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Terms used Copenhagen Airports, CPH, the Group, the Company
Used synonymously about Copenhagen Airports A/S consolidated with its subsidiaries and associates

Copenhagen Airport
The airport at Copenhagen, Kastrup, owned by Copenhagen Airports A/S

Roskilde Airport
The airport at Roskilde owned by Copenhagen Airports A/S

Welcome!

The year 2009 will be a landmark year for Denmark in environmental and climate issues. The goal for the UN climate summit in December is to establish an ambitious and global climate agreement for the period from 2012. Copenhagen Airport will be the gateway to Copenhagen for most of the participants, and we look forward to welcoming these many guests to Denmark. This event made its mark on 2008, with preparations for the summit having a high priority, and this will continue to be the case throughout 2009. CPH must, naturally, prepare itself for all the summit attendees who will be travelling through the airport: we are working intensively in areas such as logistics and security. Moreover, Copenhagen Airport's environmental profile will have to be very clearly defined. On the basis of CPH's climate and energy policies, which were adopted in late 2007, we have worked hard to identify a number of energy-saving initiatives which are either in the process of being implemented or which will be implemented in the near future. Our construction products include energy-conscious planning as a special element, and we are also looking for new, innovative solutions, for instance for Swift, our coming low cost facilities.

Ten years of environmental reporting

This 2008 Environmental Report marks the tenth year since CPH published the first of its kind. The 1998 Environmental Report was our first aggregate report on the environmental impact of the airports at Copenhagen and Roskilde, so this is a good reason to take a look back at the past ten years.

The 1998 Environmental Report targeted all stakeholder groups who wanted to follow CPH's activities in the environmental field, including the finance and business sector, the local community, the environmental authorities and the company's staff. The description of the target group for the 1998 Environmental Report also covers the target group for the 2008 Environmental Report. The Environmental Report can be read as an independent publication or as a supplement to the financial annual report.

Much has happened over the past ten years, both in Danish society and at CPH. In 1998, 16.8 million passengers travelled through the airport; by 2008, this number had climbed to 21.5 million passengers. At the same time, CPH has managed to achieve good results in the environmental field through

long-term goals and efforts, results which are more visible when we look back at what has happened over the past decade. The following examples speak for themselves:

In 1998, the total noise impact around Copenhagen Airport measured according to the TDENL method (Total Day Evening Night Level) was 151.2 dB. In 2008, this noise impact was 146.0 dB, corresponding to a reduction to one-third of the 1998 level. In 1998, the maximum allowed night-time noise level from flight operations was 85 dB(A). Today, the maximum level permitted is 80 dB(A). In 1998, Copenhagen Airport planned to set up its first system for monitoring air quality around the airport. By 2008, CPH had acquired and installed the airport's second system, which was commissioned on 1 January 2009. Measurements taken up to and including 2008 show that NO (nitrogen oxide) has fallen, whereas NO₂ (nitrogen dioxide) and particulate matter (PM₁₀) have been about one-half the threshold limit value set by the regulatory authorities.

Despite these excellent results, CPH wants to perform even better. At the core of CPH's environmental policy is that, as an environmentally responsible company, CPH is operated and developed with a view to continually improving its performance. CPH takes a systematic approach to environmental matters and has done so for many years. One of our general goals for the next few years is to make our approach to environmental activities even more systematic.

It has become a natural part of the year's activities at CPH to report on our environmental performance parallel to reporting on our financial performance. It is also part of our fixed practice for the environmental report to be reviewed by external auditors and to include their declaration in the report. It is quite natural that the environmental report has changed since 1998, both in content and layout. This is how it should be, and it will continue to be this way in future. Society is focusing more and more on corporate activities related to the environment and society in general. As and when new reporting requirements are introduced, CPH will endeavour to plan its reporting to meet society's demands.

Improved communications

In 2008, CPH decided to further strengthen its communications in the environmental field, both externally and internally. For

this reason, CPH has launched a new and expanded environmental section at www.cph.dk. The section was launched in December 2008 to mark the fact that there was one year to the climate summit in Copenhagen.

In-house communications have also been improved. Through campaigns, employees have been asked to come up with ideas from their everyday workday on how CPH can further improve the environment. CPH's environmental policy was expanded in 2007 to include sub-policies for climate and energy which contain independent reduction targets. A prerequisite for being able to work operationally under these policies is that they are widely known in the organisation. In 2008 there was thus a special focus on communicating the new targets in house, and many of the ideas submitted by employees focus on energy-saving initiatives.

Legal framework and work with the authorities

The location of Copenhagen Airport was laid down in the Copenhagen Airport Expansion Act adopted by the Danish parliament in 1980 and revised in 1992. The Act incorporates a balancing of the benefits to society of environmental considerations on the one side and the status of the airport as an international traffic hub on the other.

The environmental impact of the airports at Copenhagen and Roskilde is regulated by the authorities through a number of environmental approvals which are given under the Danish Environmental Protection Act. The environmental approvals define limits for the airports' impact on the external environment, and compliance with them thus helps ensure that activities at the airports do not cause significant nuisance to their surroundings.

The Environmental Centre Roskilde is the regulatory authority for Copenhagen Airport with respect to noise and air pollution from air traffic, and the Municipality of Taarnby is the regulatory authority with respect to other types of pollution. The Municipality of Roskilde is the environmental authority regulating Roskilde Airport.

The framework approval covering noise and air pollution from air transport at Copenhagen Airport, which was granted in 1997 and upheld by the Danish Environmental Appeals Board in 1999, is currently under revision. The part of the approval dealing with air pollution was reviewed, and the Roskilde Environmental Centre granted the revised environmental approval in July 2008. Based on this review, CPH established a new system for monitoring air quality in 2008, as mentioned

above; the system was put into operation on 1 January 2009. Monitoring activities are carried out in collaboration with the Danish National Environmental Research Institute and results are directly comparable with the results from the nationwide monitoring programme.

The work to revise the part of the framework approval which has to do with noise from air traffic is not yet finished, but CPH expects that the final phases will be completed in the course of 2009. The work is being done on the basis of a dialogue between the Roskilde Environmental Centre, the Danish Civil Aviation Administration and CPH.

As the environmental authority governing the other areas of the airport, the Municipality of Taarnby has been supervising both CPH and a number of other companies at the airport. In its supervisory activity, the Municipality of Taarnby had a special focus on waste and waste water in 2008.

In 2006, in an amendment to the regional plan that included an EIA (Environmental Impact Assessment) and a new environmental approval, the authorities approved additional operations at Roskilde Airport and an extension of Runway 11/29. Both decisions were appealed by third parties, and they were both repealed in 2008 and returned for renewed consideration by the respective authorities.

Because of these decisions from 2008, Roskilde Airport continues to operate under the environmental approval originally granted by the County of Roskilde in 1992 and upheld by the Environmental Appeals Board in 1995. The environmental approval has been supplemented and changed in a few areas, but the basis for the regulation of Roskilde Airport continues to be the number of operations per year rather than noise exposure, which is the common regulatory standard for airports today.

The following pages contain further descriptions of each type of environmental impact, and at the end of the report is a table showing five years of environmental data. This Environmental Report has been reviewed by external auditors and includes their statement on the review.

I hope you will enjoy reading the report.

Copenhagen, February 2009



Peter Rasmussen
Senior Vice President

Policies and organisation

Environmental policy

As an environmentally responsible organisation, CPH is operated and developed in such a way as to achieve continually improved environmental results. Improvements are made through constant attention to environmental aspects in all decisions, preventive action, cleaner technologies, increased environmental awareness among employees and partners, and through an open dialogue about the environmental impact of the Company.

CPH will reduce its CO₂ emissions for the activities at Copenhagen by 21% in 2012 relative to 1990. This target is identical to the Danish national reduction target under the Kyoto Protocol and the European agreement on allocation of burdens.

CPH intends to minimise its consumption of non-renewable energy as much as possible, allowing for traffic growth. This minimisation is to be achieved and maintained through: a reduction of power consumption by 10% or more by 2012 compared to 2007; continuous monitoring of energy consumption; evaluation of new technologies with a view to potential implementation; and evaluation of the effect of the energy policy.

Organisation

Environmental work at Copenhagen Airport is characterised by close collaboration between CPH and the other companies at the airport. This collaboration combined with a continuing dialogue with the authorities ensures that the airport is operated in a sound manner in terms of environmental impact.

The environmental impact from the airport comes from activities in the terminals, on the runways and taxiways and around the aircraft. CPH monitors some of this impact, including noise impact and air quality, whilst the responsibility lies with the individual companies. CPH's monitoring results are reported to the environmental and civil aviation authorities, and these authorities then take up the matter with the individual companies.

At CPH, each department is responsible for ensuring that its activities are in compliance with the environmental approvals issued to the airports, current environmental legislation and CPH's environmental policy. CPH's Environmental Department provides advice and handles relations with and reporting to the environmental authorities. Health and safety activities at CPH are organised in a safety organisation consisting of a safety committee and 47 safety groups appointed to handle day-to-day tasks.

Interaction between CPH and the other companies at Copenhagen Airport

Terminal activities

Passenger activities in the terminal area, including restaurants, shops, toilets and offices.

Input

Water for passenger areas
Electricity and heating for passenger areas
Water for restaurants, shops, etc.
Electricity and heating for restaurants, shops, etc.

Output

Waste water
Waste
CO ₂ from electricity and heating in passenger areas
Air quality
CO ₂ from electricity and heating in restaurants, shops, etc.

Runway activities

Maintenance of runways, aprons and other areas, including snow clearing.

Input

Runway de-icers
Electricity for lighting
Herbicides
Fuel for CPH vehicles
Fuel for other vehicles

Output

Surface water
Waste
CO ₂ from electricity for lighting
CO ₂ from fuel for CPH vehicles
Air quality
CO ₂ from fuel for other vehicles

Flight activities

Take-off and landing, aircraft taxiing to terminals. De-icing, washing and aircraft maintenance.

Input

Glycol for de-icing
Aircraft fuel
Water
Electricity and heating

Output

Waste water
Collected glycol
Noise
Air quality
Oil and fuel spills
Waste
CO ₂ from electricity and heating
CO ₂ from aircraft fuel

■ CPH responsibility

■ CPH monitors and controls

■ Lessee and operator responsibility

Climate and energy

In 2008, implementation of CPH's climate and energy policy was given high priority. CPH will cut CO₂ emissions by 21% or more by 2012 as compared with 1990. The target is currently being met, but as it is an absolute target, the 21% must be reached irrespective of the fact that the airport has planned a number of building projects for the coming period. For this reason, the climate policy must ensure that CPH continues to work intensively on energy conservation and energy-friendly planning to ensure that the target is also met in 2012.



Climate impact from aviation

The targets in CPH's climate policy include the CO₂ emissions which CPH as a company has direct control over and thus do not include emissions from aircraft. If we look at Copenhagen Airport as a whole, air traffic is the greatest source of CO₂ emissions. CPH therefore intends to collaborate with its partners at the airport to reduce overall emissions from the airport by guiding and influencing the parties to climate-friendly operations to the widest possible extent.

In 2008, CPH and a large number of other players in the aviation industry committed themselves to taking action on the climate impact of aviation. The occasion was the third Aviation & Environment Summit, at which executives from across the industry stood together for the first time and in a single voice pledged their commitment to working actively to reduce aviation's impact on the climate. Another and more local example is CPH's collaboration with the air traffic control in analysing flight approaches to and departures from Copenhagen Airport in order to identify the most sustainable ways of operation.

One of the climate challenges at any airport as part of a country's infrastructure is the transport of passengers and staff to and from the airport. In this connection, it is of great significance that Copenhagen Airport is located only eight kilometres from the Copenhagen city centre and that travel to the airport is efficient and environmentally friendly, with a railway station and a Metro station at the airport.

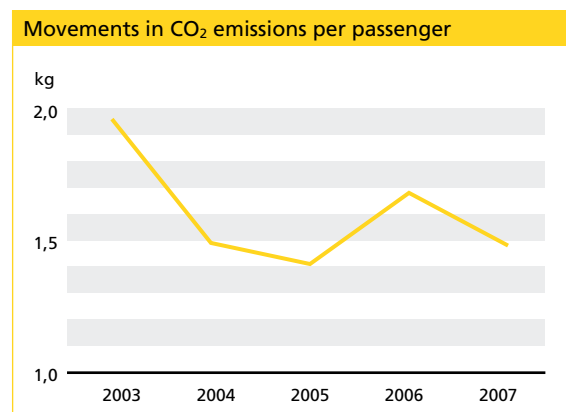
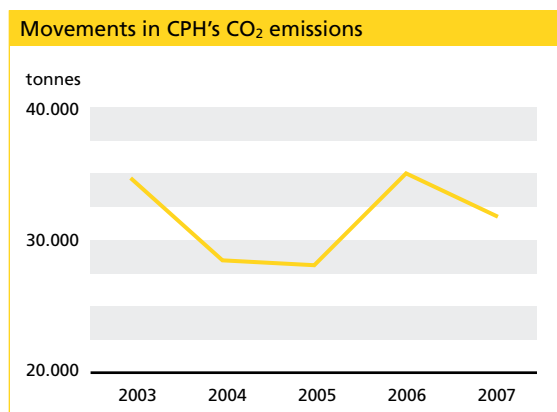
In September 2008, the Metro station at the airport celebrated its one-year birthday, and surveys show that the station is very popular with passengers. More than 50% of passengers currently travel to the airport by train or Metro.

CPH's CO₂ emissions

CO₂ emissions are calculated on the basis of consumption of power, district heating, natural gas, fuel oil, diesel and petrol. In 2007, CPH's CO₂ emissions totalled 31,764 tonnes, down from 2006 by 3,290 tonnes of CO₂, or 9%. If CO₂ emissions are correlated with passenger numbers, emissions in 2007 totalled 1.5 kg per passenger, which was 12% lower than in 2006, when emissions totalled 1.7 kg CO₂ per passenger.

CO₂ emissions data for 2008 will be published at www.cph.dk sometime in the first half of 2009, as data for the conversion from energy consumption to CO₂ emissions in 2008 will not be available until after publication of this Environmental Report.

CPH has a direct influence on its own power consumption, but not on the CO₂ emissions associated with this consumption. Although CO₂ emissions per kWh generated have dropped since 1990, variations have been seen in this parameter of up to 30% in a single year. CO₂ emissions generated by CPH may thus be influenced by external factors as well as internal energy conservation efforts.





Energy consumption at Copenhagen Airport is highest in the terminal areas. The focus on energy conservation is therefore especially concentrated on that area.

To ensure real environmental improvement, CPH also adopted an energy policy in 2007 which prioritises energy conservation and new technologies. As power consumption accounts for approximately 80% of CO₂ emissions at CPH, its energy policy also includes a separate target of a 10% reduction in the use of electricity between 2007 and 2012. This means that, converted into figures, CPH is committed to identifying electricity savings that total approximately 4,500,000 kWh.

CPH's energy consumption

On the platform of its climate and energy policy, CPH is working to identify and implement energy-saving projects in airport operation. Our energy department now has a stronger organisation and more resources to work with, and other CPH employees have been invited to come up with ideas from their day-to-day work for improving the environment, including energy-saving measures. Moreover, energy-friendly planning in connection with construction projects is prioritised: for instance, CPH is investigating the possibility of installing groundwater cooling in connection with the construction of Swift, CPH's new low cost facilities.

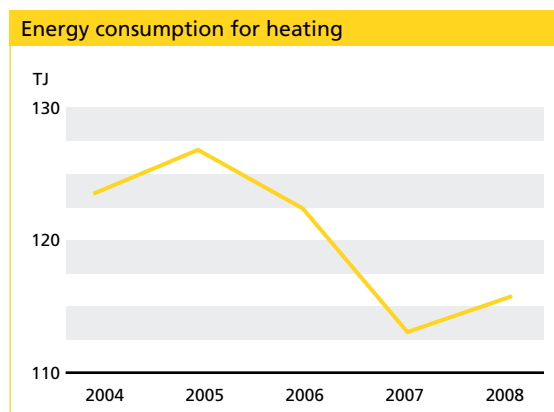
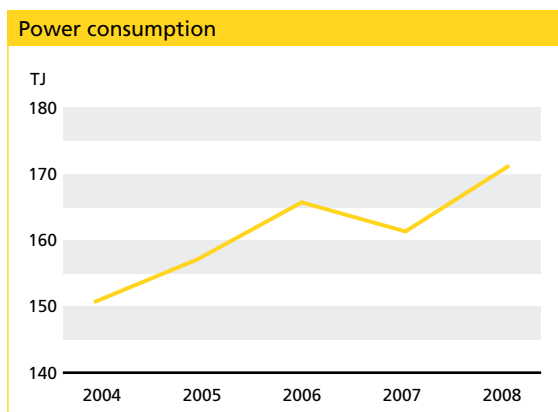
Power consumption increased in 2008 by 6.0% year on year. The increase was partly attributable to extraordinary power consumption in connection with an extensive remodelling and expansion of the Nytorv passenger terminal shopping area. As CPH is planning more construction projects in future years, one consequence of the increase in power use will be that we will have to work even harder

than before to meet our target of cutting power consumption by 10% between 2007 and 2012.


Energy consumption for heating increased by 2.3%. Degree-day adjusted energy consumption for heating increased by 2.5%; in terms of consumption per 1000 square metres, power use increased by 1.7%.

Energy consumption at Copenhagen Airport is highest in the terminal areas. The energy is used for lighting and installations in buildings, on aprons, at aircraft stands, on runways and on taxiways, as well as for ventilation, space heating and air condition in the terminal buildings. CPH distributes electricity, water and heat to the lessees at the airport and owns, operates and maintains all the supply networks for this purpose. Careful documentation of energy consumption and continual assessment of consumption trends contribute to an optimal exploitation of the energy resources by both CPH and the lessees to whom CPH supplies energy.

Premises and hot water are mainly heated by district heating and natural gas. Electric heating is primarily used in small printer huts and remote transformer substations where other heat sources are not feasible. In addition, the airport generates a limited volume of electricity from a small natural gas heating and power plant and from the power diesel generators used as back-ups for the terminal areas and the runway and taxiway installations in the event of a power failure.



Collaboration to improve working environment

A photograph of three people standing outdoors at what appears to be a construction or industrial site. On the left is an older man with white hair and a goatee, wearing a dark jacket over a high-visibility yellow safety vest. In the center is a man with short brown hair, wearing a bright orange high-visibility jacket. On the right is a woman with blonde hair, wearing a black top. They are all smiling and looking towards the right. The background shows a white wall and some industrial structures under an overcast sky.

Workplace assessments and internal audits were the focal point of the safety groups preventive activities in 2008. The “Appreciative Inquiry” communicative method (AI) is in health and safety efforts used to tell the “good working environment story”. The philosophy behind AI is to do more of what works and less of what does not. This method has proved to yield good learning within the safety organisation.

The goal for 2009 is to grow and develop collaborative efforts at the airport regarding health, safety and well-being. Health in the working environment will be on the agenda internally at CPH as well as across the other companies at the airport. Collaboration will be the key to a “good working life” at CPH in 2009.

Accidents and injuries due to physical and mental strain must be reduced. Musculoskeletal injury must be prevented from occurring as a result of day-to-day work and remembered when we plan small and large-scale projects at CPH.

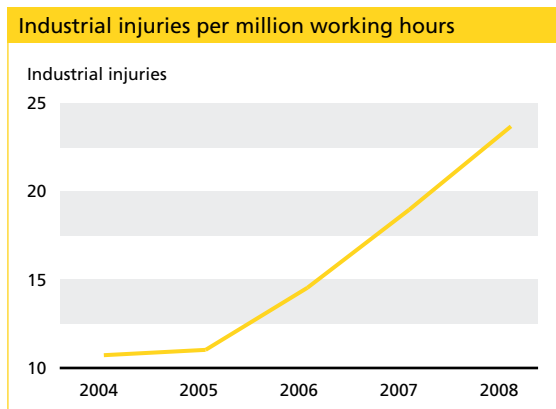
Air quality at Copenhagen Airport

In 2008, CPH focused especially on initiatives to limit air pollution in an effort to improve health and safety for all employees at the airport. Earlier studies of air quality at Copenhagen Airport aircraft stands have shown that the threshold values currently in force were complied with. Still, there is growing concern about ultrafine particulate matter from exhaust gases, both by us at the airport and internationally among scientists.

In 2007, CPH set up a steering committee with members selected from across the companies at the airport. The committee identified a number of initiatives intended to improve air quality in the apron areas, initiatives that include both technical and behavioural activities.

The work to reduce exhaust gases resulted in an increased awareness in 2008 that everyone is responsible for reducing air pollution from exhaust gases. Whenever possible, aircraft must be towed from the stands before start-up. There are campaigns such as "Stop the Engine" for both ground vehicles and aircraft, and there are now agreements about registering and using so-called "green equipment" in the apron areas. The less a vehicle pollutes, the "greener" it is.

The next step will be to quantify the sources of the air pollution on the aprons and to assess the effect of the airport's environmental initiatives. Monitoring and improving air quality in terms of working environment will be an on-going task at the airport.



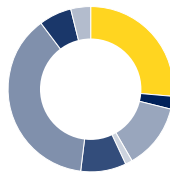
Industrial injuries

The number of employees at CPH was 1,956 in 2008. At Copenhagen Airport, 81 industrial injuries causing absence from work were recorded in 2008, equivalent to an accident rate of 23.7 (number of industrial accidents per million working hours). This was a significant increase compared with 2007, when the rate was 19. In 2008, CPH decided to focus on reducing the number of industrial injuries. An accident campaign was launched in June 2008. The number of industrial injuries subsequently declined in the second half of 2008 compared with the same period in 2007.

The principal cause of industrial accidents was manual handling (work positions, lifting, pulling and pushing), which was also the case in 2007. The second most frequent cause of industrial accidents was staff falling to the ground or floor or to a lower level (on floors or stairs), which is also the same as in 2007. The third most common cause of industrial accidents was hitting or being hit by objects.

In spite of the rise in the number of industrial injuries, the rate of absence from work at CPH due to industrial injury is now considered to be negligible compared with absence due to other illness.

Breakdown of industrial injuries in 2008



	per cent	number
Fall at same level or to a lower level	25.9	21
Accidents with means of transportation	2.5	2
Collision with object	13.6	11
Contact with sharp object	1.2	1
Press, squeeze (fingers)	8.6	7
Manual handling	38.3	31
Acute mental strain, mental shock	0	0
Slaps, kicks, knocks (strangleholds)	6.2	5
Other	3.7	3

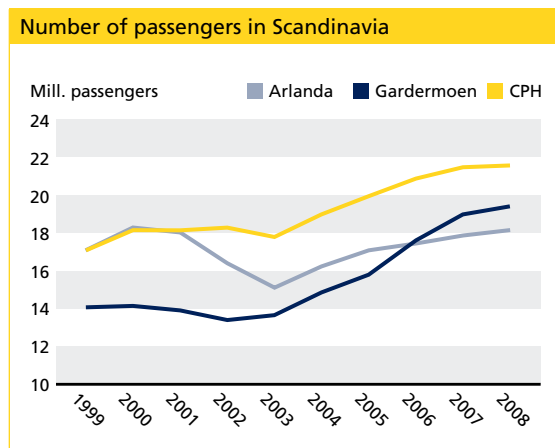
1998 - 2008

- More passengers
- Fewer flight operations
- Lower noise exposure

Traffic and noise

Scandinavia's largest airport

Despite the fact that Denmark's second largest airline, Sterling Airlines, went bankrupt in the autumn of 2008, Copenhagen Airport was able to reinforce its position as Scandinavia's largest airport. The number of passengers in 2008 was the highest in the history of Copenhagen Airport. A total of 21,530,016 passengers used the airport, which was 0.6% more than in 2007. The other large airports in the Nordic region saw only marginal increases in passenger numbers in 2008, as did Copenhagen Airport, among other things a result of the global financial crisis.



Noise from air traffic

Noise from aircraft activities is one of the most noticeable forms of environmental impact an airport causes. The noise exposure primarily comes from aircraft take-offs and arrivals, but noise from aircraft on the ground is also part of the noise impact on the residential areas around Copenhagen Airport. To reduce noise exposure as much as possible, a number of noise-limiting measures have been implemented. They include certain operating restrictions on use of the runways, night-time noise limits for individual aircraft operations, and requirements to the operation of aircraft on the ground.

The noise is monitored constantly, and CPH has an ongoing collaboration with air traffic control and the airlines to com-

ply with the above-mentioned noise restrictions and continually to implement measures to reduce noise generation.

Noise at Copenhagen Airport is regulated through an environmental approval issued by the Danish Environmental Protection Agency in 1997 and upheld by the Danish Environmental Appeals Board in 1999. The Environmental Centre Roskilde is the regulatory authority for Copenhagen Airport with respect to noise and air pollution. A number of noise restrictions relating to aircraft operations have also been incorporated into aviation legislation. The Danish Civil Aviation Administration is the regulatory authority for civil aviation in Denmark and monitors whether these restrictions are complied with.

Thus CPH collaborates with both the environmental authorities and the Danish Civil Aviation Administration to ensure compliance with the restrictions that apply to Copenhagen Airport.

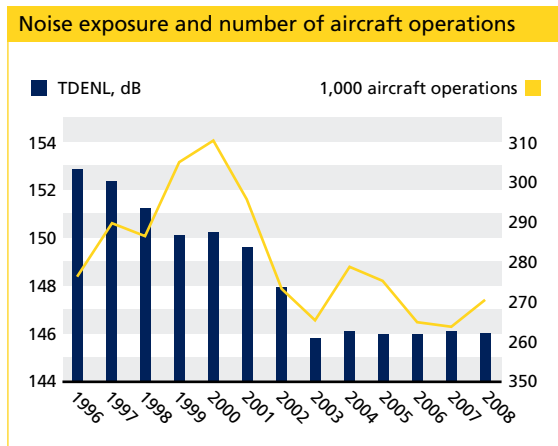
In their environmental approval of Copenhagen Airport, the environmental authorities set a limit for noise exposure, which may not exceed the projected noise exposure for 2005, subject to a tolerance of 1 dB. To determine whether this requirement has been met, a so-called TDENL value (Total Day-Evening-Night Level) is calculated every year to describe the total noise exposure from air traffic at the airport. The reference value which the airport must observe is 147.4 dB (with a tolerance of 1 dB).

The airport's noise exposure in 2008 was calculated to be 146.0 dB: the level of noise exposure from the airport has remained largely the same since 2003. The aggregate traffic volume in 2008 showed an increase year on year. The number of aircraft operations was 264,095, which was 2.5% higher than in 2007.

The airport's TDENL value dropped between the late 1990s and 2002, when a number of the noisiest types of aircraft were phased out. Copenhagen Airport saw its largest number of flight operations ever in 2000, but the

TDENL value increased only marginally during that year for this very reason. From 2003 on, the TDENL value has remained at basically the same level.

The types of aircraft used at Copenhagen Airport have a great deal of influence on the amount of noise from the airport. The seemingly contradictory fact that the number of flight operations increased in 2008 whilst the TDENL value showed a slightly falling trend was due in part to a decline in the number of MD80 (McDonnell Douglas) aircraft operations by 4,483 from 2007 to 2008. As in previous years, the number of operations with aircraft weighing less than 30 tonnes tons showed a further decline in 2008. As compared with 2004, the rate of decline was 32%. The number of operations with aircraft in the 30-50 tonnes range increased significantly, whilst operations with the intermediate weight classes of 50-70 tonnes and 70-120 tonnes saw corresponding increases in the number of operations.



With a location only eight kilometres from the Copenhagen city centre, Copenhagen Airport is situated much closer to a city than many other major airports in Europe. The airport's two main runways run parallel with the Copenhagen Harbour fairway, which has the effect that the city centre and nearby suburban areas are not normally disturbed by aircraft noise. A number of approach and departure corridors have been fixed around the airport to ensure that the lowest possible number of homes is affected by noise.

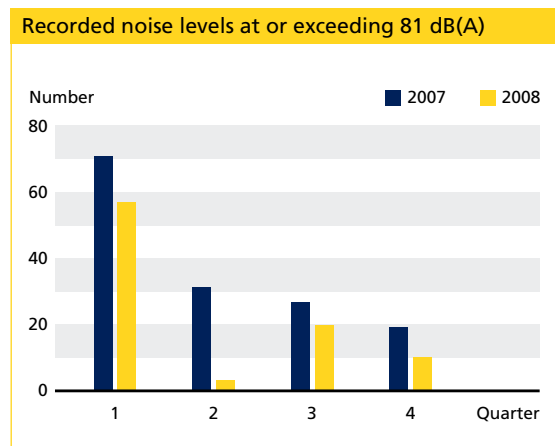
Weather conditions determine air traffic planning and execution, and wind conditions in particular are a decisive factor in the selection of which runway is used for taking off or landing. The choice of runway for departures and

arrivals has a great deal of influence on the noise impact. Both departures and arrivals are performed upwind for safety reasons. Thus the wind determines which runway is used at any one time. The runway system at Copenhagen Airport consists of two parallel main runways (04L-22R and 04R-22L) and a cross runway (12-30). The regulations for runway use specify that, whenever possible, aircraft should avoid passing over residential areas.

Dominant winds from the south west in 2008 are clearly reflected in the use of runways. Most departures (total: 67%) took off using Runway 22R, bringing the aircraft over the southern part of the island of Amager, and most arrivals (total: 67%) came in on Runway 22L, with aircraft approaching from the Øresund. This has been typical of the airport's traffic patterns for many years now. As opposed to the previous year, the cross runway (12-30) was only used to a very limited extent.

Less aircraft noise at night

Aircraft noise at night and during the early hours of the morning can result in sleep disturbances and can be perceived as a particular nuisance. Arrivals and departures during the night-time (11 pm to 6 am) are therefore subject to restrictions to the effect that a maximum A-weighted noise level of 80 dB may not be exceeded at six measuring points located in the residential areas adjacent to the airport (see map showing use of runways and location of noise measuring points on page 12). All events exceeding 80 dB are logged using the airport's noise monitoring system. In 2008, 90 noise events exceeding or at 81 dB(A) were logged, representing a 39% decline as compared with 2007, when 148 noise events were logged.





Noise Measuring Station 2 is located on top of SAS Hangar 4 and is used to monitor Engine Run-up Area 2. This area is surrounded by blast fences intended to protect airport road traffic from the strong air currents that arise during engine run-ups.



In 2007, the aircraft type MD80 was the cause of 85% of all logged noise events exceeding or at 81 dB(A), this mainly in connection with aircraft delays. After the first quarter of 2008, the type of aircraft used for a number of late departures was changed from MD80 to aircraft types such as Airbus 319 and 321. This resulted in many fewer noise events in the remaining three quarters of 2008, which can be clearly seen from the figure on page 11. The MD80's share of noise events dropped to 70% in 2008.

Noise events of 82 dB(A) and above must be reported to the Danish Civil Aviation Administration (CAA-DK). In 2008, the CAA-DK received notice of 48 noise events, an almost 50% reduction in the number of cases compared with 2007, when 90 noise events were reported to the aviation authorities. In two of the cases, the CAA-DK ruled that the restrictions on the maximum allowed noise level had not been complied with.

Fewer engine run-ups

In connection with the repair and maintenance of aircraft, the engines are often tested on ground. Testing of aircraft engines on the ground is a noisy activity which can be a nuisance to the airport's neighbours. For this reason, the airport has set up four particularly shielded or remote areas where engine run-ups are permitted subject to observance of a number of rules. Most engine run-ups take place in Area 2, which is located near SAS's large hangars in the north area and is the best-shielded engine run-up area at Copenhagen Airport.

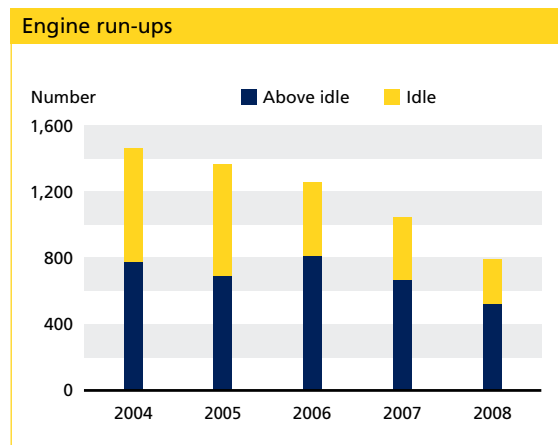
In 2008, a total of 790 engine run-ups were performed, of which 525 were engine run-ups and 265 were idle runs. This was the lowest number of recorded run-ups and idle runs per year at Copenhagen Airport and a continuation of the trend of an overall decline in the number of engine run-ups. In 2008, eight deviations from the engine run-up rules were reported to the regulatory authorities.

The noise impact from aircraft on the ground primarily comes from engine run-ups, but the use of APUs also contributes to the noise exposure. Most jet aircraft have an APU, a small jet engine which produces power and pressurised air for the aircraft when it is on the ground and the main engines are turned off. To reduce noise, the APU may only be used for five minutes before the aircraft leaves the stand and five minutes after it arrives at the

stand. For the rest of the time, the aircraft must use the power and ventilation facilities provided by the airport at most stands. At 103 out of the 121 numbered stands at Copenhagen Airport, we have installed stationary power supply facilities for aircraft. At stands that do not have these facilities, the aircraft can use a GPU (ground power unit), which is a diesel or electrically powered generator that emits considerably less noise than an APU. CPH made regular inspections during the year to monitor the use of APUs at the aircraft stands.

In 2008, 117 inspections were made to check the use of APUs by aircraft; a representative selection of the airport's stands used for jet aircraft were inspected. In 75 cases, the rules were complied with, whilst the conditions for use of APUs were not complied with in 42 cases. Accordingly, 36% of the inspections showed violation of the rules. An evaluation of the last four years of aircraft stand inspections shows that stands with power and ventilation facilities showed a decline in violations from 62% in 2005 to 13% in 2008. The stands that do not have these facilities saw only a small drop in violations, in spite of a campaign to observe the rules in force brought about by the fact that in 2008 every second aircraft (52%) did not comply with the rules. The campaign will continue at a greater intensity in 2009.

In connection with most of the recorded violations, CPH took direct action by boarding the aircraft in question and notifying the pilot that the airport's rules on use of APUs must be complied with.



Air quality is generally good near the airport

CPH measures air quality in order to check it against the threshold values set by the Danish Environmental Protection Agency. This is a requirement under the environmental approval granted to the airport with respect to air pollution from air traffic. The requirements were fixed on the basis of the general threshold values intended to ensure that air quality remains at a level involving the least possible harm to public health.

The air quality around the airport is affected by several different sources of pollution: traffic on the roads in and around the airport, aircraft, local residential areas and industry, and the city of Copenhagen (homes, traffic, and industry)

In collaboration with the Danish Environmental Protection Agency, CPH has set up a programme for measuring air quality at the airport's perimeter fence. There are three measuring points: to the east and the west of the terminal area and at the south gate of the airport. The purpose of the two northern measuring stations is to enable CPH to assess emissions added to the air when it passes over the terminal area, as previous studies have shown that the highest pollution levels are in that area. The third monitoring station is located where the impact from the airport is lowest.

Each monitoring station measures levels of nitrogen oxide (NO), nitrogen dioxide (NO₂), sulphur dioxide (SO₂), ozone (O₃), particulate matter (PM_{2.5} in the northern section and PM₁₀ in the southern section), toluene and benzene. In this Environmental Report, we focus on the parameters which have the greatest local impact and are comparable with other measurements of air quality: NO, NO₂ and PM₁₀.

NO levels have generally shown a downward trend since 2001. This correlates well with levels measured in other urban areas in Denmark, which have also seen reduc-

tions in NO since the early 1990s. The main reason for the drop is the general phasing out of cars without catalytic converters. No threshold value has been set for NO. If we look at the average concentration of NO₂, it does not vary with the number of aircraft operations during a 24-hour period. The 24-hour variation in NO₂ levels correlates more with the variation in car traffic in Copenhagen and on the surrounding road system. The measurements in 2008 showed that the concentration of NO₂ continued to be about half the threshold value, which continues the falling trend recorded since 2001. The concentration of PM₁₀ measured in 2008 was below the levels measured in preceding years. One of the reasons is believed to be less long-distance transport of air pollution from Eastern Europe than before due to meteorological conditions.

The generally good air quality around the airport is partly due to its location in an open, flat area which provides a quick mixing/dispersion of pollution. In addition, aircraft – by far the largest source of pollution – produce emissions at an altitude where the impact on air quality at the ground level is reduced substantially by dispersion.

Environmental Centre Roskilde issued a revised environmental approval of air pollution from air traffic in the summer of 2008. As a result of the revised environmental approval, a new air monitoring system and a new measuring programme were introduced on 1 January 2009.

In future, air quality data will come from the two northern measuring stations, which will measure NO, NO₂ and PM_{2.5}. The stations are run by the Danish National Environmental Research Institute in collaboration with CPH, and results will be directly comparable with similar measurements performed under the nationwide air quality monitoring programme.



Waste volume has declined

CPH disposes of 11 tonnes of waste per day from the three passenger terminals and from CPH's maintenance facilities and administration buildings. Other companies are responsible for disposing of the waste from aircraft and other activities on the ground, such as maintenance and catering. The total volume of waste produced at CPH was down 2.3% in 2008 from 2007. This is the first time the volume of waste has decreased even though the number of passengers increased. However, this drop should be seen in light of heavy increases in the volume of waste since 2006. In terms of volume of waste per 1,000 passengers, a decline was seen: from 186 kg in 2007 to 181 kg in 2008. The separation between the various waste systems at the airport is not very strict, so it is easy for shifts to occur in the amounts of waste collected in the different systems.

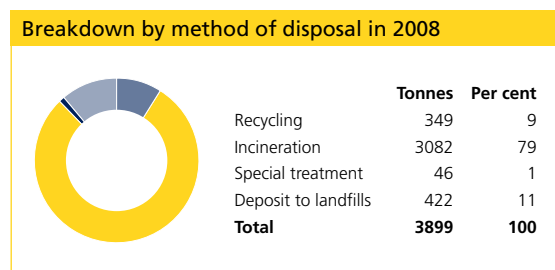
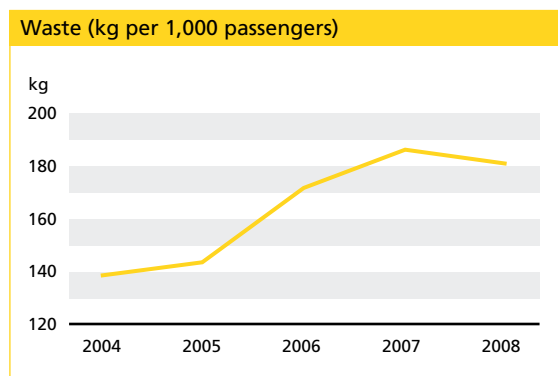
Waste collected is disposed of by four different methods: recycling, incineration, special treatment and landfill deposit.

Recycling of waste turns it into new raw materials. The amount of waste sent to recycling accounted for 9% of the total volume of waste. In actual quantity, this represented a 29% decline. The volume of iron and metal in particular showed a decline after strong increases in 2006/07. Recyclable waste is primarily cardboard, paper, and iron and other metals. Most of the recyclable waste is generated continually by airport operations, whereas a smaller and highly variable proportion is generated by various cleaning-up processes.

Waste that cannot be recycled is utilised by way of incineration for district heating and power. The amount of waste for incineration was 4.6% higher than in 2007. In 2008, waste for incineration accounted for 79% of the total amount of waste: waste for incineration primarily consists of mixed combustible waste from offices, shops, news outlets and passenger areas in general.

Some waste contains environmentally hazardous compounds and is not suitable for recycling or ordinary incineration. This type of waste must be incinerated at special facilities, such as Kommunekemi. The volume of waste for special treatment was down 74% from 2007. Waste for special treatment primarily consists of water with a small content of oil and/or soap, e.g. from washing stands after oil spills. Two factors that affect the volume of this waste are the amount of precipitation and the time of year the collection tanks are emptied. As a result, there are large fluctuations in the volume of waste for special treatment. The fall in 2008 was primarily due to a drop in the volume of oil/water/soap.

Waste that is neither suited for recycling nor for incineration must be deposited to a landfill. The volume of waste for special treatment was 13.5% higher than in 2007. This type of waste primarily comes from infrastructure maintenance and is not affected by changes in passenger numbers. The largest fraction for disposal to landfills is waste swept from streets and similar areas and waste vacuumed from stands and similar areas.







Water and resources

Copenhagen Airport covers an area of 11.8 square kilometres. In order to ensure that the airport's runways, taxiways, aircraft stands and handling roads are kept free of rainwater, the airport has an efficient drainage system and large drainage ponds from which surface water is discharged to the Øresund via five outlets.

For safety reasons, it is necessary to use de-icing agents at the airport during the winter season. The de-icing agents used at the airport, formiate and propylene, are easily degradable and not hazardous to the environment in small quantities.

When 1 mm of rain falls at the airport, around 6000 cubic metres will be discharged to the Øresund via the surface water system.



An efficient water drainage system ensures that runways, taxiways, aircraft stands and handling roads in the aircraft area are not flooded. Because the runway area is also low-lying, it is necessary to have large storage pools for the collection of water from heavy rain showers. This separate drainage system for surface water significantly reduces the volume of water to be treated at external treatment plants.

Surface water is discharged into the Øresund from five outlets. The airport has an area of 11.8 square kilometres, of which the paved area accounts for approximately 3.8 square kilometres. The largest contribution to surface water comes from the north area with terminals and aircraft stands, where most of the areas are paved.

Water quality is monitored at each of the outlets by periodical analysis of 24-hour samples. The main activities contributing environmentally hazardous substances are oil and fuel spills and the de-icing of aircraft, runways and aircraft stands. A limited use of herbicides does not affect the quality of the surface water discharged into the Øresund.

Increased safety through use of herbicides

CPH seeks to reduce its use of herbicides as much as possible, but it is necessary for safety reasons to spread such chemicals along security fences and runways where mechanical weeding is not possible or sufficient. Ground vegetation must be low enough so it is possible to determine by visual inspection along the perimeter fence whether the fence is broken.

In 2008, use of herbicides in the airport area totalled 262 litres, an increase from 2007, when a total of 179 litres was used. In 2006, CPH recorded occurrences of giant hogweed growing on the embankments. It was necessary in 2008 to continue the use of pesticides in combating this infestation and even to intensify efforts.

Immediate purification of oil and fuel spills

The fuel provider at Copenhagen Airport, Brændstoflageret Københavns Lufthavn I/S, receives jet fuel via an underground pipeline from its own pumping station at Prøvestenen. From the storage tanks, jet fuel is distributed to aircraft stands, primarily via pipelines to pit wells from which aircraft are fuelled. In 2008, 121,783 fuelling operations took place at Copenhagen Airport involving a total of 945 million litres of jet fuel.

Even though great care is taken, spills cannot be avoided. In 2008, a total of 190 spills were recorded totalling 2,215 litres, down from 209 spills totalling 11,893 litres in 2007. There was only one major spill of 200 litres in 2008.

Out of the total number of spills, 86 were fuel spills involving a total of 1,085 litres, whilst there were 104 oil spills (hydraulic and engine oil) involving 1,130 litres. The total number of spills and the total volume should be seen in relation to the total consumption, corresponding to a spill of approximately 1 litre for each 426,580 litres of fuel used.

CPH cleans all oil and fuel spills from the refuelling of aircraft and vehicles. Large spills are vacuumed up immediately, and the area is cleaned using a soap treatment which is later vacuumed up by a specially designed vehicle. After that, any oil residue is rinsed off into the nearest oil separator, which is subsequently emptied and cleaned. Minor fuel spills are collected using an absorbent material. All spills are logged in order to get an overview of the total volume and number of spills. Spills are cleaned up both for fire safety reasons and to avoid contamination of surface water.

To minimise the discharge of oil components via the surface water system, 144 oil separators have been set up in the airport area. A fixed procedure of monthly sounding and emptying whenever needed ensures an optimal removal of oil so that it does not end up in the surface water system. In the fire drill area in the south area of the

Waste water per 1,000 passengers

1998: 22.2 cubic metres

2008: 11.5 cubic metres

airport, surface water and water used in drill runs is collected, and this water is discharged through a system of oil separators and coal filter plants before it runs into the surface water system.

Fuel consumption

Consumption of diesel fuel for CPH vehicles in 2008 was 769 cubic metres, a slight increase on 2007, when consumption was 757 cubic metres. Diesel fuel is primarily used for vehicles that assist in the maintenance of areas, also the cleaning and de-icing of runways and taxiways. For this reason, consumption levels are highly dependent on how much snow has to be cleared and thus how much the snow-clearing vehicles have to be operated. Diesel fuel consumption has increased steadily since 1998, although there have been fluctuations due to weather conditions. The increase in diesel fuel use corresponds to the increase in passenger numbers.

The airport's consumption of petrol was 38 cubic metres in 2008, which was half as much as in 1998, a fact attributable to the replacement of petrol-fuelled cars with diesel-fuel vehicles.

Winter weather and de-icing agents

The airport is at its highest alert level during the winter season. Especially critical meteorological conditions at Copenhagen Airport are temperature fluctuations around zero degrees Celcius combined with precipitation or fog, as this implies a risk of ice formation on the runways, taxiways and aircraft.

The airport has three de-icing platforms where aircraft are sprayed with approximately 200 litres of 80°C glycol mix. Used de-icing liquid is collected from the platforms by drains and discharged into collection tanks.

In 2008, consumption totalled 313 cubic metres of 100% propylene glycol, down from 355 cubic metres in 2007, reflecting a low level of consumption that was the result of mild winters in both 2007 and 2008. Out of the volume used, 153 cubic metres of 100% propylene glycol were collected.

Some of the liquid collected from the platforms is transported to treatment and biogas plants on the island of Zealand, and some with a propylene glycol concentration below 5% is spread out over an area of the airport approved for this purpose. During the winter season, the concentration of the liquid in the tanks is checked every day. Liquid with a propylene glycol concentration above 5% is taken to a treatment plant, where the chemical is used as a carbon supplement to the biological processes in the plants. In the area where the liquid is spread, soil samples are taken to check that the propylene glycol is degrading properly. Samples show that the glycol is completely degraded about two months after the last spreading.

Liquid and solid formiate is used to de-ice runways and taxiways. In 2008, CPH phased out the use of a sand/urea mix, replacing it with quartz sand in the aircraft stand areas where handling staff work. In 2008, 824 tonnes of formiate was used, up from 784 tonnes in 2007. The volumes used in 2007 and 2008 were half the volumes used in 2004-2006 due to the milder winter seasons.

Renovation of drains to safeguard the surface and waste water system

To safeguard against substances leaking from or ground water leaking into the airport's waste water and surface water pipes, oil separators and wells, CPH has prepared an action plan for the renovation of its surface water and waste water systems that will run until 2013.

Ten thousand metres of drainpipes at the eastern end of the North Area were video inspected in 2007. This preliminary inspection formed the basis for the renovation of 2,300 metres of drainpipes in the area in 2008.

Water consumption per 1,000 passengers

1998: 10.6 cubic metres

2008: 7.5 cubic metres

Waste water

Waste water from Copenhagen Airport is discharged to waste water treatment plants in the municipalities of Tårnby and Dragør. Most of the waste water by far is discharged to the Tårnby treatment plant. The quality of the waste water discharged can be affected by the many different activities performed by the airport and its partners.

The volume of waste water is registered by continuous flow monitoring. The volume of waste water discharged per 1000 passengers increased marginally in 2008 as compared with 2007. The volume of waste water per 1000 passengers has been at the same level for the past five years. In 2008, the volume discharged was 11.5 cubic metres per 1000 passengers, up from 10.8 cubic metres in 2007.

The quality of waste water is monitored by taking 24-hour samples every month. The discharge of heavy metals is generally at the same level as in previous years.

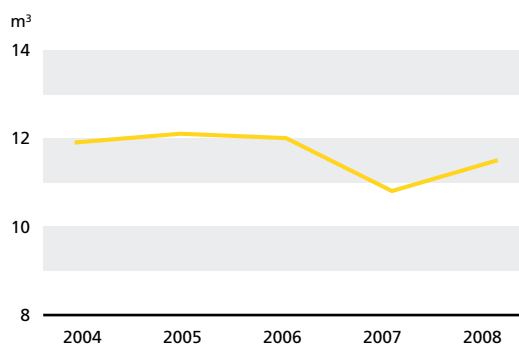
Water conservation measures have resulted in a reduction in the volume of waste water and thus a concentration of waste water. The volume of waste water discharged was 248,419 cubic metres in 2008, up from 232,278 cubic metres in 2007.

Water consumption

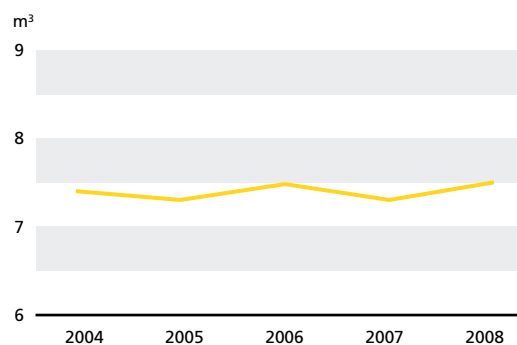
The water used at Copenhagen Airport comes from the municipalities of Tårnby and Dragør. Moreover, second-quality water from a local remedial drilling is used for toilet flushing in certain selected areas of the terminals, for car washing and for cooling of engineering rooms. The primary water consumption is in the terminals, which about 60,000 passengers use every day. The airlines, catering companies and other lessees at the airport are responsible for their own water consumption.

Total drinking water consumption in 2008 was 161,510 cubic metres, equivalent to 7.5 cubic metres per 1,000 passengers. Consumption was at the same level as in 2007. Consumption per 1,000 passengers has generally been at the same level over the past five years.

Waste water per 1,000 passengers



Water consumption per 1,000 passengers



Environmental impact of Roskilde Airport

Air traffic

Roskilde Airport is used today as a regional airport for the Copenhagen metropolitan area and Zealand. The airport is mainly used for training, taxi and business flights: 80% of traffic in 2008 was light aircraft in the weight class between one and two tonnes.

In 2008, 87,225 aircraft operations were handled at Roskilde, the largest number of operations in the past five years. The number of operations increased by 15% year on year in 2008. Operations with light aircraft between one and two tonnes accounted for the largest increase, as aircraft operations in this weight class increased by 17% from 2007 to 2008. The weight class above two tonnes increased by 7%.

Roskilde Airport's helicopter quota increased from 4,000 to 8,000 annual operations in 2008. The number of helicopter operations in 2008 was 5,454. Generally there has been a rise in helicopter operations in recent years. The rise is seen in business flights, flights for TV media, private flights, military flights and operations using the air force rescue helicopter.

The number of passengers at Roskilde Airport in 2008 was 30,269, which was 7% lower than in 2007. This was the lowest number of passengers since 1999.

The runway system at Roskilde Airport consists of two runways: 03-21 and 11-29. Runway 21 was the one used the most in 2008, accounting for 42% of all take-offs and 38% of all landings.

Aircraft engines are tested in connection with general aircraft repair and maintenance procedures. Engine tests add to the noise exposure on the areas around the airport, and a number of measures have been introduced to minimise the noise nuisance as much as possible. Engine testing consists of the start-up and running of engines at a higher effect than idle-run in order to test the engine of one of the systems of an aircraft. Idle-runs thus consist of the start-up and running of an engine at idle power only.

Engine run-ups have been referred to special areas and are basically only allowed between 7.00 am and 6.00 pm on weekdays. In 2008, engine testing occurred 449 times. Of these, 288 were engine run-ups and 161 were idle runs. The number of engine tests increased by 9% year on year to the highest number of tests logged over the past six years. The proportion of engine run-ups, which are more noisy than idle runs, decreased 14% year on year. Accordingly, the number of idle-runs almost doubled year on year. An air taxi company increased its activities considerably in 2008, which explains part of the increase in idle-runs. Two deviations from the engine run-up regulations were recorded.

Energy and water consumption

Energy consumption for heating fell by 3.5% year on year. If the variation in outdoor temperatures is taken into account, energy consumption according to this method of calculation showed a decline by 6.8% year on year. Total electricity consumption declined by 3% year on year.

Water consumption at Roskilde Airport increased by 61% from 2,436 cubic metres in 2007 to 3,934 cubic metres in



2008. However, this high rate of increase should be seen against a very low consumption of water in 2007. Water consumption in 2008 was on a level with consumption in the years prior to 2007. Historically, there are wide variations in water consumption levels.

Waste

Waste from Roskilde Airport primarily consists of ordinary household-like waste generated from the passenger terminal, the administration building and the maintenance facilities. The estimated volume was below 50 tonnes in 2008.

Regulatory decisions

In 2006, in an amendment to the regional plan that included an EIA (Environmental Impact Assessment) and a new environmental approval, the authorities approved additional operations at Roskilde Airport and an extension of Runway 11/29. Both decisions were appealed by third parties. Both decisions were repealed in 2008 and returned for renewed consideration by the respective authorities.

The regional plan amendment with the EIA was adopted by HUR (the Greater Copenhagen Council) in 2006. The council was disbanded at the end of 2006 as a result of the municipal reform in Denmark. The plan amendment was repealed by the Danish Nature Protection Board of Appeal with the motivation that it was subject to the Danish Environmental Assessment Act and that the requirements under this act had to be met in addition to the requirements under the Danish Planning Act and the EIA rules. The Nature Protection Board of Appeal found that

HUR's failure to observe the Environmental Evaluation Act was a clear legal shortcoming which must be considered material and therefore lead to the repealing of the amendment.

The environmental approval was granted by the County of Roskilde, which also no longer exists. The Environmental Appeals Board repealed the environmental approval with the motivation that the repealing by the Nature Protection Board of Appeal of the regional plan amendment with the EIA had the effect that the necessary planning guidelines no longer existed for the contents of the environmental approval.

Because of these decisions, Roskilde Airport continues to operate under the environmental approval originally granted by the County of Roskilde in 1992 and upheld by the Environmental Appeals Board in 1995. The environmental approval has been supplemented and changed in a few areas, but the basis for the regulation of Roskilde Airport continues to be the number of operations per year rather than noise exposure, which is the common regulatory standard for airports today.

Accounting policies

The CPH Environmental Report describes environmental impact trends and changes due to the operation, maintenance and expansion of the airports at Copenhagen and Roskilde.

An Environmental Impact Assessment (EIA) of the extension to Copenhagen Airport from 1996 and Copenhagen Airport's environmental approvals from 1997, which were upheld by the Danish Environmental Appeal Board in May 1999, form the basis for the selection of environmental factors deemed to be of significance to CPH's activities, and which are shown in a table on page 4. The Environmental Report describes developments in these environmental factors, since they have an environmental impact in ways that CPH is responsible for, monitors and controls.

The data in the report are based on regular compilation from the individual areas at the airport[s], after which they are collected in a central database for further processing. Data are provided in one of the following ways:

- Externally documented loggings
- Internal loggings
- Calculated data
- Estimated data

Traffic and noise

Traffic growth is calculated on the basis of data in CPH's traffic statistics system and includes all aircraft operations by aircraft type, take-off weight, use of runway and time. Total noise impact from departures and arrivals at the airport is calculated using the TDENL method, and calculations are based on each aircraft operation, including aircraft type and time of day. The calculations are based on the three months of the year with the highest level of traffic.

TDENL is an acronym for Total Day Evening Night Level and is a method of calculation used for ongoing monitoring of

noise exposure in and around airports and airfields. The method, which expresses the noise exposure in a single number, the TDENL value, is recommended by the Danish Environmental Protection Agency and is based on DENL, which is used for noise mapping around airports.

DENL is the constant, equivalent A-weighted noise pressure level during an average 24-hour period with the addition of 5 dB for noise events during the evening (7.00 – 10.00 pm) and 10 dB for noise events during the night (10.00 pm – 7.00 am).

In the airport's environmental approval, the Danish Environmental Protection Agency has set a threshold value of 147.4 dB in TDENL, with a tolerance of 1 dB, for the noise impact.

The number of noise events resulting from night flights to and from Copenhagen Airport is monitored and logged by CPH's noise monitoring system. The number of engine testing incidents, including the number of engine idle-run incidents and deviations from rules on engine testing, is stated in this Environmental Report based on reports received from the airlines.

CO₂

The volume of CO₂ discharged is calculated on the consumption of power, natural gas, heating oil and district heating and the consumption of fuel power units and diesel generators and emission factors for the individual sources of CO₂. Emission factors have been provided by VEKS (Vestegnens Kraftvarme Selskab) with respect to district heating and by Energinet.dk with respect to power. For power, emission factors for eastern Denmark are used. However, in the determination of emissions in 1990, emission factors for the whole country were used as no emission factor for eastern Denmark exists for that year. Emission factors for other sources of CO₂ have been provided by the Danish Energy Authority.

Energy consumption

Each type of consumption, including power, natural gas and district heating, is calculated on the basis of volumes purchased/registered less quantities distributed on to other companies at the airport. This year's figures are based on a preliminary calculation as the final energy accounts will be available later than this Environmental Report. BBR register information, CPH building register information and measurements are used to estimate the area heated.

Number of employees

The number of employees is identical to the number of staff stated in CPH's financial annual report. The number is based on the number wage and salary hours paid by CPH, which means that the method takes into account part-time employees and hourly paid employees.

Industrial injuries

The number of industrial injuries is the annual number of reported injuries causing one or more days of sick leave. The industrial injury frequency rate is calculated as the number of industrial injuries per one million working hours. The number of working hours is calculated as a normal year less five weeks' holidays.

Air quality

The air quality at Copenhagen Airport is monitored and logged by CPH's air quality monitoring system. The system also collects meteorological data.

Waste

Most data on waste is gathered from weighing slips or monthly statements from recipients of the waste. In some cases, it is impossible to calculate the quantity of the waste, since the weight or volume was not logged. In those cases, an estimate of weight is made.

Waste water

The volume of waste water discharged is measured by

online meters connected to CPH's central tracking system (CTS). Water quality is determined from analysis of periodical water samples carried out by a third-party laboratory.

Oil and fuel spills

The number of oil and fuel spills is calculated as the number of reports filed by Security, Fire and Rescue or other in-house and third-party sources. The calculation of the volume of spills is subject to some uncertainty, as it is rarely possible to measure the exact volume of a spill.

Resources

The volume of glycol used for aircraft de-icing is calculated by the companies that handle de-icing. The annual volume of glycol recovered is determined on the basis of the registered volume of each truckload removed, adjusted for tank contents at the beginning and end of the year. The consumption of runway and taxiway de-icers is calculated on the basis of the volumes purchased. The consumption of herbicides and fuel for vehicles and diesel generators is calculated on the basis of the volumes purchased, adjusted for inventory change.

Water consumption

Water consumption is calculated on the basis of volumes purchased/registered less volumes distributed on to other companies at the airport. The calculation of water consumption does not include second-quality water. This year's figures are based on a preliminary calculation as the final water accounts will be available later than this Environmental Report.

Independent auditors' statement to the Shareholders of Copenhagen Airports A/S

We have assessed the Environmental Report of Copenhagen Airports A/S for 2008 with a view to issuing a statement on the Report.

Criteria for the preparation of the Environmental Report
The Environmental Report comprises environmental impacts of the Company's airports in Copenhagen and Roskilde.

The criteria for the preparation of the Environmental Report appear from the accounting policies described on page 24 - 25 and in the sections on pages 4 - 22. The accounting policies state the basis for the choice of environmental impacts for reporting, the reason for the activities chosen and the recognition and measurement methods used for presenting environmental data in the Environmental Report.

Responsibilities

The Environmental Report is the responsibility of Company Management, including the establishment of registration and internal control systems to ensure a reliable reporting basis, the fixing of acceptable reporting criteria and the choice of data to be collected.

Our responsibility is to express an opinion on the Environmental Report based on our assessment.

Basis of Opinion

We have planned and performed our work in accordance with the International Standard on Assurance Engagements (ISAE) 3000 with a view to obtaining limited assurance that:

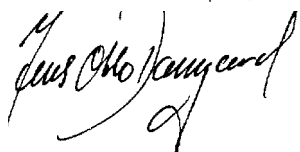
- the Environmental Report correlates with the Company's activities for the financial period;
- the data stated in the Environmental Report for 2008 for the activities comprised have been documented and stated in accordance with the methods described for recognition and measurement in the accounting policies.

The assurance obtained is limited as our work has been limited compared with an audit assignment. Our work has primarily comprised inquiries, accounting technical analyses of accounting figures and other information. Moreover, we have tested data and underlying documentation and checked whether the accounting policies have been observed.

Opinion

Nothing has come to our attention that causes us to believe that the data disclosed in the Environmental Report for 2008 have not been stated in accordance with the criteria described.

Copenhagen, 20. February 2009
PricewaterhouseCoopers, Statsautoriseret Revisionsaktieselskab



Jens Otto Damgaard
State Authorised Public Accountant



Birgitte Mogensen
State Authorised Public Accountant

Environmental data



Copenhagen Airport

		2004	2005	2006	2007	2008
Key figures						
Aircraft operations	Number	272,518	268,655	258,356	257,591	264,095
Passengers	Number	19,034,585	19,981,872	20,877,496	21,409,526	21,530,016
Employees (CPH) (1)	Number	1,485	1,652	1,694	1,842	1,956
CO₂						
CO ₂ emission	tonnes	28,450	28,080	35,054	31,764	NA
CO ₂ emission per passenger	kg	1.5	1.4	1.7	1.5	NA
Energy consumption						
Electricity consumption	TJ	151	157	166	161	171
Energy for heating	TJ	124	127	122	113	116
Energy for heating per 1.000 m ²	TJ	0.60	0.68	0.65	0.55	0.56
Total energy consumption	TJ	274	284	288	274	287
Industrial injuries						
Per 1 million working hours (2)	Rate	10.8	11.1	14.6	19.0	23.7
Noise exposure						
TDENL	dB	146.1	146.0	146.0	146.1	146.0
Night period maximum noise levels from departures and arrivals						
81 dB(A)	Number	0	16	18	58	42
82 dB(A)	Number	0	16	18	43	20
83 dB(A)	Number	0	11	10	25	13
84 dB(A)	Number	0	6	6	12	8
85 dB(A)	Number	0	4	2	5	4
86 dB(A)	Number	3	1	1	2	2
87 dB(A)	Number	0	0	3	1	1
88 dB(A)	Number	1	2	0	2	0
89 dB(A)	Number	0	0	1	0	0
90 dB(A)	Number	0	0	0	0	0
> 90 dB(A)	Number	0	0	0	0	0

(1) Historical data have been adjusted due to a changed calculation method.

(2) 2007 has been adjusted by one industrial injury which was not reported until 2008.

		2004	2005	2006	2007	2008
Use of runways						
04L Departures	% breakdown	0.0	0.1	0.8	0.0	0.1
04L Arrivals	% breakdown	30.3	30.1	29.2	33.8	29.0
04R Departures	% breakdown	30.0	29.3	27.8	33.5	29.7
04R Arrivals	% breakdown	0.1	0.1	0.1	0.1	0.7
22L Departures	% breakdown	4.8	4.4	3.9	3.2	2.8
22L Arrivals	% breakdown	65.8	67.0	68.0	60.6	66.5
22R Departures	% breakdown	65.0	65.9	67.3	61.7	66.9
22R Arrivals	% breakdown	1.6	1.7	1.5	1.6	0.6
12 Departures	% breakdown	0.0	0.2	0.1	1.0	0.1
12 Arrivals	% breakdown	0.2	0.4	0.2	0.9	0.6
30 Departures	% breakdown	0.2	0.1	0.1	0.7	0.3
30 Arrivals	% breakdown	2.0	0.7	1.1	3.0	2.7
Weight distribution - aircraft						
0-29 tonnes	Number	101,359	95,367	90,242	83,078	69,410
30-49 tonnes	Number	11,916	14,950	15,981	15,232	25,178
50-69 tonnes	Number	92,777	96,509	94,314	97,503	101,504
70-119 tonnes	Number	55,799	50,706	45,828	50,030	55,877
120-299 tonnes	Number	9,213	9,310	9,846	9,629	10,177
300- tonnes	Number	1,454	1,813	2,145	2,122	1,949
Engine run-ups						
Engine run-ups	Number	1,465	1,371	1,263	1,054	790
of which idling	Number	695	677	447	390	265
Deviations	Number	10	3	20	7	8
Air quality						
NO	µg/m ³	6.3	4.9	5.2	4.4	3.7
NO ₂	µg/m ³	22.1	20.8	20.7	20.2	16.9
PM ₁₀	µg/m ³	19.6	24.1	25.3	18.1	18.4
Waste volume						
Recycling	tonnes	402	376	438	493	349
Incineration	tonnes	1,781	2,039	2,649	2,947	3,082
Special treatment	tonnes	119	118	93	179	46
Landfill	tonnes	341	336	421	372	422
Total	tonnes	2,643	2,868	3,601	3,991	3,899
Per 1,000 passengers	kg	139	144	172	186	181

Copenhagen Airport

		2004	2005	2006	2007	2008
Water consumption						
Water consumption	m ³	141,171	146,408	156,118	159,347	161,510
Per 1,000 passengers	m ³	7.4	7.3	7.5	7.4	7.5
Waste water discharge						
Total	m ³	225,506	242,009	250,353	232,278	248,419
Per 1,000 passengers	m ³	11.9	12.1	12.0	10.8	11.5
Waste water - discharged agents						
Total-N	kg	21,631	22,791	26,474	27,002	26,073
Total-P	kg	2,533	2,149	2,579	2,604	2,699
COD	kg	122,493	167,225	139,746	161,074	168,510
Detergents	kg	1,515	1,982	2,338	2,827	1,592
Oil and grease	kg	3,220	10,621	4,791	5,966	4,538
Zinc	kg	61.0	46.0	41.3	60.3	76.5
Chromium	kg	1.0	4.5	1.4	1.2	1.8
Copper	kg	12.0	31.0	12.5	12.9	24.5
Nickel	kg	3.2	1.7	1.4	1.4	2.9
Lead	kg	0.7	0.6	0.7	0.8	1.6
Cadmium	kg	0.2	1.3	0.3	0.4	1.3
Oil and fuel spills						
0-9 litres	Number	131	143	128	99	107
10-49 litres	Number	66	115	81	88	75
50-249 litres	Number	17	6	12	21	8
250- litres	Number	3	0	4	1	0
Fuel consumption						
Petrol	m ³	58	59	48	38	38
Diesel	m ³	718	765	793	757	769
Runway de-icing						
Sand (5% urea)	kg	55,000	6,000	32,000	17,000	0
Formiate	kg	1,093,241	1,706,255	1,691,327	783,507	823,931
Aircraft de-icing						
Glycol used	m ³	530	721	796	355	313
Glycol collected	m ³	373	370	500	211	153
Herbicides						
Herbicides	litres	133	127	180	179	262

Roskilde Airport

		2004	2005	2006	2007	2008
Key figures						
Passengers	Number	33,511	32,228	32,792	32,675	30,269
Aircraft operations						
0-999 kg	Number	11,084	9,648	8,723	9,031	9,706
1.000-1.999 kg	Number	56,615	52,170	52,579	59,765	69,814
2.000- kg	Number	5,532	7,386	6,915	7,179	7,705
Total	Number	73,231	69,204	68,217	75,975	87,225
Use of runways						
03 Arrivals	% breakdown	8.1	7.5	5.3	6.6	5.5
03 Departures	% breakdown	7.7	6.7	4.9	6.3	5.2
11 Arrivals	% breakdown	33.4	34.0	32.1	28.3	30.5
11 Departures	% breakdown	27.8	27.2	26.6	24.1	27.1
21 Arrivals	% breakdown	33.5	31.5	35.0	32.8	38.4
21 Departures	% breakdown	39.7	39.2	41.0	37.2	43.3
29 Arrivals	% breakdown	25.0	27.0	27.6	32.4	25.6
29 Departures	% breakdown	24.8	26.9	27.5	32.3	25.3
Engine run-ups						
Total	Number	118	115	416	413	449
Of which idling	Number	7	6	114	78	161
Deviations	Number	1	0	2	0	2
Energy consumption						
Electricity consumption	GJ	3,121	3,134	3,344	3,392	3,288
Energy for heating	GJ	3,327	3,275	3,274	3,175	3,064
Energy consumption per m ²	GJ	1.13	1.07	1.11	1.08	1.04
Water consumption						
Water consumption	m ³	3,724	6,144	4,341	2,436	3,934
Industrial injuries						
Per 1 million working hours	Rate	15.8	15.8	0.0	0.0	18.0

Glossary

Aircraft operation: Term used in airport statistics to designate a departure or an arrival.

CO₂: Carbon dioxide.

dB: Decibel: a logarithmic unit of sound measurement. The A-weighted sound pressure level, dB(A), is often used: it is a measurement of the ability of the human ear to perceive sound energy.

Degree days: The degree-day figure for the year is the sum of all degree days of the year. The degree-day figure for a day is calculated as 17 degrees centigrade less the mean temperature of the day if less than or equivalent to 17 degrees centigrade. Otherwise the degree-day figure is 0.

De-icing: Removal of ice and snow from paved areas at the airport or removal of ice from aircraft wings.

Detergents: Added to washing and cleaning agents to lower the surface tension of water.

Engine testing: Testing of aircraft engines during inspection and repair. Testing is either an engine run-up (start and running of the engine above idle power) or an idle-run (start and running of the engine at idle power).

Formiate: Chemical used for de-icing runways and taxiways.

GJ: Giga Joule, 10⁹ Joule.

Glycol: Agent used for de-icing aircraft. Propylene glycol is used at Copenhagen Airport.

Handling: The handling of passengers, baggage, cargo, etc.

Industrial accident frequency: Number of industrial accidents per million working hours.

NO, NO₂: Nitrogen oxide.
Nitrogen dioxide.

Particulate matter: Tiny solid or liquid particles of soot, dust, smoke, fumes and aerosols.

PM₁₀: Particles with a maximum diameter of 10 µm.

PM_{2.5}: Particles with a maximum diameter of 2.5 µm.

Stands: Aircraft parking spaces for stays at the airport, with or without passenger loading bridges.

Taxiways: Paved stretches between runways and aircraft stands.

TDENL method: Total-Day-Evening-Night-Level, a method used for the continuous testing of noise exposure around airports and airfields. The method, which expresses the noise exposure in a single number, the TDENL value, is recommended by the Danish Environmental Protection Agency and is based on DENL, which is used for noise mapping of airports. DENL is the average A-weighted noise pressure level (Day Evening Night Level) during an average 24-hour period, with the addition of 5 dB for noise events between 7 pm and 10 pm and 10 dB for noise events between 10 pm and 7 am.

TJ: Tera Joule, 10¹² Joule.

Total N: Total nitrogen content.

Total P: Total phosphate content.

Ultrafine particulate matter: Particles with a diameter of less than 0.1 µm.

Urea: Nitrogen-based de-icer.

WPA: Workplace assessment.

