

A large white Boeing 747-400 cargo aircraft is parked on a tarmac. The aircraft features the Singapore Airlines Cargo livery, with "SINGAPORE AIRLINES CARGO" written in black on the side of the fuselage. The tail fin is dark blue with a gold and white logo. The aircraft is positioned on a dark asphalt surface with yellow ground markings. In the background, there is a green field and a distant cityscape under a cloudy sky.

Singapore Airlines Cargo and the Environment

Our Environmental Policy



ENVIRONMENTAL POLICY

Singapore Airlines Cargo is dedicated to carrying freight across the world. We take a long-term view in the sustainable development of our air transportation and related businesses. This includes the broader responsibilities to the worldwide communities that we serve, and recognition that our operations take into account the preservation of the environment.

We are committed to continual improvement in environmental performance and will take appropriate measures to address key areas of environmental concern.

We will:

- communicate this policy to all staff and provide training where applicable to ensure that every employee is capable of fulfilling his or her environmental responsibility.
- be open about our environmental affairs and will provide appropriate information as requested by interested parties.
- monitor changes in environmental legislation, audit our compliance and cooperate fully with environmental regulatory authorities.
- establish an environmental action programme to achieve the Company's objectives in the management of environmental issues relating to the use of water and energy, emission to atmosphere, effluent discharges, waste management, noise and relations with key suppliers.

A handwritten signature in black ink, appearing to read "Tan Kai Ping".

Tan Kai Ping
President

1 March 2010

- Policy is posted on company intranet.
- Hard copies are posted at various locations around the company.
- All SIA Cargo Line Stations have copies displayed and are subject to audit verification.
- Reviewed regularly to ensure continuing relevance.

Background

A key part of the global village

- **Airlines are a safe, global mass transit system**
- **We connect goods to markets**
- **Aviation supports:**
 - US\$3.5 trillion in economic activity
 - 32 million jobs

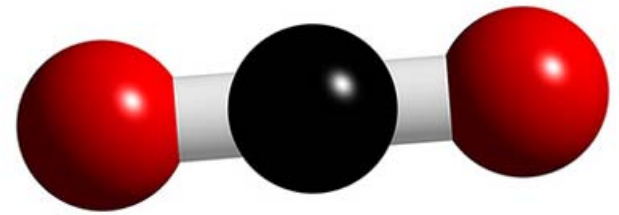


The environmental cost

- **Climate change is a challenge for all industries**
- **Aviation contributes 2% of global CO₂ emissions**



Aviation's contribution to greenhouse gases



- A tonne of CO₂ is a tonne of CO₂
- Other emissions at high altitude maybe less harmful than previously thought
- Aviation represents 3% of the world's climate change impact
- Science is unclear about the effects of contrails and cirrus clouds

Aviation's strong track record

- **Over the last 40 years**
 - Soot has been eliminated
 - Noise reduced 75%
 - Fuel efficiency improved 70%



Singapore Airlines Cargo's strong track record

- **Singapore Airlines Cargo's target is for a further 25% improvement in fuel efficiency by 2020**
- **New aircraft will help**
 - Average age of SIA Cargo aircraft is less than 9 years
 - The B747-400 is one of the most fuel-efficient freighters
 - SIA Cargo is evaluating even more fuel efficient aircraft



Growing carbon footprint

- **SIA Cargo acknowledges that it is not acceptable for any industry to have a growing carbon footprint.**



Growing carbon footprint

- **SIA Cargo acknowledges that it is not acceptable for any industry to have a growing carbon footprint.**
- **We are committed to a comprehensive reduction in emissions**



Goals and Strategies

Our vision

- **Is for carbon neutral growth**
- **Leading to a zero carbon emissions future**
- **We can only achieve this with cooperation across the industry**
 - Airlines, manufacturers, airports & air traffic management
- **We need governmental support**



Carbon neutral growth



- Means that we continue to meet the demand for air freight growth
- But we stop *growing* our emissions



Actual Emission Figures

Freighter Fleet

Fuel Productivity & CO ₂ Emission	Change	2009-10	2008-09	2007-08
Fuel Consumption (million AG)	-21.1%	158.23	200.43	243.61
Fuel Productivity (LTK/AG)	3.9%	17.90	17.22	17.34
CO ₂ Emissions ('000 tonnes)	-21.1%	1492.12	1,890.08	2,297.34
CO ₂ Emissions (kg/LTK)	-3.6%	0.53	0.55	0.54

Actual Emission Figures

Passenger Fleet (Bellyhold)

Fuel Productivity & CO ₂ Emission	Change	2009-10	2008-09	2007-08
Fuel Consumption (million AG)	-9.6%	1134.83	1225.30	1219.11
Fuel Productivity (LTK/AG)	3.9%	10.29	9.90	10.20
CO ₂ Emissions ('000 tonnes)	-9.6%	10,701.84	11,837.87	11,496.64
CO ₂ Emissions (kg/LTK)	-3.2%	0.92	0.95	0.93

What are the concerns?



- **Climate Change**
- **Local Air Pollution**
- **Aircraft Noise**
- **Land Use**



Singapore Airlines Cargo's Five Pillar Strategy

- **Technology**
 - Airframe, engine, aircraft variants
 - Cleaner bio-fuels, new energy sources
- **Aircraft operations**
 - Drive for maximum efficiency & minimum weight
- **Infrastructure**
 - Improve air routes, ATM & airport procedures
- **Economic instruments**
 - Incentives to finance technology Research & Development
 - Carbon offsets & trading



■ Environmental Partnerships

USE OF ECO-FRIENDLY MATERIALS

- ✓ We are *already* using plastic sheets that are made from recycled resin.

Evaluating the use of biodegradable plastic sheets, although cost difference is estimated at about 4 times.



■ Environmental Partnerships

INDUSTRY INITIATIVES

- ✓ Reduction in paper wastage through IATA's eFreight Programme
 - Program roll-out since Nov 2007; progressive implementation.
 - Electronic of AWBs save weight on board the aircraft, leading to lower fuel burn and lower emissions.
 - With complete implementation, reduction in paper wastage: estimated 3 Million sheets of paper saved by SIA Cargo per year: this translates into 360 mature trees saved *in just one year.*



SIA Cargo in partnership to enhance wildlife conservation

SIA Cargo and Wildlife Reserves Singapore (WRS) are jointly promoting wildlife conservation under a three-year partnership agreement that began on Feb 1.

“Besides boosting the population of animals on the endangered list, wildlife conservation supports the company’s policy to promote a greener world,” SIA Cargo Senior Vice-President (Sales & Marketing) Tan Tiow Kor said.

As WRS’ partner in the freightage of wildlife to zoos, globally, to boost the gene pool of endangered animals, SIA Cargo sent off its first shipment on Mar 20.

Singapore Zoo’s two local-born chimpanzees flew SQ478 to Mystic Monkeys and Feathers Zoo in Johannesburg, South Africa.

Said Singapore Zoo Assistant Director for Zoology Biswajit Guha: “With SIA Cargo’s outstanding track record of serving more than 73 cities in 38 countries, this partnership promises to accomplish further headway in boosting the population of endangered species through our animal exchange programme with global zoo networks.”

Added Mr Tan: “The exchange of animals with other reputed zoos in the

world will add to the varied attractions at the Singapore Zoo and further enhance it as a premier and exciting destination for Singaporeans and tourists alike. Our extensive route network enables us to ship the animals to major cities in the world and we have a successful history in the safe carriage of animals.”

Singapore Zoo has a very successful captive breeding programme, helping boost the population of some of the most critically endangered animals. Last year alone, the Zoo successfully bred 93 animals, including endangered animals



Makhulu and Manzi.

‘Besides boosting the population of animals on the endangered list, wildlife conservation supports the company’s policy to promote a greener world.’

— Mr Tan

such as the douc langur and pygmy hippopotamus.

Animals which have been relocated to boost the gene pool of the species globally included Sang Raja, the Singapore-born Asian elephant, to Cologne Zoo in September 2004; and Hsing Hsing, Ah Meng’s son, who was sent to Perth Zoo in September 1983.

In October 2005, four chimpanzees were sent to Arignar Anna Zoological Park in India.

With freightage, travel duration for animals is almost halved and SIA Cargo’s fleet of 14 B747-400 freighters ensures safe and timely transfer of the animals.

In addition to the travel duration, the partnership would allow WRS to allocate their resources more efficiently. — Courtesy SIA Cargo. 🐵

Environmental Partnerships

COMMUNITY OUTREACH

- ✓ SIA Cargo is committed to being a good corporate citizen, and supporting the communities in which we operate.



- ✓ Our adopted charity is the Henderson Student Care Centre, part of the Singapore Children's Society.

- ✓ We organised a field trip for the children to the Sustainable Singapore Gallery.



Accolades

Raising The Bar

- Singapore Airlines Cargo was named the **Best Green Service Provider** (Airline) at the 2009 Asian Freight & Supply Chain Awards (AFSCA).
- And in 2010, we did it again!



- But we must seek continuous improvement



Raising The Bar



As a supplier to Greencarrier during 2009, your company

Singapore Airlines Cargo

has been evaluated based on environment, quality and traffic safety and your company is classified:

Green supplier - a well approved supplier for Greencarrier Sweden AB 2009

Managing Director, Greencarrier Sweden AB

Niklas Olsson



Environment Manager, Greencarrier Sweden AB

Patrik Andreasson

Green supplier: Well approved supplier.

Yellow supplier: Approved supplier, ought to intensify their environmental work.

Red supplier: For a continuing cooperation the supplier is expected to intensify their environmental work to be classified as an approved supplier at the next year's evaluation.



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Future and Vision

Vision

- **Aggressive reduction in Singapore Airlines Cargo's carbon footprint through the Five Pillar Strategy**
- **Zero emissions by 2050**



We are key part of the global village

- We support environmentally favourable economic measures
- We support an effective and transparent emissions trading system
- We have adopted the following:
 - Improved technology
 - Efficient operations
 - Ecological partnerships





Questions?



Contact Us

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Visit www.siacargo.com to learn more



Thank you!