



Medication, bank notes, live animals, fresh food-stuffs – if valuable and perishable goods have to be transported to their destination across continents quickly, air freight is the only feasible option. Many operators are working hard to improve the ecological credentials of their transport business.

In terms of weight, the market share of global goods moved by air freight amounts to less than one percent. But in financial terms, the picture is completely different. Based on the value of the load being shipped, air freight accounts for more than one third of global freight traffic. The reason for this is clear: The price of air transport is not important in the case of expensive products.

Efficiency on the Ground and in the Air

Technical and organizational innovations improve the eco-credentials of air freight shipments

Rapid Growth Expected

All the experts agree that air freight will continue to grow. Measured in terms of revenue ton-kilometers (RTKs), they believe that the sector will show annual growth rates of approx. six percent – this means that the figure has tripled within 19 years. The growing international division of labor, the global networking of companies, rising demands on the transit time for transported loads and the trend towards dispatching smaller and smaller shipments are the main factors behind this growth.

A comprehensive examination of the environmental credentials of the air freight sector brings some facts to light, which have hardly played a role in the public debate in the past. For example, the land required for air freight is far lower than any other sector: According to calculations carried out by the German Airports Association (ADV), highways and main roads in Germany cover an area measuring approx. 675 square kilometers and the main rail routes account for almost 290 square kilometers. The runways at all German airports, however, only consume about six square kilometers. If the total area of an average airport is measured, grassland accounts for the lion's share – the ADV figures suggest that green spaces account for more than two thirds of the ground needed for an airport.

Minimum Space Needs

While roads, rail networks and even waterways can really carve up landscapes, air traffic only needs ground space at its hubs. No other mode of transport can respond to changes in the market situation with such flexibility. New connections can be established between hubs at any time without new traffic routes having to be constructed.

Stirred on by increases in fuel prices, manufacturers and airlines have achieved a great deal so far to cut consumption and thereby reduce emissions. Specific kerosene consumption has fallen by 70 percent since 1970 and air traffic operations around the world are now responsible for 2.2 percent of global CO₂ emissions. Carriers are using many approaches to save fuel. They are optimizing the weight and balance inside planes before each flight. Cargo planes vary their speed on long-haul flights to make best use of the wind. And because each kilo counts in the air, ongoing improvements in transport containers are a major priority.

But things are also happening on the ground. Apron vehicles with low emissions and modern equipment for generating energy are reducing pollutant emissions. By introducing specific measures and investments, Zurich Airport was able to slightly reduce its absolute energy requirements in 2006 in comparison to 1994 – despite a 40 per cent increase in the amount of space that is heated or air-conditioned and growth in traffic units amounting to more than 15 percent. Having everything on the spot also helps. The air handling center, where the Rhenus subsidiary Cargologic Freight Services handles freight from all over the globe, is located right next to the taxiways.

Fees Reduce Aircraft Noise

The most important airport in Switzerland is also one step ahead of the competition in dealing with a different kind of emission: “We were the first airport in the world to introduce noise-related landing fees at the start of the 1980s,” says Elke Köhler, Political Issues Manager at Zurich Airport’s operating company, Unique. “Particularly loud aircraft have to pay a noise surcharge of up to 1,000 Swiss francs for each landing during the daytime, but the quietest aircraft are not subject to any supplement.” The charges at night are even higher – the surcharge doubles every half hour between 10 p.m. and midnight. The fees that are collected are placed in a fund, which Unique uses to finance noise protection measures and provide compensation for residents in the vicinity.

But one group is often overlooked in the public debate and it could play a crucial role in minimizing emissions at commercial airports: passengers. Studies have shown that people traveling to airports in automobiles landside also cause considerable emissions. One effective measure for improving aviation’s eco-credentials would be to provide attractive links to airports on local public transport systems. 42 percent of passengers, employees and visitors travel to Zurich Airport on public transportation. 300 rail and 600 bus connections make the airport the most efficient traffic hub in Switzerland.

Do you have any further questions?
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Soaring High in Switzerland and the Benelux Area

Rhenus operates air handling and shipping services in the air freight sector. Cargologic AG, which is part of the Swiss subsidiary Rhenus Alpina, provides air freight handling at the airports in Zurich, Basel, Berne, Frankfurt/Main, Parchim and Bratislava. Cargologic is the leading provider of these services in Switzerland; the company handles approx. 500,000 tons per annum and employs about 1,000 people.

Rhenus bolstered its position in the air freight shipping division enormously in 2007 as a result of taking over TMI. As a result, Rhenus has become the market leader for air shipments to and from the Benelux countries.

