate a vibrant retail scene ensure that the operating environment is conducive for concessions to maximise their sales potential. To encourage concessionaires to bring in unique and exclusive brands and products, CAG has in place ‘Changi First’, a programme which offers support for the launch of exclusive products or brands at Changi Airport.

In March 2012, CAG partnered DFS in its successful Master of Spirits II event, which featured exclusive products from the world’s top liquor brands, as well as a number of very rare and exquisite specialty wines, many of which were created exclusively for the event. In June 2011,



Flying or not, shoppers enjoy 7% GST savings at Changi Airport.



The Planet Traveller, the world’s largest lifestyle travel store, arrived at Changi in March 2012.

CAG collaborated with Nuance Watsons and SKII on a first-in-the-world launch of SKII’s Skin Signature Eye Cream and Wrinkle Specialist at Changi Airport.

To ensure that all concessionaires and their frontline staff are aligned with Changi Airport’s Service DNA, CAG has a slew of initiatives in place including training for new frontline staff, as well as awards to recognise service excellence among service staff. Infrastructure such as the Instant Feedback System gives concessionaires a channel of collating instant feedback on the service standards of their staff and to exercise service recovery quickly to resolve any issue.

RENTABLE PROPERTIES

CAG leases over 1,500 rentable premises, as well as manages and administers over 60 long-term land leases in Changi Airport. During the year, CAG undertook proactive engagement of the community

“To encourage concessionaires to bring in unique and exclusive brands and products, CAG has in place ‘Changi First’, a programme which offers support for the launch of exclusive products or brands at Changi Airport.”



CAG partnered DFS in the Master of Spirits II event, which featured exclusive and rare wines.



CAG works closely with airline partners on their plans for lounge space to better meet the needs of passengers.

at Changi Airfreight Centre (CAC) with a view to better meet the tenants’ needs for space and amenities. As a result of its efforts, it maintained a 100% occupancy rate for the Megaplex warehouse complex. Occupancy in the other Cargo Agents Buildings in CAC also rose due to new tenancies and existing tenants upgrading to bigger premises. Amenities like vending machines and upgrades to the auditorium were also introduced to provide more convenience to the cargo community.

In the passenger terminals, CAG also took a similar proactive approach to engaging its aviation partners such as airlines and ground handlers to establish their spatial requirements in accordance with their expansion plans. This resulted in several new lounges such as dnata’s Premier Check-in Lounge in Terminal 1 and CIP Lounge in Terminal 3.

CAG also worked with Singapore

Airlines (SIA) on refurbishing the SilverKris Lounge in Terminal 2 to bring lounge services to SIA passengers to a new level. CAG is working closely with airlines such as Qantas and Cathay Pacific to upgrade and expand their facilities.

Office leasing also saw improvements with higher occupancy for the year. This followed an exercise to determine the special requirements of the airport community and optimise the allocation of rentable properties and spaces at Changi Airport.

> **60**
long-term leases

> **1,500**
rentable premises

A Growing Air Hub

IndiGo, India's largest low-cost carrier, marks the inauguration of its Singapore-India services in September 2011.

Changi Airport is currently linked to more than 220 cities about 60 countries and territories worldwide. With a plane taking off or landing every 100 seconds, it is the seventh busiest airport in the world today, in terms of international passengers served. Changi's achievements are by no means a coincidence, but a concerted effort at growing its connectivity and network, as the world's gateway to the Asia Pacific region.



Finnair aircraft painted with 'Angry Birds' livery arrives at Changi Airport following the 'Angry Birds' marketing campaign jointly organised with CAG to promote the Helsinki-Singapore service.



Lufthansa, along with Singapore Airlines, Qantas Airways and Air France, makes Changi Airport the world's busiest multi-carrier A380 hub, with more than 200 weekly flights in and out of Changi.

ANOTHER RECORD-BREAKING YEAR

Despite a slowing world economy, a total of 48 million passenger movements were handled by Changi Airport during the year. This was an increase of 11.6% over the previous year, when Changi registered a record 43 million passenger movements. In tandem, aircraft movements also increased by 14.8% to 311,000 for the year.

Changi Airport experienced its busiest month ever in December 2011, when it recorded 4.53 million passenger movements. The daily traffic record was also broken on 17 December 2011 when 165,000 passengers travelled through Changi.

Passenger traffic growth was strong across all regions. Southeast Asia and Northeast Asia led the charge with double-digit growth, due to the rapid expansion of both regional full-service carriers and low-cost carriers, as well as a fast-growing middle class in Asia. Demand

for travel to and from the Philippines saw the fastest growth during the year, followed by Thailand, Hong Kong, China and Indonesia.

On the connectivity front, Changi's network expanded by six new cities to include Ningbo and Changsha in China, Makassar in Indonesia, Vientiane in Laos, Lagos in Nigeria and Helsinki in Finland. With the addition of Ningbo and Changsha, Changi Airport is now connected to 25 Chinese cities, making Singapore the best-connected Southeast Asian city to China.

Four new airlines also joined the Changi family during the year – Lao Airlines, TransAsia Airways, IndiGo and Finnair. The commencement of Lao Airlines' service to Vientiane means that Changi Airport is now connected via direct flights to all nine of Singapore's ASEAN (Association of Southeast Asian Nations) neighbours. The inauguration

of Finnair's services to Helsinki enhances Changi's connectivity to the Nordic region. On the other hand, TransAsia Airways, riding on strong demand for connectivity to the Taiwanese capital, became the third Taiwanese carrier to operate Taipei-Singapore services. The addition of IndiGo, India's largest low-cost carrier, strengthened Changi's position as the best connected Southeast Asian airport to India, serving 12 Indian cities in total.

Amidst all the bustle, Changi remained the world's busiest multi-carrier A380 hub, with more than 200 flights in and out of Changi on a weekly basis, operated by Singapore Airlines, Qantas Airways, Lufthansa and Air France.

JOINT MARKETING EFFORTS WITH PARTNERS

The growth of Changi Airport as an air hub can be attributed in part to the strong partnerships that Changi Airport



Changi Airport serves over 100 airlines flying to more than 220 cities in about 60 countries and territories worldwide.

Group (CAG) has established with its airline partners to promote awareness of destinations and routes served by Changi. For example, CAG collaborated with four Chinese carriers (Air China, China Southern Airlines, Hainan Airlines and Xiamen Airlines) and major Singapore outbound travel agents on a consortium marketing campaign aimed at encouraging outbound travel to secondary cities in China, such as Changsha, Hefei and Zhengzhou. During the campaign period of one and a half months, advertisements featuring promotional travel packages were placed in major local Chinese dailies. The response was very positive, with both the carriers and travel agents reporting increased sales.

CAG also worked with five regional carriers (SilkAir, Tiger Airways, AirAsia, Jetstar Asia and Berjaya Air) on a 'Weekend Escapades' campaign to promote leisure destinations in Southeast Asia, such as Manado and Lombok

in Indonesia, and Miri and Redang in Malaysia. This was the second time the 'Weekend Escapades' campaign was run, riding on the success of its predecessor held the previous year. Response was similarly very encouraging, and partner airlines reported brisk sales for their flights following the promotion.

One of the key joint marketing initiatives in 2011 was the 'Friends of Japan' campaign which CAG launched in the months following the earthquake and tsunami which hit Japan in March 2011. In the two months immediately following the disaster, visitor arrivals from Singapore, Japan's ninth largest tourist market, declined by as much as 63% on-year.

Working closely with the Japan National Tourism Organisation (JNTO), Singapore Tourism Board, airlines and travel agents, the initiative set out to restore travellers' confidence and passenger traffic between Singapore and

Japan post-crisis. In addition to a three-day 'Enchanting Japan Travel Fair' held at Changi Airport in July 2011 to showcase Japanese entertainment and culture as well as promote travel packages to Japan, CAG also partnered JNTO to organise several activities via print, online and broadcast media in Singapore.

This concerted effort rallied the various tourism partners in providing critical support to one another during the crisis. Traffic between Singapore and Japan subsequently recovered in the second half of the year, and Tokyo retained its position as one of Changi's busiest routes by end 2011.

With Singapore Airlines, a worldwide campaign was launched to boost transfer traffic via Changi. The campaign centred on the popular Singapore Stopover Holidays programme and offered transit passengers S\$20 in Changi shopping vouchers. A joint effort

A Growing Air Hub

“Following the opening of Coolport@Changi by SATS in 2010, CAG actively promoted its new capability to handle perishables cargo and saw a strong 18% growth in Changi’s perishables volume during the year.”



Changi Airport welcomed its first Boeing 747-8 Freighter, operated by Cargolux, during the year.



The 'Friends of Japan' marketing campaign jointly undertaken by CAG and its partners was aimed at restoring travellers' confidence in Japan, an important market for Changi.

to revamp the current Free Singapore Tour offering, which will result in the introduction of new tour programmes in 2012 to enhance transfer passengers' experience, also got underway. CAG also worked with SilkAir, which added five new destinations to its network in 2011, to jointly organise road shows in cities like Changsha – Changi's 24th city link in China.

DEVELOPING THE AIR CARGO HUB

On the cargo front, in the midst of global declines, steady demand in the Asia Pacific region enabled Changi Airport to close the year on a positive note. Some 1.87 million tonnes of cargo were handled during the year, an increase of about 2.3% compared to the previous year. This brought cargo traffic at Changi back to the 2008 pre-crisis level. December 2011 was also Changi's busiest month for airfreight in three years, with 167,000 tonnes of freight passing

through. China has overtaken the United States as Changi's top cargo market, posting a year-on-year growth of 7%.

Changi Airport strengthened its freighter connectivity with three new cargo city links to emerging cargo markets, namely Chongqing and Chengdu in China, and Lagos in Nigeria. At the same time, two new all-freighter operations by Emirates and Lufthansa Cargo joined the Changi family, bringing the total number of carriers with scheduled freighter services at Changi to 22.

Changi Airport also welcomed for the first time the new Boeing 747-8 Freighter in October 2011. The aircraft was operated by Cargolux, the launch customer of Boeing's latest next-generation freighter. Since November 2011, Cathay Pacific Cargo has also commenced operating scheduled B747-8F services between Hong Kong and Singapore.

Following the opening of Coolport@Changi by SATS in 2010, CAG actively promoted Changi's new capability to handle perishables cargo and saw a strong 18% growth in Changi's perishables volume during the year. For the first time, perishables volume accounted for over 10% of Changi's total cargo throughput, signalling a significant breakthrough in CAG's strategy to diversify Changi's cargo base and build resilience in the cargo segment.

Cognisant of the strong headwinds faced by the cargo industry due to the ongoing economic slowdown in the US and Europe and high jet fuel prices, CAG has pledged a S\$15 million cargo support package under its Changi Airport Growth Initiative scheme to support its air cargo partners in 2012/13. The package includes a 20% landing fee rebate at Changi Airport, partnership funding support for new cargo development initiatives

CHANGI AIRPORT HANDLED
1.87 mil
 tonnes of cargo during the year



New upgraded facilities such as an extended runway and a new fire station boosts Seletar Airport's support of the business aviation industry in the region.



Seletar Airport, positioned as a niche airport for business aviation, has seen increased demand for private jet travel in Asia over the past few years.

undertaken with CAG, as well as up to 20% rental rebates for cargo tenants leasing CAG cargo facilities at the Changi Airfreight Centre. The package is estimated to benefit the more than 200 cargo partners of CAG through the moderation of operating costs.

BUSINESS AVIATION TAKING OFF

Business aviation in Singapore has grown strongly over the past few years. Aircraft movements have increased at a compounded annual growth rate of about 21% from 2007 to 2011. This reflects rising demand for private jet travel in Asia, as well as Singapore's attractiveness as a financial and business hub. The Singapore government is also positioning Seletar Aerospace Park as a key maintenance, repair and overhaul (MRO) hub in Asia. To capture the opportunities presented by these trends,

CAG is positioning Seletar Airport as a niche airport for business aviation, general aviation and MRO activities.

Since end 2008, Seletar Airport has been undergoing upgrading works to improve the airport's infrastructure. The first development milestone was achieved in September 2011 with the completion of its runway extension from 1,592 metres to 1,836 metres, an addition of about 250 metres. The extended runway enables Seletar Airport to support larger jet operations as well as heavier take-off loads.

At the same time, the airport's fire station was relocated to its new premises adjacent to the new air traffic control tower. Its facilities were also upgraded to enhance the Airport Emergency Service's (AES) capability to respond swiftly to a crisis situation. The watchroom, which is the nerve centre of AES' operations at Seletar, was elevated for a clearer

surveillance view of the runway and aircraft movement areas. The station's Fire Alarm Monitoring System was also enhanced with a crash display system, which improves AES' response time to aircraft incidents at the airport.

When the airport upgrading works are fully completed in 2014, users can expect a significant increase in the number of parking stands, additional taxiways, upgraded aircraft parking aprons, as well as an instrument landing system. With the enhanced infrastructure and strengthened capabilities, Seletar Airport will operate more efficiently, thereby delivering better services to meet the needs of airport users. It will also be well-placed to support the growth of Singapore's aviation industry and allow its users to capture opportunities brought about by Asia's potentially exponential growth momentum in this sector.

Safety & Security

Ensuring safe and secure airport operations is an important part of the roles Changi Airport Group (CAG) plays as manager and operator of the airport, and developer of the Singapore air hub. To provide passengers with a safe and seamless experience, and airport partners with a sustainable and conducive work environment, CAG's Aerodrome Safety, Airport Emergency Service and Aviation Security units work together and with the airport community to ensure that all stakeholders in the Changi aerodrome uphold strict safety and security standards in all aspects of operations.



A demonstration of the capabilities of AES' new Aircraft Rescue and Fire Fighting vehicles.



AES shifted into a brand new fire station at Seletar Airport in January 2012.

AERODROME SAFETY

The Aerodrome Safety Unit (ASU) oversees the effective implementation of CAG's Safety Management System and ensures continued compliance with regulatory safety requirements at both Changi and Seletar Airports. To this end, the ASU performs stringent monitoring of safety performances of operational divisions within the Changi aerodrome, and conducts regular audits on these divisions.

In recognition of its high safety standards, Changi Airport was again rated 'deficiency-free' by the International Federation of Air Line Pilots' Associations in 2011. Changi has received this rating every year since opening in 1981. This impressive achievement is the result of collaborative efforts between CAG and the wider airside community, including partners such as air traffic controllers, airlines, and ground service providers.

The ASU also plays an important role

to inculcate a safety culture among the airport community. In July 2011, an airport-wide safety campaign was organised. Themed "Staying Accident-Free, Reducing Errors", the campaign sought to reinforce an airport environment free of aircraft accidents and with fewer incidents due to human error. A safety climate survey was conducted in March 2012, after which the findings were shared with the aerodrome community.

Through Changi Airports International, the ASU also assisted in the development and successful implementation of a Safety Management System at the King Fahd International Airport in Dammam, Saudi Arabia, in July 2011.

AIRPORT EMERGENCY SERVICE

CAG's Airport Emergency Service (AES) Division is a specialised unit that provides rescue and fire protection at Changi and Seletar Airports as well as at the Republic

of Singapore Air Force's airbases. It is also responsible for the oversight of fire safety matters and policies at both Changi and Seletar Airports.

During the year, AES continued to enhance its emergency preparedness and rescue capabilities with the delivery of seven new Aircraft Rescue and Fire Fighting vehicles. These are installed with the latest state-of-the-art features and will complement AES' existing fleet. AES also acquired the 'Green Phoenix' B747 aircraft trainer, a life-sized Boeing 747 aircraft that aids AES officers in their tactical approach training.

Besides the new vehicles, AES officers also enjoyed new and upgraded premises at both Changi and Seletar Airports. At Changi, the upgrading works at Fire Station 1 was completed in March 2012. The 30-year-old fire station went through a facelift which included refurbishing, expansion of facilities such



Airport Emergency Officers are also trained in sea rescue operations to ensure that AES is ready to launch search and rescue operations in the event of an aircraft accident at sea in the waters around Changi Airport.

“Changi Airport was again rated ‘deficiency-free’ by the International Federation of Air Line Pilots’ Associations in 2011. Changi has received this rating every year since opening in 1981.”

Safety & Security



Panelists from CAG and partner ST Electronics field questions about the new Perimeter Intrusion Detection System at Changi Airport.

as the crew locker room and gym, and the installation of a new bulk foam storage system. AES shifted into a new fire station at Seletar Airport in January 2012. The new station is outfitted with improved facilities such as larger vehicle parking bays and an elevated watchroom.

On 8 March 2012, CAG signed a Memorandum of Understanding with the Singapore Civil Defence Force to foster closer collaboration in emergency preparedness, information sharing and ensure better preparation for possible crises as well as enable smooth business continuity planning in airport operations and passenger facilitation.

For its outstanding work in the past year, the National Fire & Emergency Preparedness Council presented the Fire Safety Excellence award to AES for fire safety at the four passenger terminal buildings at Changi Airport.

AVIATION SECURITY

The Aviation Security (AvSec) Unit is a key function within CAG that works closely with the Airport Police Division of the Singapore Police Force and other government agencies such as the Ministry of Home Affairs and the Ministry of Transport to ensure high standards of security management at Changi Airport.

In August 2011, to further strengthen the security of the Changi Airport airfield, CAG collaborated with ST Electronics (Satcom & Sensor Systems) to implement a Perimeter Intrusion Detection System (PIDS) for the airport's perimeter fence. The implementation of the PIDS will result in better detection of perimeter intrusions, more accurate determination of the incident location and a faster response time by the security team. This is the first time in the world that this kind of sensor technology is being used for perimeter security enhancement at an airport.



ASU kicked off its "Staying Accident-Free, Reducing Errors" safety campaign with the Airport Safety Symposium.

To enhance security at Seletar Airport, CAG equipped the airport with a new access control system with audit trail and blacklisting functions, compared to the previous manual system that was not equipped with such capabilities. In February 2012, AvSec also completed the Airport Pass Office function in Seletar Airport. By establishing a new one-stop pass office system, AvSec improved staff facilitation by reducing the pass processing time for new applications from three months to 14 working days.

To improve efficiency at the Changi Airfreight Centre (CAC) pass office, CAG implemented the new CAC self-sponsored seasonal airport pass in October 2011. As a result, the average waiting time to exchange and collect visitor airport passes at the CAC was reduced by about 50%, creating a more streamlined process for all staff and visitors at the CAC.

Infrastructure & Development

Changi Airport handled some 48 million passenger movements during the year. While its current capacity of more than 70 million passengers per annum (mppa) still has room to accommodate air traffic growth, Changi Airport Group (CAG) believes in planning ahead to ensure there is capacity to handle future increase in traffic demand.



The graceful movements of *Kinetic Rain* take centre stage at the upgraded Terminal 1.

TERMINAL 4 TO REPLACE BUDGET TERMINAL

In September 2012, Changi Airport's Budget Terminal will make way for the construction of a larger passenger building to cater to continued traffic growth and further strengthen Singapore's air hub status.

The new terminal, Terminal 4, is designed to handle 16 mppa but will open with an initial capacity of 12 mppa. The terminal will be designed to enable efficient passenger processing and quick turnaround of aircraft. Unlike the Budget Terminal, Terminal 4 will have a wider choice of retail and food and beverage offerings, as well as passenger amenities that will better serve the needs of travellers.

Construction of Terminal 4 will begin in end 2013 and the new terminal is expected to be ready by 2017.

ADDITIONAL AIRCRAFT PARKING STANDS

With the strong growth in passenger traffic, flight movements will increase correspondingly and provisions have been made in the Changi Airport master plan to add more than 50 new aircraft parking stands over the next five years to meet the projected demand.

While constructing new stands is one way to increase capacity, CAG has since December 2011, also started using the Multiple Aircraft Receiving Stand (MARS) concept at selected stands in Terminal 2 to provide the flexibility of parking either a single wide-body aircraft or two narrow-body aircraft at each identified stand. Given the increasing proportion of narrow-body aircraft operating out of Changi, this move enhances the efficient use of existing terminal gates and enables more flights to be served via aerobridges.

In tandem with the introduction of

the MARS concept, several fixed gangways and aerobridges nearing the end of their operating lifespans were also replaced to ensure reliability of service. New fixed gangways and aerobridges offering passengers a refreshing new interior design have been put into use in phases. CAG's airport partners like Changi Airport Fuel Hydrant Installation and ground handling agencies also played an important part to ensure the success of this project by working closely to provide aircraft refueling infrastructure and to review ground handling procedures respectively.

To cope with longer term demand, CAG has also started a project to backfill the South End Reservoir at Changi Airport to create land space for more aircraft parking stands in future, particularly to support the operations of Terminals 3 and 4 given their proximity to the site. The new aircraft stands are slated to be built with the Terminal 4 development.

Infrastructure & Development



The Viewing Gallery at Terminal 1 has been extended by 35 metres into the airside to provide closer views of aircraft on the tarmac.

This will help improve the efficiency of aircraft ground movement by avoiding the towing of aircraft over longer distances. When the first phase of the aircraft stand construction works are completed in 2016, the South End Reservoir site will be able to accommodate a total of nine wide-body aircraft stands incorporated with the MARS feature.

A REJUVENATED TERMINAL 1

Opened in 1981, Terminal 1 is Changi Airport's oldest passenger terminal. With Terminal 2 upgraded in 2006 and the opening of Terminal 3 in 2008, a decision was made in 2008 to embark on a major refurbishment of Terminal 1 so that passengers can continue to enjoy the same high level of service and airport experience across all of Changi's three main passenger terminals.

Renovation works were carried out in more than 100 phases in order for

the terminal to continue operating with minimal inconvenience to passengers and airlines. The terminal building's interior design and finishes were refurbished together with improvements to passenger flow at key areas such as the Departure Check-in Hall, Departure Transit Mall, Arrival Hall and along the finger piers leading to the gate holdrooms.

Some 22,000 square metres of floor space have been added to the terminal building, bringing the total floor area of Terminal 1 to about 302,000 square metres. The added space allows for improved services, additional facilities, more generous circulation areas and expanded retail and food and beverage offerings.

The refurbished Terminal 1 showcases a "Tropical City" theme, synonymous with Singapore's tropical landscape. A key feature of the rejuvenated Departure Check-in Hall is the *Kinetic Rain* sculpture which is made up of

1,216 raindrop-shaped bronze carvings hung from the ceiling. The droplets are intelligently controlled to be able to dynamically form different shapes ranging from abstract art forms to recognisable patterns relating to flight including an aeroplane, a hot air balloon, a kite and even a dragon.

Following the completion of upgrading at Terminal 1, CAG is embarking on a Terminal 1 expansion project. The open air car park between Terminal 1 and Changi's iconic control tower will be redeveloped into a multi-use complex, which will have dedicated facilities to support initiatives such as fly-cruise and fly-coach services. In addition, the Arrival Hall and the meeters and greeters area will be further enlarged. New retail space and traveller amenities will be provided to enhance the overall experience of airport users. Planning for this project has begun, with construction slated to begin in 2013.



Lily Pads, a thematic garden in the refurbished Terminal 1, offers passengers an opportunity to enjoy fresh air between flights.

A NEW AIR CARGO HUB

On the cargo front, CAG developed new taxiway and aircraft parking infrastructure to support the development of Changi Airport's first Air Cargo Express Hub, which will be operated by FedEx Express in the second half of 2012 as its distribution centre within Changi's Free Trade Zone.

IMPROVEMENTS IN THE AIRFIELD

During the year, projects to rehabilitate concrete pavement at some of the older aircraft parking stands and the resurfacing of frequently used taxiway areas were also completed. These works ensure the safe use of the airfield infrastructure as aircraft traffic increases at Changi Airport.

In early 2012, CAG completed the replacement of the Airfield Lighting Control and Monitoring System, a mission-critical system which had reached the end of its operating life.

CAG began planning for a new system in September 2009 and successfully completed implementation in March 2012. The new system allows air traffic controllers to better manage aircraft manoeuvres on the ground and improve their operational efficiency. The system has automated features built in to support the implementation of the Advanced Surface Movement Guidance and Control Systems envisaged by the International Civil Aviation Organization. This air traffic system provides real-time aircraft movement and planning inputs to minimise aircraft taxiing delays while optimising airfield handling capacity.

PLANNING FOR THE LONG TERM

To guide Changi Airport's growth over the next 25 years, the Ministry of Transport has formed the Changi 2036 Steering Committee. The committee will provide strategic direction for the



Regular airfield maintenance ensures the safe use of the airfield infrastructure as aircraft traffic increases at Changi Airport.



The Ladies' powder room in Terminal 1 provides a panoramic view of the airside and aircraft.

future development of Changi Airport to maintain its position as a vibrant and world-class air hub.

The multi-agency committee involving CAG will develop a concept plan that addresses key issues such as the development of a future Terminal 5 and propose measures to complement Changi's existing infrastructure. CAG is committed to playing an active role in the committee to chart the future of Changi Airport.

Changi Airports International

As Changi Airport continues to be recognised for its clockwork efficiency, excellent passenger experience and good connectivity, Changi Airports International (CAI), a wholly-owned subsidiary and investment arm of Changi Airport Group (CAG), makes headway globally by spreading best-in-class practices and creating value in its portfolio of quality investments.



CAI provides consultancy services to various airports, such as Brunei International Airport.

During the year, CAI explored a number of potential deals in Brazil, Europe and Russia. On the consultancy front, CAI was active in various parts of the world including China, India, the Middle East and Brazil. It successfully delivered a number of assignments covering commercial operations, master planning, route development and capacity development.

SAUDI ARABIA

CAI's six-year management contract in Dammam's King Fahd International Airport (KFIA) passed its halfway mark during the year. Having successfully transformed the airport in the first two years – through enhancements in customer service and facilities – CAI's team at KFIA focused on strengthening the commercial orientation of the airport in 2011/12. The medium-term aim is to achieve sustainable operating cash flow and minimise financial support from the General Authority of Civil

Aviation (GACA) of Saudi Arabia.

KFIA's total revenue for the year ended December 2011 registered a double-digit increase over 2010, with both aeronautical and non-aeronautical revenue streams showing significant improvement. These results demonstrated that the commercial focus had begun to bear fruit.

The increase in aeronautical revenue was in line with KFIA's strong traffic growth in 2011, with passenger and aircraft movements outstripping 2010 figures by 12% and 10% respectively. Passenger growth was fuelled largely by international traffic, which surged 21%, due to the introduction of four new carriers, namely Air Arabia Egypt, Air India Express, Flydubai and Turkish Airlines, and the expansion of services by nine existing airlines at KFIA.

The increase in non-aeronautical revenue in 2011 was largely attributable to the securing of key commercial contracts including those for car rental services,

advertising and car parks. Following the signing of a contract with a leading outdoor advertising company, where revenue to KFIA is based on a percentage of sales, advertising revenues of the airport increased substantially in 2011.

BRUNEI

CAI and the Brunei Economic Development Board signed an agreement in October 2010 for the upgrading and development of Brunei International Airport. CAI completed the preparation of the concept design for the modernisation of the existing terminal building in April 2011. The construction tender for the expansion project, which included the detailed design of the terminal, was subsequently launched. The award of the construction contract in November 2011 marked the commencement of the project management phase which is expected to be completed by end 2014.

INDIA

CAI's first investment in an Indian greenfield airport city project, the Durgapur Aerotropolis, is set to be completed by end 2012. Besides supporting the local management team in supervising the construction of the airport, CAI was also involved in air traffic analysis and formulating an airline marketing plan for the airport. At an aviation summit organised by Bengal Aerotropolis Projects Limited (BAPL) in February 2012, several airlines expressed interest in operating at Durgapur.

During the year, CAI also successfully secured a major Indian financial institution, Infrastructure Leasing & Financial Services Limited (IL&FS), as an additional shareholder in BAPL. Through its various group and associated companies in related fields of finance and infrastructure, IL&FS will add value in terms of financing as well as infrastructure development of the township.

BRAZIL

Stemming from the successful completion of an earlier master planning consultancy project for Tancredo Neves International Airport, CAI was re-appointed as consultant and successfully completed the concept design of the new Tancredo Neves Terminal 2 building and airfield works for the airport during the year.

ITALY

Under an ongoing engagement to advise Aeroporti di Roma (ADR) on the development of Rome's Fiumicino Airport, CAI, through its subsidiary Changi Airport Planners and Engineers (CAPE), completed the concept master plan and a designer was subsequently appointed to work on a detailed master plan. CAPE will assist ADR to review the works of the designer. CAI has also been assisting ADR in exploring ways to invest in capacity expansion for the airport so as to improve its commercial value.

CHINA

During the year, CAI conducted two runs of a customised airport operations and management programme for 50 staff from Henan Province's Zhengzhou Xingzheng International Airport. This training followed the completion of two consultancy projects CAI undertook with the airport in 2010.

In addition, CAI was engaged by Chongqing Jiangbei International Airport to plan the commercial area for its new Terminal 3A. The first draft of the retail layout plan with detailed product mix has been completed, subject to confirmation of the final terminal design in 2012.

FUTURE PLANS

CAI will play an important role in flying the Changi flag and replicating the Changi Experience beyond the shores of Singapore by focusing on airport investments and consulting.

In KFIA, CAI's focus will be on the airport's transformation into a corporatised entity, as part of GACA's long-term plan to commercialise its main airports. Fresh from CAG's own recent corporatisation exercise in 2009, CAI will share its expertise and play an important role during this significant period in Saudi Arabia's aviation history.

On the consultancy front, CAI will boost its airport consultancy capabilities and client network. As a consultant equipped with day-to-day operating experience and leveraging the strengths of its parent company, CAI will offer practical, tried-and-tested solutions to its clients. It will also expand its training portfolio by providing education to personnel from client airports, in collaboration with associated institutions like the China-Singapore Aviation Management Academy and the Singapore Aviation Academy.

Capacity planning and development are critical factors for the success of any airport. To this end, CAI will continue to provide such assistance to its investment projects including the greenfield airport at Durgapur as well as in established hubs such as Rome. CAI will explore consulting solutions in the entire value chain of an airport's life cycle, ranging from traffic projection, airport master planning and design, construction management, operational readiness and testing, air hub development and airport operations (both aeronautical and non-aeronautical) as well as future terminal expansions.



A commercial focus contributed to significant improvement in KFIA's non-aeronautical revenue.



CAI is involved in key preparation work to get Durgapur Airport ready by end 2012.

People Development

Three years after Changi Airport's corporatisation in 2009, Changi Airport Group (CAG) now employs about 1,400 employees, a number which has grown in tandem with the business. CAG continually seeks from the market talent with experience, drive and skills to augment the existing base of employees. Following consecutive years of exceptional performance, the increase in employee numbers is necessary to ensure that the company remains well resourced to meet its goals and objectives.



CAG awards bursaries to children of staff to recognise their academic efforts.

CAG does not measure human resource growth purely in terms of numbers. The company's focus is also on employee development – on areas like skills upgrading and improving employee welfare to allow them to better contribute to CAG with the peace of mind that their needs are taken care of. As CAG continues to grow, such employee-centric initiatives will continue to be reviewed, with new schemes planned and rolled out when necessary.

To cater for growth, attracting the best talent from the market is essential. Through scholarship and internship programmes, CAG is building a steady pipeline of resources to meet future talent and leadership challenges to be faced by the aviation industry.

During the year, more than 1,000 applications were received for the CAG Undergraduate Scholarship and over 500 applications were received for the CAG Internship Programme. From these

applications, three scholarships and 15 internships were offered after rigorous selection. To enable a comprehensive leadership development programme for existing and future leaders, CAG is refining and finalising its leadership competency framework that forms the basis of leadership development for leaders at all levels of the organisation.

LEARNING CULTURE

There is a strong learning culture in CAG. During the year, a series of core programmes were conducted to support the company's strategic business objectives. These concentrated on key business and people management skills such as negotiation, financial and performance management skills. Training opportunities were also provided through the 'CAG Learns @ Tea' series of bite-sized learning programmes, which were attended by close to 500 employees.

CAG also launched the inaugural Learning Festival in 2011, which included a Business Creativity Forum featuring renowned innovation author, Fredrik Häréns, and various workshops to impart creativity techniques. The festival drew over 500 participants.

EMPLOYEE ENGAGEMENT

CAG was awarded the Plaque of Commendation at the prestigious May Day Awards in April 2012. The award recognises organisations for their significant and sustained contributions to the labour movement, through the promotion of good industrial relations, support for training initiatives and helping workers improve their welfare. The award is the culmination of the hard work that CAG has put in to invest in the growth of its employees. The nomination of CAG for the award by its union partner, the Singapore Manual & Mercantile Workers'

Union, was a recognition of CAG's efforts in employee engagement.

The inaugural employee engagement survey achieved an encouraging response rate of close to 90%. The survey findings will be used to enhance existing strengths while closing any gaps, in order to build the kind of work environment and leadership desired by employees. They will also provide reference points as the company continues to inculcate a corporate mindset and culture.

In the area of employee communications, a new corporate intranet, Changi Vine, was launched in April 2011 to provide a one-stop portal for employee-relevant news including corporate developments, staff discounts and social activities. In September 2011, Changi Vine was supplemented by Changi GrapeVine, an online channel for CAG employees to share their ideas and thoughts about happenings in the company. Changi GrapeVine aims to facilitate employee communication and engagement by giving staff a convenient platform to communicate freely with one another and to allow ideas to be shared and developed quickly and easily.

More than 1,000 applications were received for the CAG Scholarship and over 500 applications were received for the CAG Internship Programme.

In 2011/12, CAG also celebrated its second anniversary. To show support and appreciation for its employees, various activities were conducted including an appreciative postcard contest, weekly employee videos and quizzes, as well as a senior management weekly column on building an appreciative culture.

Other initiatives aimed at creating a supportive environment are the CAG Bursary Award and Families Onboard programmes. The CAG Bursary Award demonstrates CAG's care towards its junior employees by awarding their children with bursaries

in recognition of the latter's academic efforts. A total of 80 students received awards during the year.

The Families Onboard Programme gave the families of employees an insight into Changi Airport's operations so that they could better understand and appreciate the employees' work at CAG.

To further build stronger relations among colleagues, CAG's first Dinner & Dance with the theme 'Blast From The Past' was held at Wavehouse Sentosa in October 2011.

EMPLOYEE VALUE PROPOSITION

To elucidate the qualities and attributes that CAG wishes to instill in its employees, CAG developed an Employee Value Proposition (EVP). This characterises CAG and distinguishes it from other organisations by crystallising key attributes which it possesses or seeks to acquire over time.

A suite of initiatives was implemented to support and complement the introduction of the EVP. The on-boarding process for new hires was streamlined and the CAG Jobs Connection was launched. The latter is an internal jobs market which facilitates transfer requests to meet the career aspirations of employees. It is also a platform to encourage employees to make referrals for job openings in CAG.



CAG staff dress up for a fun night at the 2011 CAG Dinner and Dance, with its theme 'Blast from the past'.



Family members of CAG staff learn more about Changi Airport during the inaugural Families Onboard Programme.

Sustainability & Community

Changi Airport Group (CAG) recognises that sustainable development is key to its business and to maintaining Singapore's position as a global air hub. At the operational level, CAG continually seeks ways to use less energy, reduce waste and recycle more. Besides supporting and championing green causes, the company also believes strongly in supporting the community. CAG has an active programme that reaches out to youths and encourages employee volunteerism.



"Ecolutionists" campaigning for the reduction of CAG's carbon footprint.



CAG teams race against each other on carts built using recycled materials in an "Eco-Drift Race".

SUPPORTING THE ENVIRONMENT

CAG actively engages its employees, encouraging them to embrace and support sustainability at the workplace and in their personal lives. Environment roadshows are organised to update them on CAG's green roadmap for the year ahead, so that they too can be active advocates by playing their part and spreading the environment message to the wider airport community.

Held in conjunction with Singapore's Clean and Green Week, a lunchtime roadshow and exhibition was organised in November 2011 to encourage the adoption of environmentally-friendly practices in the office. Other activities included a recycled-craft workshop, a corporate recycling day and an "Eco-Drift Race", where teams built carts using recycled material and raced around the airport's car park in them.

Over the course of the year, CAG

rolled out various initiatives to make its corporate offices more eco-friendly. Office printers were set for duplex printing as a default, plants were brought into the office to improve air quality, more paper recycling bins were provided, cornware cups replaced styrofoam cups and more electricity meters were installed to give a better picture of the company's energy consumption. Following the implementation of these initiatives, CAG was audited by the Singapore Environment Council and achieved Eco-Office certification in December 2011.

For the fourth year running, CAG supported the World Wildlife Fund's Earth Hour initiative on 31 March 2012. For one hour from 8.30 pm to 9.30 pm, lights were dimmed at much of Changi Airport's four terminals. Decorative lights within the airport were switched off and non-critical operational lights were dimmed for 60 minutes. With this one-hour

effort, CAG achieved estimated energy savings equivalent to the total amount of electricity consumed by a typical 4-room HDB apartment for three months.

EMPOWERING LIVES

In the second year of its community partnership and corporate responsibility efforts, CAG continued to work with the Children-At-Risk Empowerment Association (CARE Singapore) and extended its outreach to two new youth organisations, Northlight School and Assumption Pathway School.

Youths from the three organisations participated in the Youth Passport Programme – CAG's in-house volunteer and youth outreach programme – and were given a unique behind-the-scenes look at how the airport operates through a myriad of activities such as airport and fire station tours. Some of the participants also had the opportunity to attend

work-readiness workshops and shadow CAG staff, where they gained first-hand experience of what it takes to work at Changi Airport.

Employee volunteerism is an important element of CAG's community outreach efforts. To support this, the company grants three days of volunteerism leave each year. Employees are encouraged to share the best of Changi's culture of excellence and service with youths, to inspire and empower them to reach their fullest potential. Through such priceless real life experiences, CAG staff are imbued with a stronger sense of corporate citizenship and concern for others.

In August 2011, CAG celebrated its first CSR Volunteer Week and recognised active volunteers at an appreciation ceremony. During the week, CAG volunteers worked with youths in workshops to 'Build-A-Bear', 'Design a T-shirt & Tote Bag' and 'Build a Terrarium'. These handmade items were then sold to raise funds for CARE Singapore.

In December 2011, CAG employees turned Santa Claus by granting the Christmas wishes of the youth beneficiaries. These youths had penned their Christmas wishes - such as for school shoes and textbooks - and hung them on a Christmas tree at the CAG corporate reception. Staff could then choose which wish they wanted to grant. This initiative

drew an overwhelming response company-wide and all wishes were granted. To thank the staff for their generosity, the youths organised a special Christmas party in return.

During the year, CAG donated over S\$56,000 through various fundraising and corporate donations towards charitable causes. It also raised over S\$237,000 through the Donation Box Drive at Changi Airport. The donation box collection was allocated to four youth-related programmes under the care of the Community Chest of Singapore and CARE Singapore – the Autism Youth Centre, eGen, Bestari Institute of Technical Education and Uth Power! Programme.

“Over the course of the year, CAG rolled out various initiatives to make its corporate offices more eco-friendly.”

FOSTERING PARTNERSHIPS

In the spirit of continuous learning from the best in the aviation business, CAG signed a sister airport agreement with Beijing Capital International Airport (BCIA) in 2009. The objective of this collaboration was to strengthen the relationship between both parties, as well as to facilitate information and knowledge sharing.

As part of a similar partnership with Munich Airport, CAG sent a team of staff to Munich in October 2011 for an exchange programme. The staff had the opportunity to learn and exchange views in the areas of airport operations such as airport collaborative decision-making

process, airport emergency services and air traffic development.

As one of the key players in the Singapore aviation scene and one of the key supporters of Singapore Airshow 2012, CAG played host to CEOs from airports in the region and Africa. Guests enjoyed the comprehensive Singapore Airshow programme, which included the prestigious Singapore Aviation Leadership Summit, a global event bringing together key stakeholders for an exchange of views on key issues and challenges facing the aviation industry. The event, with the theme 'Driving Change, Overcoming Challenges', saw participation from airlines, airports, air navigation service providers, manufacturers, government agencies and regulatory authorities.



CAG volunteers work with youths to design T-shirts and tote bags during its first CSR Volunteer week.



CAG staff at a Games Day event organised for youths who participated in the Youth Passport Programme.



Students get hands-on experience in putting out a fire with a water hose.



Awards and Accolades

Month	Publication/ Organisation	Awards	No. of Times
April 2011	Cargonews Asia	Best Airport – Asia	25
	Cargonews Asia	Best Green Service Provider – Airport	2
May 2011	Business Traveller (Middle East)	Best Airport in the World	8
	Ultratravel Magazine	Best Airport in the World	5
	Duty Free News International & Travel	Airport Authority in Asia / Pacific with the Most Supportive Approach to Travel Retail	12
	Retailer International		
Aug 2011	TravelWeekly China	Best International Airport	4
Sep 2011	Business Traveller (Asia Pacific)	Best Airport in the World	20
	Business Traveller (Asia Pacific)	Best Airport in Asia Pacific	2
	Business Traveller (UK)	Best Airport in the World	24
Oct 2011	World Travel Awards	Asia's Leading Airport	8
	Centre for Asia Pacific Aviation	Airport of the Year	3
	Travel Trade Gazette (Asia)	Travel Hall of Fame – Airport	9
Nov 2011	Selling Long Haul	Best Long Haul Airport	8
	Business Traveller (China)	Best Airport in the World	7
	Institute of Service Excellence, Singapore Management University	Singapore Service Excellence Medallion	–
	Travel Media Awards	Best International Airport	1
Dec 2011	Global Traveler	Best Airport Dining	2
	Business Traveler (US)	Best Airport in the World	19
	Conde Naste Traveller India	Best Airport	1
Jan 2012	World Travel Awards	World's Leading Airport	6
	International Federation of Airline Pilots' Associations (IFALPA)	Deficiency-Free	31
Feb 2012	Wanderlust	Top Worldwide Airport	10
	DestinAsian	Best Airport in Asia Pacific	7
	Airports Council International	Best Airport by Size (over 40 million)	1
	Travel + Leisure India and South Asia	Best Airport (World)	1
Mar 2012	Airport Transport News	Airport of the Year	1

Socially Yours

The digital era has been rapidly and constantly evolving, with social media changing the way brands communicate and engage with their customers and other stakeholders. Changi Airport launched its *Fans of Changi* social media programme in 2009, shortly after its corporatisation, and today platforms like Facebook, Twitter, YouTube and Instagram allow its many fans to share what they like about their favourite airport.

facebook



Changi Airport

87,597 likes • 10,673 talking about this • 763,391 were here



21 July

Lorraine Fitzpatrick ▸ **Changi Airport**

Love your airport cant wait to come back and see your new renovations **shopping shopping and more shopping** and the best thing is you never close Xx.



27 June

Peter Russell ▸ **Changi Airport**

Amazing airport – effecient, friendly, respectful people;
Travel between terminals on sky trains – what fun; Singapore you rock



8 February

Tim Dom ▸ **Changi Airport**

If you read about this airport, it has free computers and wifi through out the AP. It has a hotel with a swimming pool, Restarunts from east and west, lots of shopping. It is a destination itself.
This is the coolest AP on the planet.



19 July

Gil Ong ▸ **Changi Airport**

A few years ago, I returned to Singapore after being away for a few years. The immigration officer who took my passport said **“Welcome Home.”** Totally made my day!



26 May

Katie Julien ▸ **Changi Airport**

Most impressive airport I’ve ever landed in.



8 February

Cherry B Dioneso Hejda ▸ **Changi Airport**

Love, Love Singapore Changi Airport!
The best airport that I have ever been! Lots of shopping, free internet and loads of activities and entertainment! Very efficient as well! So if I win the **“Be a Changi Millionaire”** Grand Draw Changi Airport will a must stop on all my world travel itenaryry! Whoa!!!! X