

High-flier

It was a busy year for Changi Airport, which handled a record 58.7 million passengers last year, 5.9 per cent higher than in 2015. Dec 23 was the busiest day ever, with 202,359 passengers handled. With a slew of projects in the pipeline, Changi is aiming to fly even higher than it has in the last 36 years. Lim Yong traces its progress over the years and gives a snapshot of what lies ahead.

Since Changi Airport started operating in 1981, it has won 533 best airport awards, out of which 26 were received last year. These include Skytrax's World's Best Airport Award 2016 – for the fourth time in a row – and Business Traveller's "Best Airport in the World" award for the 29th consecutive year. Despite the accolades, competition is tough and Changi has to keep upgrading and improving to maintain its status as a premier air hub for regional and global traffic. From 8.1 million passengers a year when Terminal 1 opened in 1981, traffic has grown to 58.7 million last year. By 2025, it is expected to hit about 80 million.

To ensure adequate future capacity, T4 will open in the second half of this year while T5 – which will eventually be bigger than T1, T2 and T3 combined – is slated to open by the end of the next decade. When all the work is done, Changi will be able to handle about 135 million passengers a year, from 66 million now. To wow travellers and visitors, construction is in full swing for Jewel Changi Airport, which is slated to open in 2019. Located where T1's open-air carpark used to be, the multi-storey Jewel complex will feature mainly retail offerings and be linked directly to the terminal.

T3's unique roof architecture

- 919 skylights with special reflector panels on the 300m by 200m roof keep the tropical heat out but allow natural light into the complex
- Artificial lights come on at night and on cloudy days

Crowne Plaza Changi Airport

- Opened in 2008
- A nine-storey, 320-room hotel that is connected to T3
- A new 10-storey extension, unveiled in August last year, brings the total number of rooms to 563 – an increase of 75 per cent in room capacity



Roof Top Lantern

Illuminated at night in three colours – amber, bluish grey and yellow

T1 Viewing Gallery

Extended by 35m into the airside, this is the closest visitors can get to an aircraft

Jewel Changi Airport

- The glass-and-steel mixed-use complex, ready by 2019, will occupy the 3.5ha carpark fronting T1.
- **Highlights include:**
 - About 300 shops
 - A 130-room boutique hotel
 - Facilities for airport operations
 - Singapore's largest indoor garden
 - 2,500-space underground carpark
 - Pedestrian links to T2 and T3
- Named Best Futura Shopping Centre at MAPIC Awards 2016 in Cannes, France – an eminent retail real estate industry event – in November last year



Opened Jan 9, 2008
Cost of construction \$1.75 billion
Total floor area 380,000 sq m
Handling capacity per year About 22 million

T3 is the capstone of Changi's three-terminal masterplan which was first conceived in the 1970s.

• Its see-through glass concept allows people to view the terminal from kerb to tarmac.



Opened July 1, 1981
Cost of construction \$585 million
Total floor area 308,000 sq m (after 2008 upgrading)
Handling capacity per year About 21 million

• A two-week open house three months before its opening attracted more than 250,000 people – or one in every 10 Singapore residents.

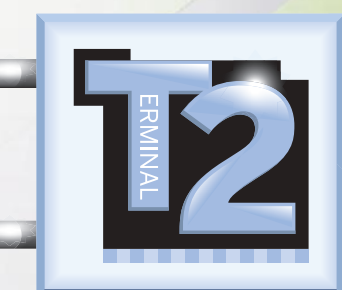
• 22,000 sq m of space is added in a \$500 million facelift completed in 2012.



The Kinetic Rain is programmed to form 16 different patterns and shapes such as an airplane.



Watch planes take off, land and park a mere 4m away at the Viewing Gallery.



Opened Nov 22, 1990
Cost of construction \$838 million
Total floor area 358,000 sq m
Handling capacity per year About 23 million

• Six-storey building

• About 127,000 people visited T2's five-week open house prior to its opening



Back in a sea of yellow – amid 500 sunflowers – in the Sunflower Garden. The rooftop garden offers visitors a clear view of the runway and nearby aircraft parking bays.



Two-storey taxi deck

- Opened in May last year
- Taxi queue capacity: About 300 taxis
- Built to ease traffic flow along Airport Boulevard

JetQuay CIP Terminal

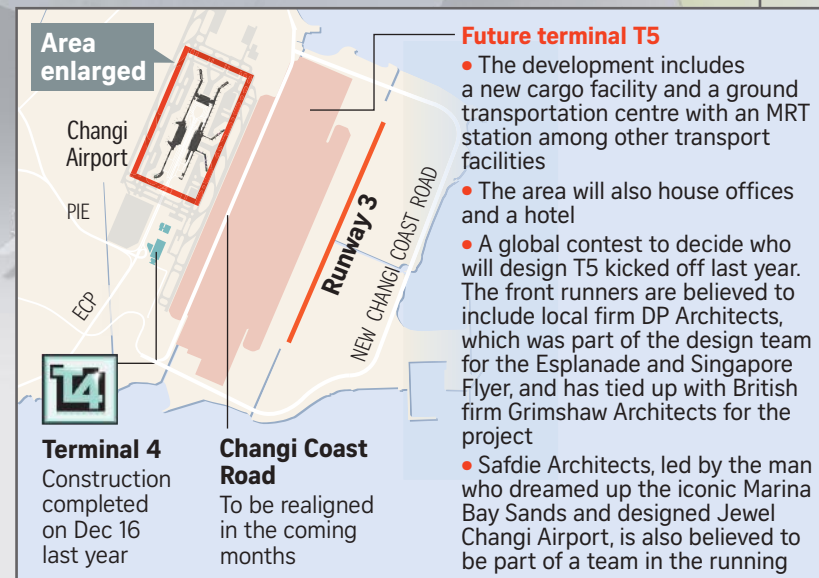
- Opened in 2006
- A standalone terminal for private jets and commercial travellers that offers personalised check-in, baggage handling and immigration clearance for a fee



Skytrain

- A system linking the airport's three terminals at both the transit and public areas
- The 6.4km system will be upgraded by 2019 to cope with an expected increase in passenger traffic after Jewel Changi Airport is completed

With more than 7,000 weekly scheduled flights to 380 cities worldwide, an aircraft takes off or lands at Changi roughly every 90 seconds



Future terminal T5

- The development includes a new cargo facility and a ground transportation centre with an MRT station among other transport facilities
- The area will also house offices and a hotel
- A global contest to decide who will design T5 kicked off last year. The front runners are believed to include local firm DP Architects, which was part of the design team for the Esplanade and Singapore Flyer, and has tied up with British firm Grimshaw Architects for the project
- Safdie Architects, led by the man who dreamed up the iconic Marina Bay Sands and designed Jewel Changi Airport, is also believed to be part of a team in the running

Expected opening Second half of 2017
Cost of construction \$985 million
Total floor area 195,000 sq m
Handling capacity per year (planned) 16 million – more than double that of the former Budget Terminal

• 25m-high, two-storey building

• It will have a fully automated baggage handling system

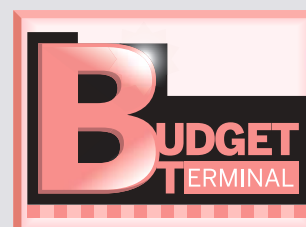
• There will be a control tower to manage aircraft movements, a multi-storey carpark, an outdoor taxi holding area and a bus terminus



Opened March 26, 2006
Closed Sept 25, 2012
Cost of construction \$45 million
Total floor area 28,700 sq m (after expansion project in 2009)

Handling capacity per year Seven million

• Single storey – has no travellers, escalators and aerobridges



DEFINING MOMENTS

1970s – 1980s

Paya Lebar Airport, Singapore's third civil airport after Kallang Airport and Seletar Airport, opened on Aug 20, 1955

Mid-1970s

Paya Lebar Airport is at full capacity and its vicinity is unsuited for future expansion

1975

A decision is made – against external experts' advice – to develop a new airport in Changi. The site is chosen because it would not inhibit high-rise developments

1977

Extensive earthworks and reclamation from the sea are completed in May. Construction of Changi Airport commences the following month

A unique building feat (right): The 1,350-tonne, three-storey control tower cabin is built on the ground. It is then lifted up by four jacks and eight cables at a rate of 6m a day.



1981 June 30

Paya Lebar Airport sees off its last civilian aircraft, concluding its 26 years of service. It is converted into a military airbase

July 1

Changi Airport starts operations. It is the world's largest airport and has the world's largest column-free hanger at the time

140 passengers on the first flight into Changi Singapore Airlines SQ 101 – received certificates to commemorate the event (right).



1986

Construction of a second terminal begins. Changi Airport crosses the 10 million passenger milestone

1988

Changi Airport gains its first Best Airport in the World title from Business Traveller (UK) magazine

1990s

1990 Nov 22

Terminal 2 begins operations

One of the first passengers to land at the new Terminal 2 is greeted by an airport staff member in a futuristic-looking suit (right).



1991 March 27

After a standoff of eight hours, SAF Commandos storm a hijacked plane – SQ 117 – killing all four hijackers onboard. All hostages are rescued unharmed

1994

Changi Airport crosses the 20 million passenger milestone

1995

T1's refurbishment, which cost \$170 million, is completed

July 20, 1996

Official opening of two new finger piers at Terminal 2. 22 aerobridges are added

2000s

2002 Feb 8

Changi Airport MRT station opens

2003 April and May

During this period, passenger traffic falls almost 60 per cent due to the Sars outbreak

2004

The world's longest non-stop commercial flight takes off at Changi Airport for a 16-hour trip to Los Angeles on Feb 3. Changi Airport crosses the 30 million passenger milestone

2005 Feb 18

Changi Express, a free tabloid-size paper, is launched. It is replaced by a monthly magazine, Changi Class, in July 2007

2006 March 26

Budget Terminal, Asia's first dedicated terminal for low-cost carriers, opens



July 1 Changi Airport celebrates its silver jubilee

September

\$240 million facelift of Terminal 2 completed. The Departure/Transit mall is expanded and a glass canopy is added at the Departure kerbside

2008 Jan 9

Terminal 3 begins operations

May

\$500 million T1 upgrading project begins

2009 July 1

Singapore Changi Airport is corporatised. Changi Airport Group is formed to manage and operate Changi and Seletar airports while Civil Aviation Authority of Singapore focuses on growing the civil aviation sector

August

Changi Airport launches its official Facebook, Twitter and YouTube accounts

2010s

2010

Changi Airport crosses the 40 million passenger milestone

2012 Sept 25

Budget Terminal closes – after 150,000 flights and 18 million passenger movements – to make way for the new Terminal 4

Dec 28

Changi Airport crosses the 50 million passenger milestone

2013 August

PM Lee unveils plans for two new terminals and a mixed-use complex at Changi Airport at the National Day Rally

Nov 5

Changi Airport breaks ground for the new Terminal 4

2020 and beyond

Terminal 5 – to be developed in phases with an initial handling capacity of about 50 million passengers a year – and a third runway at Changi East are expected to be ready by the end of the next decade.