



The Air Cargo Hub that Takes Your Business Further.

With over 6,900 weekly scheduled flights, to some 150 cities, carried by about 100 airlines, Changi can connect you to global markets at reliable speed. Moreover, from temperature-sensitive pharmaceuticals to time-sensitive e-commerce parcels, Changi can do it all within a 24/7 Free Trade Zone that is equipped with dedicated bays that can handle the largest freighter planes.

Fundamentally right. Future-ready.



Dedicated cargo developments: Changi Airfreight Centre (CAC)





Over 133,000m² of warehouse and office capacity at Changi Airfreight Centre



2 major runways, with the third runway scheduled for operationalisation by mid 2020s, each 4km long



27 widebody freighter parking bays fronting airfreight terminals, with more in the pipeline



Capabilities for A380 and B747-8 freighter planes



No night flight restrictions

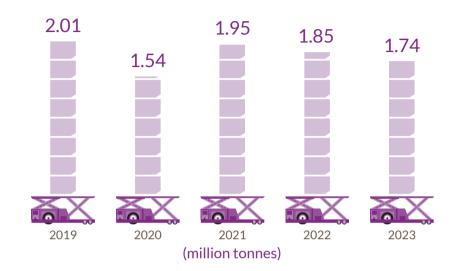


Round-the-clock efficient checkpoint cargo clearance operations





Our International Cargo Throughput



Our International Ranking



(Source: Airport Council International as of August 2024)

Our Top 10 International Cargo Markets in 2023



Singapore's Logistics Competitiveness

Singapore is ranked top globally for its logistics capability and cargo performance.

2023 LOGISTICS PERFORMANCE INDEX (LPI)

COUNTRY	<u>LPI RANK</u>	<u>LPI SCORE</u>
Singapore	1	4.3
Finland	2	4.2
Denmark	3	4.1
Germany	3	4.1
Netherlands	3	4.1

Timeliness Logistics competence SINGAPORE 2023 LPI Customs Infrastructure Logistics competence International shipments

(Source: World Bank 2023)

DHL 2024 GLOBAL CONNECTEDNESS INDEX



1. Singapore



2. Netherlands



. Ireland



l. Luxembourg



Malta



6. Switzerland



Doloium



. United Arab Emirates



. United Kingdom



10. Hong Kong SAR, China

(Source: DHL 2024)

An Integrated Logistics Gateway

Designed to move cargo like clockwork round the clock.



of the world's largest airfreight forwarders have established major operations in Singapore.



ASIA

AWOT Global Logistics Group
CTS International Logistics
Dimerco Express Group
Kerry Logistics
Kintetsu World Express
Nippon Express
NNR Global Logistics
Sinotrans

Yusen Logistics



EUROPE

Bolloré Logistics

cargo-partner

CEVA Logistics

DACHSER

DB Schenker

DHL Global Forwarding

DSV

GEODIS

Hellmann Worldwide Logistics

Kuehne + Nagel

Maersk Logistics



USA

C.H. Robinson
Crane Worldwide Logistics
Expeditors
FedEx Logistics
UPS Supply Chain Solutions

(Source: 2023 Armstrong & Associates, Inc.)

Our International Air Connectivity

100 airlines. **150** cities. **50** countries.

All from Changi Airport.

One of the widest networks in Asia:

- With more than 6,900 weekly scheduled flights, an aircraft takes off or lands at Changi roughly once every 90 seconds
- Kev markets in Asia Pacific within 7-hour flight time
- >25 cargo airlines operating close to 500 weekly freighter flights
- Over 50 freighter city links
- Regional airlines offering coverage and interline opportunities to emerging Southeast Asian markets



Papua New Guinea

Australia

Solomon Islands

New Caledonia, Fiii France

Norfolk

New Zealand

As of October 2024

Our Family of Cargo Airlines

- Aerologic
- Air Hong Kong
- Air Incheon
- Asia Cargo Airlines
- Asiana Airlines
- Cargolux Airlines
- Cathay Cargo
- China Airlines

As of October 2024

China Cargo Airlines

- DHL Aviation
- Emirates
- EVA Airways
- FedEx Express
- Hong Kong Air Cargo
- K-Mile Air
- Korean Air
- My Indo Airlines
- Nippon Cargo Airlines

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- Qatar Airways
- Raya Airways
- SF Airlines
- Shandong Airlines
- Sichuan Airlines
- Silk Way West Airlines

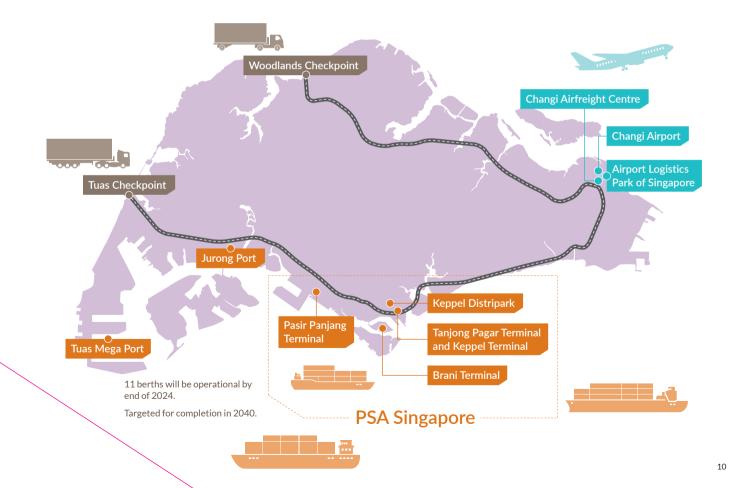
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- Singapore Airlines
- United Parcel Service

Our Seamless Multimodal Connectivity

Air. Sea. Road. We've got you covered.

- Dense sea and road networks for multimodal transshipment
- Seamless intermodal connectivity between one of the world's busiest seaports and airports
- Short drive from PSA terminals, the world's second largest container port and busiest transshipment hub with connectivity to over 600 ports via 200 shipping lines
- Regional cross-border trucking networks





Our Key Cargo Verticals

From temperature-sensitive pharmaceuticals to time-sensitive e-commerce parcels, Changi is well-equipped to handle all types of cargo. We pride ourselves on delivering air cargo excellence to all our customers and stakeholders.

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Our Operational Expertise: Cold Chain Logistics

Handling Pharmaceuticals with Delicate Care

Your pharmaceutical shipments will be transported with the highest standards through Changi – thanks to the trusted capabilities of the first and largest IATA Certificate of Excellence for Independent Validators in Pharmaceutical Logistics (CEIV Pharma) certified community in Asia Pacific. Together, Changi Airport offers:



Temperature-controlled environment throughout the airport cool chain



Over 375,000 tonnes of annual cool chain handling capacity (by cargo handlers) with state-of-the-art temperature-controlled infrastructure & equipment



Trained and experienced cool chain specialists



Unparalleled air connectivity and multi-modal solutions



Find out more about our Pharmaceutical Handling Capabilities here.

A Strong Collaboration for an Unbroken Cool Chain

Extensive capabilities, efficiency, and reliability are all brought together through a partnership that covers the entire air cargo supply chain



Pharma@Changi

In 2017, Changi established the Pharma@Changi Initiative, the first and largest community in Asia Pacific, among our CEIV Pharma certified community to pursue best practices in air pharma transportation and assess emerging trends and technologies. We continue to grow and expand our community to enhance the hub's pharmaceutical handling capabilities.







































What is IATA CEIV Pharma?

While Good Distribution Practice (GDP) helps raise standards, the IATA CEIV Pharma program is a "GDP+" certification given it encompasses GDPs from around the world, international standards such as WHO Annex 5 and IATA Chapter 17 and national or local regulations as applicable. This ensures excellence in the transportation and handling of pharmaceutical products while at the same time addressing specific air cargo needs.



With Asia poised to account for the largest share of cold chain growth, the IATA CEIV Pharma community in Singapore ensures pharmaceutical manufacturers that they can reply on Singapore's position as the preferred location for the handling, storage and transportation of biopharmaceutical cargo.



Pharma.Aero

Changi Airport is part of Pharma. Aero, an international association consisting of Pharma shippers, CEIV certified cargo communities, airport operators and other air cargo industry stakeholders to achieve excellence in reliable end-to-end air transportation of pharmaceutical shipments. Its mission is to foster collaboration between CEIV certified airport communities dedicated in developing and leading when it comes to handling pharmaceuticals.



Singapore Association of Pharmaceutical Industries

Changi is a proud member of the Singapore Association of Pharmaceutical Industries (SAPI), an industry association representing more than 40 multinational biopharmaceutical companies involved in R&D, manufacturing, and commercialization of innovative medicines in Singapore and is self-regulated by the SAPI Code of Conduct.

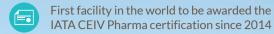
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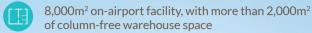
SATS Coolport

SATS Coolport is Asia's first on-airport perishable handling facility dedicated to ensuring cold-chain integrity for a wide range of delicate cargo, including pharmaceuticals. With a well-trained team, quality management system and stateof-the-art facility that adheres to Good Distribution Practice (GDP) guidelines, SATS is proud to be certified by IATA as the world's first CEIV in Pharmaceutical Handling in 2014.

Together with its established air cargo handling and logistics capabilities, SATS provides comprehensive and integrated solutions that meet the most stringent requirements.

Kev Features





18 cold rooms of adjustable temperature zones from -20°C to +25°C, with product segregation capability

250,000 tonnes annual handling capacity

Multi-level unit load device storage with up to 250 airline pallet positions catered for different temperature zones

More than 40 on-site charging points for active containers as well as sea reefers

Includes on-tarmac cool dolly with the following key features:

Internal temperature range of -20°C to 20°C

Fast charging to -20°C within 2 hours

Able to last more than 10 hours of continuous operations on a full charge

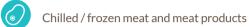
15 temperature-controlled truck docks

Products Handled















SATS Coolport Certifications

- IATA CEIV Pharma and Fresh certifications. SATS also holds the IATA CEIV Li-batt certification.
- HSA Good Distribution Practice (GDP) Certified
- TAPA
- Hazard Analysis and Critical Control Points (HACCP) certification
- Good Distribution Practice (GDP) for Medical Devices
- ISO 9001, 14001
- OHSAS 18001



































dnata Coolchain

Built in 2013, dnata Coolchain is designed to handle high value, high yield perishable items within a dedicated, state-of-the-art cargo handling facility. Encompassing the latest cold storage technologies and designs, the dnata Coolchain offers uncompromised storage solutions and cold chain products to a wide range of temperature-sensitive cargo.



Priority release within 2 hours of aircraft landing for perishable cargo



Operational 24 hours a day, all year round



Web-based monitoring system to facilitate real-time management



14 modular cold storage areas for loose/pallet cargo, each with its dedicated climate control capability



1,400m² temperature-controlled facility with annual handling capacity of 75,000 tonnes (with flexibility to scale)



Individual room space ranging from 26m² to 42m² for customised temperature controlled storage



23 LD7 container holding positions and 165 EU pallet holding positions for loose cargo



784m² of temperature-controlled break-and-build area so temperature-sensitive cargo is not compromised in the process of handling



Temperature controls in individual rooms ranging from freezing -25°C or cold room conditions of 0°C to 25°C



16 charging stations for Envirotainers and CSafe units and top-up service for dry ice



Delivery within Changi Cargo Complex using cool dollies to support an unbroken cool chain for time and temperature-sensitive shipments



2 charging stations at truck docks for shipping containers, reefers



Stuffing/unstuffing of shipping containers for air-sea shipments



Direct from shipper services including conditioning of active containers, labelling, loading, sealing and recording of all shipment milestones.

dnata Coolchain Certifications











Dnata holds three IATA CEIV accreditations: Pharma, Fresh, Li-batt,



17

SATS eCommerce AirHub

In April 2017, SATS unveiled a S\$21 million eCommerce AirHub. The 6,000m² facility houses new state-of-the-art innovations and technology aimed to improve productivity. There is a fully automated mail sortation system that increases the mailbag processing capacity of SATS to more than 1,800 an hour – up from 500 previously. With a direct integration with SingPost's airmail consignment operations and the facility's locality within the Free Trade Zone on the airside, mail sortation operation is streamlined to eliminate the need for mailbags to be transported to and from the hub. The combination of these factors has enabled faster mailbag processing – reducing turnaround time by 50 percent, from six hours to three hours. This allows international e-commerce mail to connect to an earlier flight for faster delivery.



Sing Tran (CAC important transportant transp

SingPost

SingPost has established operations in the Airmail Transit Center (ATC) in Changi Airfreight Centre (CAC) where it houses security screening of mail imports into Singapore and processing of Express Mail Service (EMS), air parcels and registered mails. The four storey ATC building also contains the processing of open transit (mixed shipment) and closed transit (intact mailbags), where SingPost would cut CN38 documents for the transshipped mail. In March 2024, SingPost announced plans to transform itself from a traditional postal organisation into an integrated logistics enterprise that is well positioned to serve the needs of their growing eCommerce customers.

Our Operational Expertise: Express

Changi Airport is home to the major express players – DHL Express, FedEx Express, UPS, and SF Express. Features of their on-airport hubs in the Free Trade Zone include:



Direct access to the airside and freighter parking stands for quick sorting and turnaround of goods



Operate own or partner cargo airlines, as well as leverage on the excellent connectivity provided by other commercial airlines operating in Singapore, to extend their reach

With all major players operating regional hubs in Singapore, businesses and consumers have abundant choices to transport their goods and documents quickly, reliably, and predictably to and from destinations across Asia Pacific and the world. By opting for time-definite services, shipments can reach major cities in Asia Pacific, Europe, and the Americas by the morning of the next working day.

DHL South Asia Hub



S\$140 million facility with floor area of over 23,500m², located within Changi Airfreight Centre, operational since October 2016



1 of 4 strategic hubs in Asia Pacific region, serving mainly the Southeast Asia and Australasia sub-regions



Over 120 weekly flights in and out of Singapore on JV partners and commercial airline partners



Partnership with Singapore Airlines since March 2022 to strengthen US-Asia trade through five B777 freighters, which bring 1,224 tonnes of weekly transpacific capacity through Singapore



Upgraded automated express parcel sorting and processing system in June 2024, increasing handling capacity by 35%

FedEx Express South Pacific Regional Hub



S\$97 million integrated facility of over 26,000m², housing air, ground, and clearance operations under one roof, operational since 2012



Consolidation point for transshipments in and out of Australia, New Zealand, and Southeast Asia



Singapore is also home to FedEx Express' Asia Pacific, Middle East & Africa's regional headquarters since February 2024



More than 50 weekly FedEx flights in and out of Singapore



Fully automated high-speed sorting system that can sort up to 12,000 packages per hour



2 adjacent freighter parking stands



Able to accommodate 280 delivery vehicles

UPS Asia Pacific Regional Headquarters



Two facilities within the airport free trade zone: UPS Hub and Gateway Facility, spanning over 3,000m², and UPS Distribution & Logistics Hub, standing at 400,000ft² in the Airport Logistics Park of Singapore



Establishing operations in Singapore since 1988, UPS has chosen Singapore to be home to its Asia Pacific Regional Headquarters, and has a total of 6 facilities in Singapore today



Over 20 weekly UPS flights in and out of Singapore



Recently expanded their Hub and Gateway Facility by 800m² in March 2023 to cater for growth in volumes with new sortation line, raising handling capacity by 40% to reach 55,000 tonnes per year

S.F. Express Singapore Airside Logistics Centre



Launched Airside Logistics Centre with direct airside access in October 2024 as part of expansion of presence within Singapore and Southeast Asia



Establishing operations in Singapore since 2010, SF Express Singapore has built facilities spanning over 3,000m² in Singapore, equipped with fully automated high-speed sorting system capable of processing up to 2,200 parcels every hour



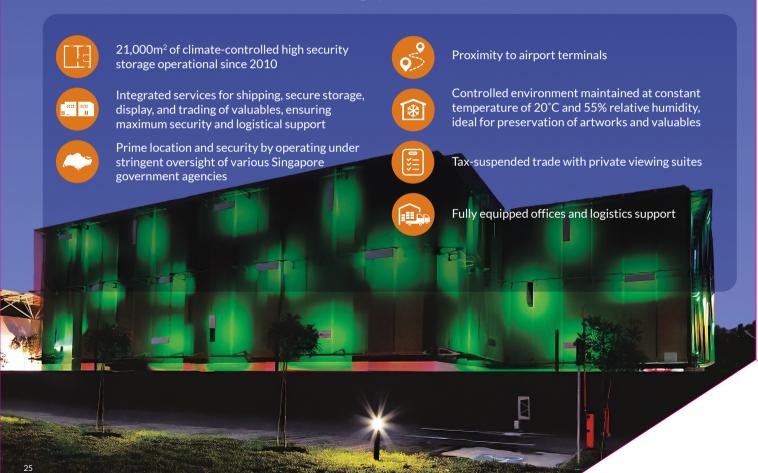
Dedicated daily freighter services



Our Operational Expertise: Valuable Cargo

Changi Airport is equipped with the necessary capabilities to handle your high-value goods with tight security and swift precision.

Le Freeport Swiss Precision Meets Singaporean Safety



Looking Ahead: Towards A Sustainable Changi Air Cargo Hub

Targets:



In line with the targets for domestic aviation outlined in the Singapore Sustainable Air Hub Blueprint, Changi aims to reduce our Scope 1 and 2 emissions by 20% by 2030.



Changi is also striving towards a long-term aspiration of Net Zero emissions by 2050, to be enabled through technological advancement as well as wider availability of green energy in Singapore.



Initiatives:



Sustainable Aviation Fuel (SAF) National Target and Trials

- The use of SAF is a critical pathway for the decarbonisation of aviation and is expected to contribute around 65% of the carbon emission reduction needed to achieve net zero by 2050.
- To kickstart SAF adoption in Singapore, flights departing Singapore will be required to use SAF from 2026. Changi is keen to work with more airline partners to promote the acceleration of SAF uplift in Changi Airport.



Achieving Infrastructure & Operational Efficiencies

- Solar power deployment: Changi has commenced works to install large-scale solar photovoltaic (PV) systems at the passenger and cargo agent buildings. When completed in 2025, this will be Singapore's largest single-site rooftop solar panel system.
- Transitioning ground service equipment to cleaner energy: Changi is working to transit airside vehicle fleet to cleaner energy variants, such as electric vehicles (EV). By 2025, all of Changi's new airside light vehicles, forklifts, and tractors will be electric. By 2040, Changi targets for all airside vehicles to run on cleaner energy.



Digitalisation and Technology

• Changi is working on digitalisation of existing operational processes to expedite cargo collection and lodgment, so as to optimise resources and reduce fuel burn.



Reducing Waste, Building Circularity

• Changi is working with tenants and partners to upgrade recycling infrastructure at CAC and pursue recycling initiatives.



Building a Vibrant and Collaborative Air Cargo Community

Launched in mid-2020, the Changi Air Cargo Community System (ACCS) is a neutral and open information sharing system that aggregates data from all parties involved in the cargo handling process, so as to enable collaboration and digitalisation across the value chain.



Key outcomes:

- Connect air cargo stakeholders through a community digital infrastructure to move away from inefficient bilateral information exchange
- Break down industry silos and enhance stakeholders' collaboration through community wide applications
- Improve overall hub competitiveness through higher efficiency, reliability and connectivity

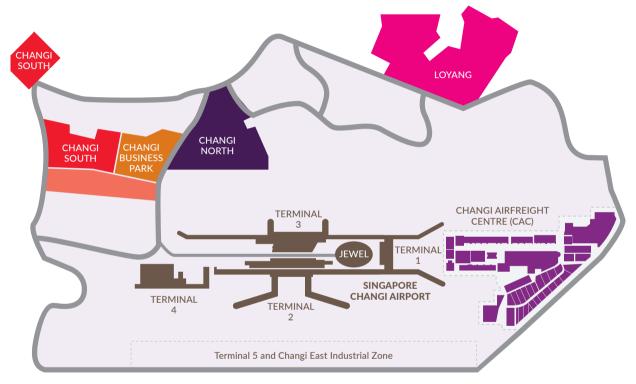


One such use case under ACCS is Truck Dock Slot Booking, a community-wide application to even out cargo lodging and collection to and from airfreight terminals for ground-handlers, freight forwarders, and truckers, with the ultimate goal of optimising resources, increasing visibility, and enhancing ground efficiency through reduced truck waiting times.

Changi is constantly on the lookout for more opportunities to collaborate with the community to improve operational processes through process innovations and digital technologies.



The Air Cargo Hub that Takes Your Business Further



- Logistics Warehousing (local distribution and exports)
- Research & Development / Aerospace Engineering
- Light Manufacturing and Logistics Warehousing
- Knowledge-based Industries: Aviation / Aerospace / General Industry Logistics

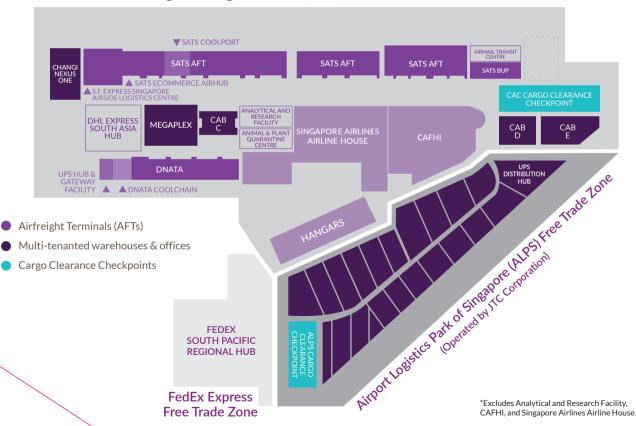
Your success is important to us. Which is why we offer cargo and route development programmes support to help you identify new growth opportunities and sharpen your competitive edge as you serve global clients from Singapore.

An Air Cargo Hub Trusted by the World's Biggest Names

Over 70 hectares of contiguous Free Trade Zone, Changi Airfreight Centre and Airport Logistics Park of Singapore offer shippers and third-party logistics companies a unique opportunity to establish Regional Distribution Centres or Regional Fulfillment Centres.

- Over 350,000m² of warehouse capacity
- Reduction in handling costs and cycle time

Changi Airfreight Centre (CAC) Free Trade Zone*



Our Future Capacity Development

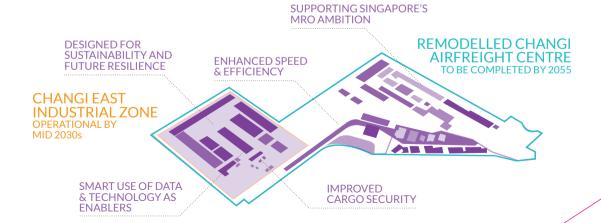
Changi East Industrial Zone (CEIZ) is a dedicated airport industry zone set aside within the Changi East airport development to provide infrastructure for the longer-term development of air cargo, maintenance, repair & overhaul activities (MRO), aviation support facilities and fuel farm at Changi Airport. CEIZ is slated to be operational by mid 2030s.

Together with the remodelled Changi Airfreight Centre (CAC), both CAC and CEIZ would make up Changi's future air cargo hub spanning over 150 hectares of land. The total annual handling capacity will also increase from the current 3 million tonnes per annum to 5.4 million tonnes per annum. Both sites will be under the same contiguous Free Trade Zone area, with airside access.

Developing The Future Air Cargo Hub

From annual handling capacity of

3 MILLION TONNES TO 5.4 MILLION TONNES



Our Awards

Thank you for making Changi Airport one of the world's leading international cargo hubs in 2023 and beyond.



35

