

Singapore Changi Airport.

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.



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Dedicated cargo developments: Changi Airfreight Centre (CAC)

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

1. ...



No night flight restrictions



Round-the-clock efficient checkpoint cargo clearance operations



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)



shipments

(Source: World Bank 2023)

competence

DHL 2024 GLOBAL CONNECTEDNESS INDEX



(Source: DHL 2024)

An Integrated Logistics Gateway Designed to move cargo like clockwork round the clock.

of the world's largest airfreight All Top 25 forwarders have established major operations in Singapore.





EUROPE

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

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**

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
- Key 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



As of October 2024



Our Family of Cargo Airlines

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

As of October 2024

- China Airlines
- 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
- Rava Airways
- SF Airlines
- Shandong Airlines
- Sichuan Airlines
- Silk Way West Airlines
- Singapore Airlines
- United Parcel Service

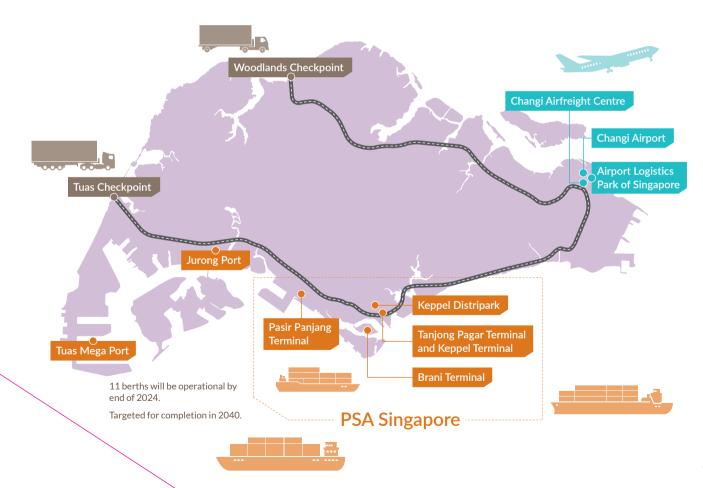
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Our Seamless Multimodal Connectivity

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

multi-modal solutions

Unparalleled air connectivity and





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.



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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

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.



SATS Coolport

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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.





First facility in the world to be awarded the IATA CEIV Pharma certification since 2014

8,000m² on-airport facility, with more than 2,000m² of column-free warehouse space

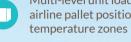
18 cold rooms of adjustable temperature zones from -20°C to +25°C, with product segregation capability

250,000 tonnes annual handling capacity



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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





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



Cool chain cargo given priority to be unloaded from and loaded into aircraft



Using on-tarmac chillers for air-air transshipment of cool chain cargo with short turnaround time



Cargo handled and stored in temperature-controlled facility





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



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HOURS

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

dnata Coolchain Certifications





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



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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.



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.





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 guickly, 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

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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



FedE

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



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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





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

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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

SF RI



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



21,000m² of climate-controlled high security storage operational since 2010



Integrated services for shipping, secure storage, display, and trading of valuables, ensuring maximum security and logistical support



Prime location and security by operating under stringent oversight of various Singapore government agencies



Proximity to airport terminals



Controlled environment maintained at constant temperature of 20°C and 55% relative humidity, ideal for preservation of artworks and valuables

Tax-suspended trade with private viewing suites

Fully equipped offices and logistics support

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.

NET ZERO by 2050

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.

First Green Mark Platinum Positive Energy Building in Changi Airport



Changi Nexus One

- Newly launched in October 2024, this refurbished air logistics facility offers 8,000m² of warehousing space with direct airside access
- BCA super-low energy building that can generate more renewable energy than it consumes
- First building at Changi to be granted both Green Mark Platinum and Green Mark Platinum Positive Energy Building (PEB) certifications by BCA
- By 2025, solar photovoltaic (PV) panels to be installed



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



Spotlight: Truck Dock Slot Booking

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.



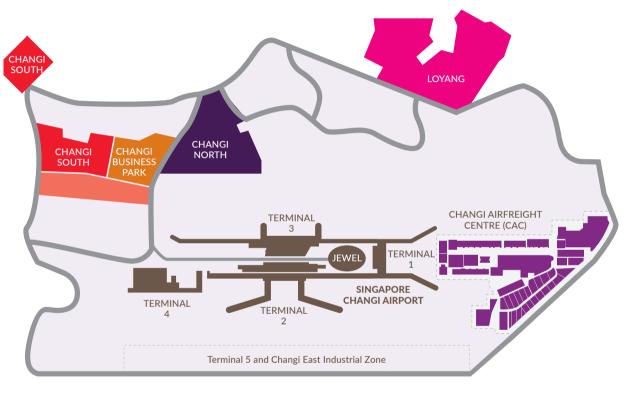
Flight information system

Caroo

Ground handler Ground Handling Agent submits truck dock capacity by time slot and type.

Dataexchange

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

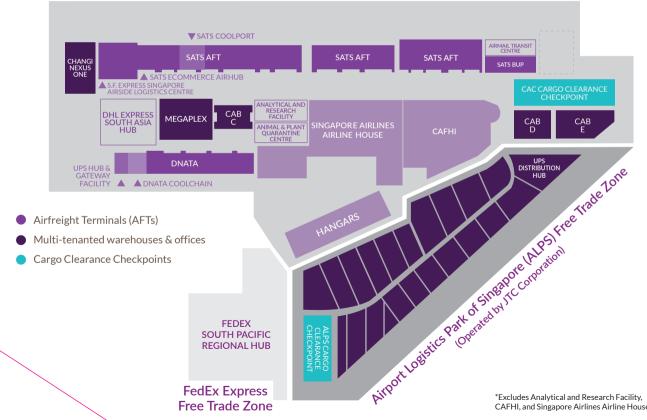
Your success is important to us. Which is why we offer cargo and route development programmes support to help you identify new growth opportunities and sharpen your competitive edge as you serve global clients from Singapore.

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*



CAFHI, and Singapore Airlines Airline House.

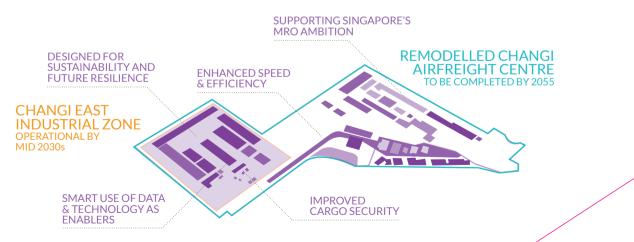
Our Future Capacity Development

Changi East Industrial Zone (CEIZ) is a dedicated airport industry zone set aside within the Changi East airport development to provide infrastructure for the longerterm 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.



Airport of the Year 2023

Air Cargo Week World Air Cargo Awards

International Cargo Airport of the Year STAT Trade Times Award for Excellence in Air Cargo

