



GSA



Green Sustainable Airports

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The GSA partner meeting in Sandefjord



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**“It’s not easy being green” – especially in the white season.
In icy conditions, the first GSA transnational seminar was held
from 9th to 11th of February, 2011.**



Suitable for a meeting focussing on runway and aircraft de-icing procedures, the GSA partners gathered up north in Sandefjord (Norway) surrounded by a snowy winter landscape to sound the bell for the development of more sustainable winter management and operations. The numerous attendees discussed issues such

as pilot procedures and safety regulations on the runway, aircraft de-icing techniques and how to handle the water run-off with particular regards to environmental impacts.

The exchange of knowledge and expertise signifies a first step towards improving operational efficiency while simultaneously



becoming greener. In line with this concept, guest speakers have been invited to share their know-how with the GSA partnership.

Mr. Jostein Skjefstad from Oslo Airport happily agreed to take part in the winter seminar session illustrating the procedures at Norway's main airport. Oslo Airport has four times been named the most punctual airport in Europe by the Association of European Airlines (AEA), making the operational procedures even more interesting to the GSA project.

Representing FINAVIA, Ms. Heini Noronen-Juhola informed the attendees on how the winter staffs manage to tackle the challenges of long and strong winters in Finland while Mr. Patric E. Holmes shared his knowledge on aircraft de-icing at Widerøe Airlines out of an airline's perspective. The internal experts, too, revealed some of their de-icing secrets and set off the desired discussion: Is it possible to recycle glycol for the production of bio-diesel? What are the pros and cons of using sand instead of chemicals on the manoeuvring area? And are there alternatives and more sustainable ways to remove ice and snow from aircrafts? Within the next three years, these and many more questions will be dealt with and eventually answered moving closer towards green airport operations.

By comparing the airports' specific local conditions and procedures, it is the project's objective to improve winter management within the North Sea Region and derive recommendations for the harmonization of de-icing policies within Europe, ensuring safe and efficient practices at all airports.

The crowning touch to the 3-day event was an impressive demonstration of Sandefjord Airport's runway de-icing procedures and machinery. The host airport performed an excellent snowplough formation and drove its snow blower to high performance while the guests took lessons on the presented equipment. Completing the impressions on de-icing, the partner's had the pleasure to observe aircraft de-icing out of the cabin before taking off after a rewarding and instructive stay in Norway.



Continuing our efforts: The 2nd GSA partner meeting in Bremen

As part of the North Sea Region's "green" initiative, the GSA project has dedicated its efforts to the subject of noise abatement seeking to reduce as much of the undesired disturbance as possible.

Among other things, the 20th century is the age of noise." Neither the improving technology of the last century nor today's innovations were able to prove Aldous Huxley wrong.



On May 11th – 13th, 2011, the partnership gathered in Bremen (Germany) for the project's second GSA partner meeting. Focussing on the reduction of noise produced by aviation operations, the attendees had the chance to talk shop with international experts and industry peers. The project's partner airports were able to sneak a peak at Frankfurt Airport's noise reduction plans, before Alan Melrose of Eurocontrol supplied the group with valuable thought-provoking impulses from a complete different perspective. Diverse approaches to noise abatement were presented and new procedures such as continuous decent approach (CDA), dedicated runway operations, segmented RNAV approved procedures and increasing the ILS approach angle was intensely discussed. No matter the participant's professional background or the size of the airport – the panellists all agreed on the following: in aviation, noise is unavoidable.

However, close co-operation of airports, airlines, the air traffic control (ATC) and responsible authorities can make it more tolerable for the vicinity. Reviving the subject of public relations, it once again became clear that transparency is the key to effective communication. Providing data to the public through different channels such as

the Internet, regular newsletters or airport events satisfies the need of information.

Getting to understand the ATC's point of view as one of the stakeholders, a learning session was relocated into the lofty heights of Bremen's tower, while another session was used to take a closer look at Bremen's airport operations. In addition to the enjoyable expeditions, the meeting offered the opportunity to shed some light on the work's status quo. Since the last meeting in Sandefjord (Norway) on sustainable airport operations, significant progress has been made within the diverse individual initiatives: New de-icing procedures have been implemented within the last de-icing season, a bio-diesel powered ground power unit (GPU) has been invented, build and put into service, trees have been planted and new ways of energy savings are assiduously tested.

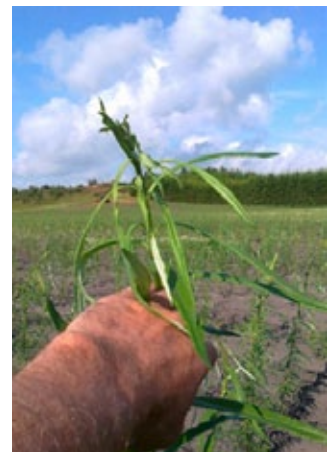
The GSA project has taken the first steps and will continue its efforts towards more sustainable airport operations. Unfortunately, the wheel cannot be reinvented and the clock will not be turned back to times before technology achieving complete silence. However, current procedures and processes will be improved to make the 21st century the age of sustainability.

What are they doing? Willow planting at Billund Airport

In early April the Department of Area Maintenance & Environment at Billund had that 'spring is in the air' feeling and started planting willows. But why? Were these trees part of the preparation for a basket weaving workshop for all personnel? No, it had nothing to do with Aprils Fools.

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– and common
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Willow is an energy crop and is planted with the aim of delivering wood chips to produce heat at a local heating plant. It is necessary - and common sense - to replace fossil energy with more CO2-friendly energy sources. That's not the only benefit. It turns out that the willow attracts a type of wildlife



and birds that fits quite well with airport operations. Airports want to minimize the risk of bird strikes. Larger birds do not like willow, while deer generally thrive on it. Moreover, it is a crop that requires little or no fertilizer. Weed control is needed in the beginning when the plants are young but this can be done mechanically – which makes willow a 'crop' that meets our groundwater protection needs as well.

So far, 15 acres of land owned by the airport has been planted with willow. In just three months the willow has grown to a height of 170 cm. The arrow can be harvested after 3 years.



Sustainable solutions at Groningen Airport Eelde

Sustainability is of great importance at Groningen Airport Eelde and the airport is currently implementing a range of 'green' alternatives. These projects are both large and small scale – covering everything from the runway extension to water-saving devices in the toilets.

To ensure the forest's authenticity in relation to its surroundings, only Dutch trees with regional gene material is being used.

In April Groningen Airport Eelde planted a forest around the airport. The young trees have been planted to compensate for the trees that will need to be removed in the future. Planting these extra trees fits in with the strategy to implement the runway

To ensure the forest's authenticity in relation to its surroundings, only Dutch trees with regional gene material is being used. Moreover, most of these trees have the characteristic that they capture extra NOx, fine dust, and CO2. And the runway



extension as sustainable as possible. The compensation model is part of the total runway plan designed by the DuraVermeer-Imtech (PASE) Consortium who will be responsible for the extension when approval has been given by the Council for States (Raad van Staten).

Compensation In total some 7 hectares of land will function as compensation area. Besides the wooded area, space has been left for a walking track, a bee hotel and for open views of historical buildings in the area. The planners have also made allowances for the most optimal infrastructure for bats as possible.

extension itself will have an environment-friendly top layer (SMA-plus). Instead of sand ashes from a recycling installation will be used to raise the runway levels.

Loading point for electrical cars This September Groningen Airport Eelde will have a loading station for electrical cars, one of four points in the municipality of Tynaarlo, where the airport is situated. Tynaarlo wants to draw attention to electrical cars and stimulate alternative forms of transport. The airport is delighted to be cooperating in this pilot – it is perfectly in line with their strategy for sustainability.

The Green Sustainable Airport project was initiated by Groningen Airport Eelde (the Netherlands). The Province of Drenthe is responsible for project management and is acting as Lead Partner in cooperation with Groningen Airport Eelde. There are 17 partners and sub-partners from 6 countries in the North Sea Region. Each partner airport acts as a platform in the region for developing, testing, producing, monitoring and displaying innovative solutions and quick wins. The airports have a role as spindle between regional authorities, knowledge institutes and the business sector.

London Southend Airport and 2012 Olympics – Clear Take Off

After being bought in December 2008 by Stobart Group there has been a marked change in the fortunes of London Southend Airport. The concept is centred on simplicity, speed and service; it's high time for an update on progress.



New control tower at London Southend Airport

London Southend Airport's new, state of the art Control Tower is now fully operational. The airport has also commissioned Selex Systems Integration to provide a new Primary Radar system. A co-located SSR (Secondary Surveillance Radar) system is also being considered to mitigate potential wind farm developments.

The Games The direct access to the Stratford Olympic Games site is one thing, but the airport infrastructure plans will also all be in place before 2012. Increased runway length, improved navigation and the new hotel make the case for scheduled, special Olympic charter and GA traffic more compelling. The airport will also sit just outside of the temporary Olympic airspace 'Prohibited Zone' giving it more flexibility for business jet users who may meet additional complications flying to some other London airports. The airport aims to have at least two new hangar facilities in place before the Olympic Games.

Train to Plane The £16M railway station, for example, opened on 18th July 2011. All of the phase 1 infrastructure will be in place in good time for the Olympics. The station sits on the London Liverpool Street to Southend Victoria line which happens also to run through Stratford, the Site of the 2012 Olympic Games in London. This positions the airport exceptionally well to serve the Games but also, and indeed more critically via Stratford to key London destinations such as Canary Wharf and via London Liverpool Street to four of the London Underground lines. The station itself has been built just 50 paces from the terminal and is connected by a wide glazed covered walkway providing a seamless experience from train to plane.

The development works continue apace and certain projects are as good as complete (tower/station/car park). The future looks bright at London Southend Airport...we're going for gold!

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