
SWISS

The integration of SWISS – a success story

Completing the integration of Swiss International Air Lines into the Lufthansa Group in 2007 was a key milestone: Switzerland's national airline has been a fully consolidated member within the Lufthansa affiliation since July 1, 2007. SWISS climbed to cruising altitude and can look back on the most successful year in its history. This evolution was boosted considerably by the company's successful integration into the Lufthansa Group.



SWISS – on course in an environmentally-aware manner



The commitment to deal with the environment in a responsible way is an integral part of corporate culture at SWISS and determines the way we do business. In these pages, we will illustrate with a number of examples how we meet our responsibility toward the environment and society. In doing this, we must grapple with the fact that the demands made by different interest groups can be contradictory. For example, protecting certain geographical areas from aircraft noise can result in longer flight routes and thus more CO₂ emissions. In many cases, political decisions have an effect on our course of action in issues concerning environmental protection. What appears sensible from SWISS's perspective can lead to disadvantages elsewhere.

A company needs economic success to be able to invest in new technologies which help to reduce environmental burdens. Building on the basis of the economic results it has achieved, SWISS will replace its present Airbus A330s with more advanced versions of the type in the years ahead, and thus reduce further its emissions of noise and pollutants.

Christoph Franz

Chief Executive Officer, Swiss International Air Lines

SWISS at a glance		2007	2006	change
Operating business				
Revenue	million CHF	4,895	4,153	+ 17.9%
EBIT	million CHF	571	231	+ 147.2%
Employees		7,160	6,441	+ 11.2%
Transport performance				
Fleet	aircraft	74	70	+ 4
Destinations		71	69	+ 2
Passengers	million	12.2	10.8	+ 13.2%
Freight carried	million tkm	1,028	1,064	- 3.4%
Seat load factor	percent	80.2	79.8	+ 0.4 PP
Freight load factor	percent	84.7	85.5	- 0.8 PP
Environment				
Fuel consumption	million tonnes	1.13	1.01	+ 10.4%
Specific fuel consumption, passenger transportation (actual load factor)	liters/100 pkm	3.7	3.8	- 2.5%
CO ₂ emissions absolute	million tonnes	3.56	3.19	+ 11.6%

Our business

SWISS remains SWISS – also with Lufthansa

After meeting the challenges of establishing and consolidating itself, SWISS finally reached its cruising altitude in 2007, just six years after its foundation. The public authorities at the federal and cantonal levels and several renowned corporations for whom maintaining Switzerland's worldwide links to important markets was of particular importance supported the establishment of a national carrier with their equity stakes. During the reporting year, SWISS was able to create about 700 new jobs and expand its route network. In 2007, SWISS served 71 destinations on four continents and carried 12.2 million passengers aboard its fleet of 74 aircraft.

Today, the company can fulfill its task of connecting Switzerland with Europe and the world even better.

In its home market, SWISS must not only secure its position against competitors, but it also has to do its utmost to preserve a competitive framework of conditions in Switzerland. Zurich Airport and SWISS, which handles 55 percent of the traffic flows there, form a favorable system partnership. As they pursue the same interests to a great extent, they share important tasks. Both companies operate in a field of tension: Economic requirements and passengers' demands for the densest route network possible are contrasted by the need for peace and quiet on the part of people living in the surrounding area and by the resulting calls to restrict flight operations.

SWISS expects and requires that Switzerland's Federal Council (Bundesrat) fulfill its responsibility for national air transport and create a framework of conditions for the country's most important airport that will allow future growth in line with demand for both the national carrier and Switzerland's civil aviation.

Framework of political conditions

Much ado about aircraft noise on the wane

SWISS counts on innovative technologies as the best means to reduce aircraft noise. In the past 20 years, the area surrounding Zurich Airport that is heavily affected by noise has shrunk by nearly two-thirds – despite an increase in aircraft movements of almost 50 percent. This positive development in decoupling noise is continuing. Therefore, more aircraft do not automatically mean more noise.

SWISS takes the concerns of the people living around its home airport very seriously. As a concession to this population, SWISS has agreed to an extension of the ban on nighttime flights to seven hours in the upcoming operating regulations for Zurich Airport. No other airport with intercontinental hub operations worldwide knows the kind of absolute ban on nighttime flying already in effect in Zurich today.

More difficult operating conditions

In the wake of the restrictions on arriving traffic from the north put in place by Germany in 2003, Zurich Airport has had to organize its operations differently. Since the airport's start of operations more than 50 years ago, landings had taken place as a rule from the north. The two longest runways 14 and 16 are available for this purpose; both are equipped with instrument landing systems, allowing approaches even under the most difficult conditions of low visibility. The prerequisites for this are an absence of obstacles and a flat topography. About three-quarters of takeoffs took place toward the west, the remainder toward the south, or in rare cases toward the north or the east, when easterly winds prevailed.



It is above all the shifting of approach and departure routes that has led to significantly more people being more strongly exposed to aircraft noise in the areas closely surrounding the airport since 2005 – despite that fact air traffic has not increased.

Current restrictions at a glance

Weekends and public holidays: Approaches above German territory are only permitted from 9 a.m. to 8 p.m. on Saturdays, Sundays and German public holidays.

Workdays: No approaches above southern-German areas between 9 p.m. and 7 a.m.

No departures over German territory: Without exception, aircraft taking off toward the north must change course 2 miles before flying over German territory, i.e. within Switzerland.

Exceptions: Landings from the north are only permitted when there is insufficient visibility for approaches to runways 28 and 34 or insufficient length (under certain weather conditions) for approaches to runway 28.

No approaches before 9 a.m.

This operating concept, which grew in tandem with the airport's development, can no longer be applied under the politically-motivated restrictions currently in effect, especially not during the all-important operating hours early and late in the day. Just as consequential as these extensive operational restrictions is the fact that the lessening of a relatively light burden on the sparsely populated areas north of the airport and in Germany has led to a marked increase in the burden on the large areas with tens of thousands of inhabitants to the south and east of the airport. This in turn has generated new demands for further operational restrictions at SWISS's home base.

Due to these restrictive injunctions, approaches to runways 14 and 16 are no longer permitted during the most important operating hours. In the morning, approaches between 6 and 7 a.m. must therefore be flown from the densely populated south. In the evening, landings after 9 p.m. take place on runway 28 with approaches from the east. On weekends and German public holidays, this regulation even applies between 6 and 9 a.m., and again from 8 p.m. onwards.

A seven-hour ban on nighttime flying

Operating hours at Zurich Airport have been shortened in several steps. Just a few years ago, the ban on nighttime flying was in effect from midnight to 5 a.m. (6 a.m. for takeoffs). In an initial step, it was extended by half an hour in the morning. Under new, preliminary operating regulations, the ban on nighttime flying is now applied between 11 p.m. and 6 a.m. To reduce delays of scheduled flights, a tolerance of 30 minutes is granted in the evenings. On the condition that the airport can be fully used during the remaining operating hours between 6 a.m. and 11 p.m., SWISS agreed to extending the nighttime rest period in the interests of those living in the surrounding area.

In its role as home carrier, SWISS is especially affected between 6 and 7 a.m.: During these hours, the majority of long-haul flights, especially those from the Far and Middle East, arrive in Zurich. These flights bring thousands of passengers who make connections during the first morning bank of departing European flights. The first flights to European points leave Zurich between 7 and 8 a.m., which are departure times that need to be offered for business travelers within Europe. On these flights, SWISS and other airlines can not do without connecting passengers from long-haul flights. And on long-haul flights, these passengers are needed, in turn, to ensure profitable operations.

Referendum called for a nine-hour ban on nighttime flying

In November 2007, the population of the Canton Zurich voted on a referendum whose main demand was an extension of the ban on nighttime flying from seven to nine hours and a limitation of flights to 250,000 a year. Despite a spirited campaign, the voters rejected these demands. On the other hand, a counterproposal made by Zurich's cantonal council (the canton's parliament) was accepted by a majority vote: It established that as soon as the threshold of 320,000 annual takeoffs and landings at Zurich Airport is reached, the cantonal government must propose measures to relieve the burden on the population.

Together with this counterproposal, the Zurich Aircraft Noise Index was also accepted. It calls for limiting measures when 47,000 people living close to the airport are strongly affected by noise. In both cases, the consequences could entail further operating restrictions. In the context of the noise index, SWISS considers it highly problematic that there is still disproportionately high construction activity in noise-sensitive areas due to a lack of urban planning guidelines. Thus, the number of



At a distance of just over one kilometer from runway 16, new apartments for about 6,000 people are being built.

people strongly affected by noise will rapidly reach the 47,000 mark – even without any increases in air traffic. Once this threshold value has been reached, the Zurich government will propose measures within its own competence or support measures at the federal level.

Further political consequences in Switzerland

In the course of the past four years, the population's resistance to the airport's operations has increased. Further initiatives are being discussed at the political level. Some of these are likely to be voted on in Canton Zurich in the course of 2009.

- One administrative initiative submitted by approximately 70 communities in Canton Zurich demands a limitation to 320,000 aircraft movements, but also a ban on nighttime flying of eight instead of the current seven hours.
- The administrative initiative signed by the Protection Association of the Population Around the Airport and 42 communities strives for a moratorium on runway construction. According to this proposition, changes to the existing runway system of Zurich Airport would no longer be possible.
- Submitted in April 2007 with 8,400 signatures, the so-called "distribution initiative" demands a fair distribution of movements to the four points of the compass instead of channeling arrivals and departures. As far as German restrictions and the infrastructure of existing runways permits, all runway directions should be used for arrivals and departures under a principle of rotation and during pre-defined time periods. This would accomplish a fair balance of the airport's burdens and advantages, the initiators maintain.

Difficult planning for the decades ahead

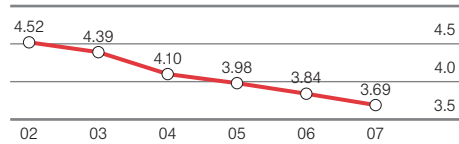
Defining a framework of conditions for civil aviation for the next 20 to 25 years is the competence of the Federal Government, while the cantons affected have the right to a say in certain areas. The Aviation Infrastructure Plan is meant to create a reliable basis for future planning, construction and operations, for Zurich Airport as well.

However, the interests among those affected and the airport operators are different and controversial. In the operational variants under discussion, the operating restrictions resulting from the German enforcement regulations play a decisive role. All the cantons participating in the process underline the airport's indispensable economic advantages and are willing to make concessions to allow for a measured development of Zurich Airport in future. Nevertheless, their objections to the possible operational variants veer in the opposite direction on a number of key points. For SWISS as the airport's main user, it is of central importance that safe, robust and punctual flight operations remain possible and that the hourly capacity of the runway system can be increased to competitive levels again. In the final analysis, the Federal Government must make – by 2010 – a decision that concedes a framework of political conditions to the airport and SWISS which allow demand-based development to continue.

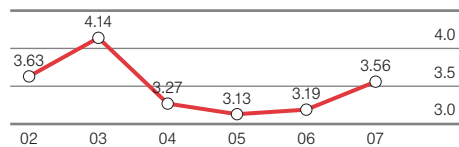
Environment

Responsible conduct with regard to the environment as a part of SWISS corporate culture

Specific fuel consumption in passenger operations¹
in liters/100 passenger kilometers



Absolute CO₂ emissions of the SWISS fleet¹
in million tonnes



Methodology of calculation

For the first time, the figures for SWISS have been integrated into those of the Lufthansa Group. For this purpose, slight changes in the methodology of calculation had to be made.

Unlike its previous practice, SWISS has shown its specific kerosene consumption for passenger and freight operations separately since 2007. It amounts to 3.7 liters per 100 passenger kilometers transported and 300 grams (940 grams of CO₂) per freight tonne kilometer transported. At SWISS, freight accounts for about one-third of the total weight transported.

Four-Pillar Strategy

In accordance with the entire air transport industry, SWISS advocates a continuous reduction of greenhouse gases. This commitment is based on the following four pillars:

Technological progress: Low-emissions engines, more lightweight aircraft, improved aerodynamics.

Improved infrastructure: More efficient use of airspace and airports.

Operational measures: Shorter and more direct flight routes, fuel-saving procedures for approach and departure.

Economic measures: Option of voluntary CO₂ compensation.

Air transport is not an end in itself, but a reflection of the human need for mobility. And this need continues to grow. But as mobility increases, the effects on the environment increase as well. All modes of transport together produce about 17 percent of CO₂ emissions worldwide. Air transport alone is responsible for only 2.2 percent of the worldwide CO₂ emissions caused by human activities.

Aviation is on a growth trajectory unequaled by that of any other mode of transport. Despite this, it has managed to decouple the growth in kerosene consumption from that in traffic volumes.

A mini-course in air transport and climate

The CO₂ emitted by air transport has the same effect as CO₂ from any other source. The way in which CO₂ affects the environment is also the same, independent of whether the emissions occurred on the ground or at cruising altitudes. Once released into the atmosphere, CO₂ continues to have its effect for about 100 years.

The combustion of kerosene also produces other gases, in particular nitrogen oxides and water vapor. The effect of these gases is highly complex. They can have a cooling or a warming effect on the climate. Their generation depends on the ambient temperature, air humidity and pressure. Their influence on the climate is scientifically far less thoroughly researched than that of CO₂. However, the most important difference is the duration of effectiveness. Nitrogen oxides and water vapor have a climatic effect for just a few days or months.

Air transport is one of the most innovative industries. More lightweight materials, improved aerodynamics, modifications to existing engines, the development of quieter and lower-emission engines, and many other optimizations have helped to reduce specific kerosene consumption (consumption per passenger or freight unit transported) by about 20 percent over the last ten years. Progress has also been made with regard to noise emissions: The surface of the noise-burdened area² surrounding Zurich Airport has been reduced by two-thirds over the last 20 years – despite an increase in aircraft movements.

Over the last six years, SWISS has reduced its fuel consumption per 100 passenger kilometers transported by 17 percent to only 3.7 liters. This is one of the lowest values in the industry. In addition to many small measures, the most significant contributions to this improvement have come from high aircraft utilization rates and the replacement of older Boeing MD-11 aircraft by advanced Airbus A340s.

1. Lower fuel consumption thanks to technological progress

Investments in technological progress also pay off for the environment. SWISS takes advantage of existing opportunities to reduce fuel consumption by saving weight aboard its aircraft. For example, reducing the weight of the Airbus fleet deployed in Europe by just 1 kilogram per flight results in a reduction in CO₂ emissions of 16 tonnes per year.

¹ Freight and passenger emissions have been calculated separately for the first time since 2007, analogous to those of the Lufthansa Group. 2002 – 2006 inclusive of freight.

² 60 dB Leq (equivalent continuous noise level during the day, 6 a. m. – 10 p. m.).

Thanks to its economic success, SWISS will be able to make further investments in the modernization of its fleet over the years ahead. The new Airbus A330-300s that will replace the current A330-200s are more economical to operate, consume less fuel and offer more seats. Compared with the A330s currently in use, CO₂ emissions will be reduced by a further 13 percent per passenger carried.

A particularly innovative measure implemented by SWISS is the installation of significantly more lightweight high-tech seats made from carbon fibers on all aircraft in its regional and European fleets. The project was completed in spring 2008. The new seating improves comfort levels for passengers and saves weight at the same time. This modification alone lowers CO₂ emissions by 800 tonnes year by year and demonstrates clearly that economic and ecological considerations can be brought in line with customer benefits.

A further example on the aircraft in the SWISS regional fleet is the removal of little-used footrests, which are installed as standard equipment by the manufacturer. The goal is always to strike a sensible balance between customer comfort and weight reduction.

2. Smart flight management saves fuel

Operational measures and far-sighted planning in flight operations help to use fuel sparingly. For example, SWISS pilots do not fly at maximum speed on European flights during the cruising phase. Additionally, a sophisticated flight management system helps to adapt altitude and speed optimally to prevailing conditions, such as high-altitude winds and temperature, and to the aircraft's current weight.

An additional system analyzes planning data for forthcoming flights, such as weather, winds, traffic on the route, routes assigned and loads. Based on this data, the quantity of kerosene needed can be calculated accurately. Thus, the system gives pilots reliable information for fueling. This is of great importance because every excess kilo of fuel increases consumption. For example, carrying 1 tonne of kerosene on a long-haul flight requires an additional 300 kilograms of kerosene.

3. Too many detours in airspace

The EU has long regulated a large number of economic and political areas in a standardized manner. However, for air transport, one of its most important areas, uniform air traffic management within Europe's heavily-used airspace still appears to be a distant vision. Almost all states control their own airspace, which results in enormous coordination efforts and impedes efficient air transport. In Europe alone, the realization of the Single European Sky would help avoid three times the quantity of CO₂ emissions caused by SWISS each year.

The optimization of European air traffic control would be the largest and most efficient climate protection project in European aviation. That it has not yet become reality is due not to a lack of technical conditions, but above all to a lack of political will.

Political decisions that give priority to widespread – rather than local – public interests are also called for with regard to the situation at Zurich Airport. As already explained in detail, the framework of political conditions and unilateral regulations hinder efficient, punctual and environmentally protective operating processes. The current restrictions placed on traffic flows approaching Zurich Airport from a northerly direction add an average of five minutes to the approach phase. As a result, every aircraft affected consumes an additional – and avoidable – 200 to 300 kilograms of kerosene.

Over an entire year, this results in more than 9,000 tonnes of additional CO₂ emissions. Put differently: Lessening the noise burden for a relatively small number of people not only leads to a disproportionate additional noise burden on tens of thousands of people living in the area close to the airport, but also leads to a massive increase in additional greenhouse gas emissions – a calculation that makes no sense.



4. CO₂ compensation – a voluntary contribution from customers

By paying a voluntary supplement to the ticket price, passengers can now compensate the CO₂ emissions associated with their air travel. Thanks to a collaboration with the Swiss nonprofit foundation “myclimate,” the cost of compensating for the quantity of CO₂ each passenger generates in the course of a flight can now be calculated. The sums paid by passengers are invested by “myclimate” in projects selected by SWISS. The foundation ensures in turn the implementation of the selected projects avoids the same quantity of CO₂ emitted in flight. SWISS finances only projects that meet the highest international standard currently available, the WWF Gold Standard. Consequently, these projects must fulfill strict ecological and social requirements. While this increases the price of the compensation, it also ensures a sustainable use of funds. For example, the cost of compensation for a return flight between Zurich and New York is CHF 58. The CO₂ calculator offered by SWISS is based on the analysis of more than 60,000 SWISS and Lufthansa flights.

Social responsibility

A commitment to society

Following the demanding years of establishing the company and concentrating all forces on its economic turnaround, SWISS intends to assume increasing entrepreneurial responsibility for social issues once again. Together with its employees, SWISS is active in the areas of social responsibility, culture and sports.

A “SWISS House” in Dar es Salaam

A representative example of the airline’s social commitment is a joint project in Tanzania on the part of SWISS, its employees and its customers. The long-established children’s welfare organization which is supported by SWISS personnel realized yet another project benefiting children in the “third world” with support from passenger donations and SWISS. In November 2007, the “SWISS House,” one of 13 new houses for a total of 120 orphaned children, was handed over to its young occupants in Dar es Salaam. In addition, the SWISS Staff Foundation looks after the children’s livelihood and care. A similar SWISS House is planned at the SOS Children’s Village in Phuket, Thailand.

Music, film, the arts and sports

SWISS concentrates its sponsoring activities on the renowned international cultural and sporting events of the “Top Events in Switzerland” association, which are also used as hospitality platforms for specific customer groups. They include the Montreux Jazz Festival, the Locarno International Film Festival, Art Basel and the Omega European Masters. In addition, SWISS cooperates with the Zurich Opera House.

Furthermore, SWISS concentrates on selected image and commercial partners. These include, for example, the popular world number one in men’s tennis Roger Federer and its partnership with Baselworld, the world’s leading watch and jewelry fair. Further partners are institutions such as the World Economic Forum (WEF) and the renowned St. Gallen University.

In the foreground of all these activities is the goal to invest in long-term, sustainable partnerships and to live out the corporate values of SWISS – such as “personal care,” “quality in every detail” and “typical Swiss hospitality” – by means of these cooperations.

Getting along well with neighbors

As one of the region’s largest employers, SWISS also bears social and civic responsibility in the area surrounding its home base.

SWISS is to be seen as more than just another annoying “noise generator,” but rather as a company that also offers thousands of attractive jobs and is committed to the region’s prosperity. In addition to the dialogue with public authorities and people living near company locations, support for associations and institutions are an effective form of cultivating neighborly ties. In particular, SWISS supports and promotes efforts in the areas of sports, education and culture that appeal to a wider public. These are primarily events at the local and regional levels. An important role is played here by the sponsorship of activities for young people, such as the Kloten Flyers, an organization for up-and-coming ice hockey players that is considered exemplary in Switzerland.

SWISS as an employer

Social and economic benefits are also of central importance to the sustainable development of the air transport industry. Having achieved its turnaround, SWISS can not only invest in more advanced aircraft, but can also grow sustainably and create new, attractive jobs. In 2007, the number of employees grew by 700 to a total of 7,160 people. In January 2008, the airline welcomed the 500th new cabin crew member hired since the launch of the SWISS Job Offensive at the end of 2006. Most of the new employees work in Zurich, Basel or Geneva.

Reflecting its international activities, SWISS counted employees from 87 countries in 2007. Some 5,848 jobs are located in Switzerland alone. Well-trained and motivated employees are the basis of the high-quality services for which SWISS is appreciated by its customers.

Training and continuing education are of particular importance in the area of human resources. These cover subject areas such as leadership and social competencies for managers at all levels, conflict management, communication, teamwork and project management. On the airline’s annual “Management Day,” the managerial principles and values that are to be pursued at SWISS are developed and deepened.

SWISS also offers continuing education and training courses for young employees who would like to develop within the company and venture into new areas of responsibility. In this way, the airline helps them to get fit for their careers.

At the end of 2007, 98 women held management positions at SWISS. Of the total of 47 apprentice positions, 12 were in business-related professions, while the remaining 35 apprentices were training to be polymechanics in the aircraft maintenance field. Furthermore, trainees find good opportunities at SWISS to start their professional careers.

In cooperation with its employee representatives, SWISS aims at developing modern work-time models in the areas of full-time and part-time work. This makes reentry into the working world after the birth of a child easier, for example.

The work climate at SWISS is characterized by motivated and committed employees who can apply and develop themselves and their abilities in an appreciative and respectful working environment.

Job engine for Switzerland

Thanks to an attractive framework of conditions, SWISS can offer numerous services at its home base that also have a significant influence on the value-adding chain. For example, one additional long-haul flight per day with an Airbus A340 creates about 110 direct jobs, 100 indirect jobs at suppliers and more than 100 related jobs across Switzerland. Were a foreign airline to provide the same offer in Switzerland, it would generate only about 80 additional jobs locally. Therefore, each long-haul flight SWISS offers from Switzerland matches the job-creating power of a medium- to large-sized company.

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