

Business Plan

2012-2016

Business Plan 2012-2016

NAVIAIR

Air Navigation Services

Aiming even higher

In 2011, we celebrated our first anniversary as a company owned by the Danish state. The first year with the new status was sound and dynamic, with many positive changes and solid growth. This was primarily because we moved a good deal closer to our strategic objectives during the year.

The partnership with LFV in Sweden in our jointly owned company NUAC HB was developed in earnest. According to the plan, NUAC will take over the operation of en route traffic in joint Danish-Swedish airspace (Danish-Swedish Functional Airspace Block (FAB)) from mid-2012. This means that a total of 750 employees will shortly be on secondment from LFV and Naviair to NUAC. Many of the employees will operate the three Air Traffic Control Centres (ATCCs) in Copenhagen, Malmö and Stockholm, which will also be on secondment to NUAC. The first 160 employees were seconded to NUAC already at the beginning of 2011, when NUAC took over responsibility for operational support.

The purpose of NUAC is to harmonise and ensure the efficiency of Air Traffic Management (ATM) in the Danish-Swedish Functional Airspace Block (FAB). Considerable savings will be made in the years to come via a number of initiatives that make use of the advantages of shared operation. The initiatives will also benefit the environment because new procedures in the Danish-Swedish FAB will mean shorter flight times and thus lower fuel consumption and lower CO₂ emissions. As early as November 2011, we introduced Free Route Airspace (FRA) so that airlines can now always fly the shortest direct route through Danish-Swedish airspace. From 2016, the NUAC initiatives will deliver total savings for Danish-Swedish en route airspace of EUR 13 million per year and cut CO₂ emissions from air traffic in Denmark and Sweden by at least 52,000 tonnes per year.

Through NUAC we have thus already met a number of important targets in the EU Single European Sky (SES) programme. Together with LFV, we remain one of the leading Air Navigation Service Providers (ANSPs) in Europe in

relation to achieving the EU targets for the development of ATM in Europe. The Danish efforts have won praise from the EU, among others. The EU Commission's FAB Coordinator, Georg Jarzembowski, highlighted Naviair and LFV as textbook examples of good, progressive development of ATM in Europe when he reported to the European Parliament in spring 2011.

The top priority of our strategy is for the ATM partnership in Danish-Swedish airspace to succeed. However, we have even higher ambitions in the long term in relation to our harmonisation and efficiency enhancement work. Together with LFV in Sweden, NATS in the UK and IAA in Ireland, we are in the process of analysing the advantages and potential of a joint ATM partnership covering both the Danish-Swedish FAB and the UK-Irish FAB. The initial analyses of the FAB 4 project, as this is called, are expected to be completed in summer 2012.

Naviair is also a participant in the Borealis project, in which we are exploring the more long-term potential to create a joint airspace block covering large parts of Northern Europe.

Another area with high priority in our strategy is international collaboration on the development of technical-operational systems. With LFV, IAA and Thales (as technical supplier), we were pioneers when we established the COOPANS cooperation five years ago to develop and harmonise our ATM systems. The cooperation has been such a success that both Austro Control in Austria and Croatia Control in Croatia have since seen the advantages of joining by paying the founding members to do so.

It is estimated that the cooperation enables the partners to save approximately 30 per cent of their development costs compared with the costs each partner would incur if it had to carry out development independently. The first tangible result of the cooperation came when IAA upgraded its ATM systems with COOPANS Build 1 in 2011. Naviair and LFV will implement similar system upgrades in 2012 and the next generation of upgrades has already been fully developed.



The COOPANS cooperation thus ensures that we keep Naviair at the highest, most modern level of ATM systems in Europe.

We are also involved in international collaboration in the area of training. Together with LfV and Norwegian Avinor, we operate the Entry Point North (EPN) ATS training academy, which is headquartered in Malmö. The academy's teaching model has ensured a high pass rate, among other things, and the Scandinavian teaching methods are now attracting serious international interest. In 2011, EPN and HungaroControl in Hungary set up a new ATS training academy, Entry Point Central (EPC), in Budapest.

We are thus constantly aiming higher in terms of all our sub-strategies for international collaboration. At the same time, we are working to develop new strategic initiatives that can strengthen Naviair and create growth in our core areas: En route - Denmark, En route - Greenland, Local Air Traffic Services (ATS) and Services.

Both existing and new strategic initiatives will be implemented within an entirely new framework for the operation of our business. From 1 January 2012, Naviair is subject to a performance scheme under the EU Regulation laying down a performance scheme for air navigation services and network functions. Naviair expects that, for Denmark after 2014, it will not be possible to offset any under-/ over-recoveries from the years 2012-2014 via subsequent adjustment of the charges for our services. With the new framework, we now have to meet a number of requirements for performance development in safety, capacity, environment and cost efficiency. The performance scheme is based to some extent on financial incentives. ANSPs with positive results may have a limited financial bonus, whereas ANSPs with negative results must cover them themselves. In addition to financial incentives, the performance scheme may mean requirements for action plans for ANSPs.

At Naviair, we find the new framework inspiring and believe it will help both enhance efficiency and create increasingly sustainable development of ATM in Europe. We are convinced that we can meet the new requirements. We continue to have the highest standard of safety and are also able to deliver the capacity that airlines demand at a cost level that is reasonable compared with our service standard.

Although aviation continues to be affected by the global economic crisis, in recent years we have seen signs of growth, indicating that, in the years to come, we will return to a level of air traffic on a par with that before the crisis began in 2007. This will, of course, have a positive effect on Naviair's financial position. However, the most important asset for business success in the future naturally remains our employees. Naviair's success and development are primarily based on their hard work, willingness to change and expertise. With a solid strategy on the right track and committed, talented employees, Naviair will maintain its position among the best in our industry.

Our business plan describes our strategy as well as our plans for the future and the business initiatives we will prioritise in the next five years. The plan also contains an overview of the framework for our activities and the customers we work for.

Enjoy!

Morten Dambæk
CEO

Anne Birgitte Lundholt
Chairman



Strategic platform

Naviair is a company owned by the Danish state represented by the Danish Ministry of Transport.



To achieve our mission and help us achieve our vision, we have formulated three sub-strategies each of which will set us on our course. To achieve our objectives, Naviair will:

create value for society and our customers, continually develop our company, and have talented, committed and motivated employees.

Mission

Naviair contributes to the creation of value and welfare for society by developing and providing safe and efficient Air Traffic Management (ATM), fulfilling our role as a vital part of the aviation value chain.

Vision

We will always be among the best ANSPs in Europe.

We will continually develop our company and secure a strong position with customers and partners by participating in international alliances.

We will achieve our ambitions through talented, committed and motivated employees who thrive on working in a demanding environment in which targeted employee development and involvement form the basis for maintaining an attractive workplace.



The three sub-strategies

Creating value for society and our customers

Naviair contributes to the creation of value and welfare for society by developing and providing safe and efficient ATM, fulfilling our role as a vital part of the aviation value chain. Naviair will always focus on supporting customer needs to secure the company's long-term existence. We will therefore continuously strengthen and develop customer relations through close collaboration focusing on safety, quality and price to ensure that Naviair's services optimally support our customers.

One way in which we create value is by developing and strengthening NUAC HB, which, in 2012, will integrate ATM services into a Danish-Swedish FAB. Through joint coordination of air traffic, we will also secure the basis for environmental and climate improvements.

- We will maintain our high safety standards and at the same time continually develop our capacity level and improve efficiency.
- We will support airline and airport growth through increased cooperation and joint planning.
- We will focus on financial responsibility, efficiency and being cost-conscious.
- We are environment-conscious and continually strive to achieve climate improvements in aviation.

Developing the company

Naviair will develop continually and maintain a strong position with customers and partners by participating in international alliances.

Naviair provides air navigation services and technical maintenance. These services must be continuously developed and made attractive to both existing and new customers. We will strengthen European cooperation within air navigation services and relations with the Danish Transport Authority, the military and DMI to provide the basis for our sustained growth and development.

We will cement and develop our market position in Denmark and Europe through strategic partnerships such as NUAC, COOPANS, Borealis and EPN. Broad, solid partnerships are essential to provide the necessary strength in relation to other players in the market.

We will strengthen our technical and operational development via international collaboration with other companies. This collaboration comprises procurement and supply chain management.

- We will develop closer cooperation with our North European industry counterparts via NUAC, EPN, COOPANS, FAB 4, Borealis and NORACON.
- Modelling our efforts on COOPANS, we will form new alliances with other partners and suppliers.
- We will provide technical and operational services to Danish airports and enter into technical strategic partnerships.
- Based on specific needs analyses, focused tender procedures and tight supply chain management, we will invest in automated and standardised systems.



Talented, committed and motivated employees

Naviar is a workplace that offers good professional and personal development opportunities and is able to both retain and attract talented and committed employees. This requires employee engagement. We want employees who thrive in a demanding workplace.

Naviar will continuously develop management, organisation and employees in such a way as to develop positive relations, generate results and promote job satisfaction.

We will implement targeted development of employee culture and skills to ensure that we always focus on safety, capacity and efficiency in our provision of air navigation services.

The ambition to retain our leadership position among the safest and most efficient Air Navigation Service Providers (ANSPs) in the industry requires ongoing development that determines responsibilities, influence, involvement and skills – as well as standards and rules.

- We will ensure that our employees always have the right skills and motivation to support our core business.
- We will continually strengthen leadership skills through skills development and supplementary training, mutual sparring and involvement in the strategic development and management of the company.
- We will ensure ongoing development in four areas: Requirements concerning leadership, Culture, Skills and Communications.
- We will ensure that our employees bear our strategies in mind, adhere to our values, and pursue our focus areas.

Critical success factors

To ensure that we achieve our long-term objectives, we have determined a number of critical success factors (CSFs). They form the basis for the specific key performance indicators (KPIs) that we have defined to ensure that we remain focused on achieving our strategic objectives.

Safety

At Naviair, we always maintain a high level of flight safety.

Capacity

At Naviair, we ensure that we have adequate capacity and handle air traffic with a minimum of delay.

Efficiency

At Naviair, we make optimum use of our resources.

Environmental responsibility

At Naviair, we ensure handling of air traffic that reduces air pollution and minimises noise.

Financial responsibility

At Naviair, we are financially responsible in all respects and we are cost-conscious.

Development

At Naviair, we constantly strive to develop all our areas of activity via alliances, harmonisation and standardisation.

Attractive workplace

At Naviair, we are positive, motivated and well-functioning, and all our employees have the right skills.



Areas of activity

Naviair provides aviation infrastructure and is therefore an important player in society. We have activities within: En route – Denmark, En route – Greenland, Local Air Traffic Services, and Services.

En route - Denmark

Area control services in Danish airspace from:

- ATCC in Copenhagen
- Tower in Roskilde
- Tower in Billund
- Tower in Århus
- Tower in Aalborg

Approach control service to Copenhagen Airport from:

- ATCC in Copenhagen

Briefing service from:

- ATCC in Copenhagen

Flight Information Services (FIS) from:

- ATCC in Copenhagen

Technical service and maintenance of ATM/CNS equipment in Denmark:

- Radar installations in Denmark
- Communications systems in Denmark
- ATM equipment in Denmark

En route - Greenland

Briefing service from:

- Flight Information Centre (FIC) in Kangerlussuaq

Flight Information Services (FIS) from:

- FIC in Kangerlussuaq

Technical service and maintenance of CNS equipment on the Faroe Islands and in Greenland:

- Radar installations on the Faroe Islands
- Navigation and communications systems on the Faroe Islands and in Greenland

Local Air Traffic Services (ATS)

Aerodrome control service from:

- Tower in Copenhagen
- Tower in Roskilde
- Tower in Billund
- Tower in Århus
- Tower in Aalborg
- Tower on Bornholm

Approach control service to airport from:

- Tower in Roskilde
- Tower in Billund
- Tower in Århus
- Tower in Aalborg
- Tower on Bornholm

Aerodrome Flight Information Service (AFIS) from:

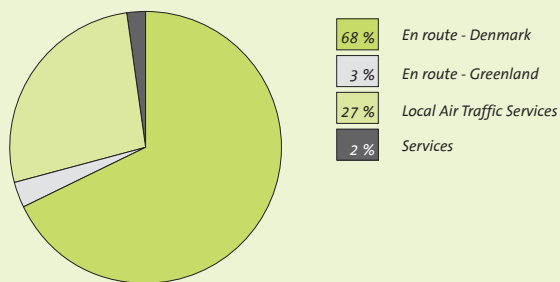
- Tower on Vágar

Services

Sale of technical service and maintenance of ATM and airport CNS equipment from:

- Technical station in Copenhagen
- Technical station in Billund
- Technical station in Aalborg

Naviair's revenue by area of activity

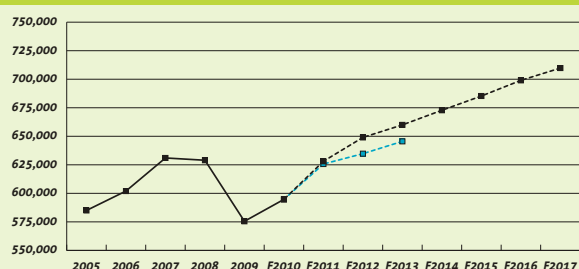


En route - Denmark

En route charges for flights in Danish airspace represent by far the largest portion of Naviair's revenue. Following the downturn in the period 2001-2003, the revenue base has shown a moderately rising trend, albeit at a significantly lower level than the average European rate of increase. The traffic volume in Denmark plummeted in 2009, declining by up to 12 per cent compared with 2008. The traffic volume only started recovering in 2010 and is approaching the 2007 level. These major fluctuations in revenue challenge Naviair's long-term objective of providing ATM at a stable, lower unit cost.

Naviair's en route traffic outlook is based on Eurocontrol's forecasts (STATFOR). Eurocontrol adjusted its growth outlook for the period until 2013 downwards in December 2011. Against that background, en route traffic in 2012 is expected to be approximately 1.4 per cent ahead of 2011. The figure below shows the expected development in en route traffic:

Development in traffic - En route



EUROCONTROL Forecast of Annual Number of IFR Flights (2011-2017) from 19 September 2011

EUROCONTROL Short-Term Forecast, December 2011 (2011-2013) from 23 December 2011

En route - Greenland

In Greenland, Naviair provides flight information and alerting services in the airspace up to FL 195 (19,500 feet). These services are provided from the FIC in Kangerlussuaq.

In the case of the airspace above FL 195, Air Traffic Control (ATC) of the northern sector has been outsourced to Icelandic ISAVIA and is provided from Reykjavik in Iceland, while ATC of the southern sector has been outsourced to Nav Canada and is provided from Gander in Canada. Naviair provides the technical equipment in Greenland that is used by both Nav Canada and ISAVIA. Furthermore, we operate Search & Rescue (SAR) services over Greenland from the Air Rescue Coordination Centre (ARCC) in Kangerlussuaq. Lastly, we provide CNS services from Kangerlussuaq, where we operate the national COM centre. From this centre, we monitor international and national ATS network.

Local Air Traffic Services (ATS)

Our largest customer in this area is Copenhagen Airports A/S, from whom we expect a 2.1 per cent increase in air traffic in 2012.

However, based on the development in air traffic in 2011, we do not expect any changes in the rate of growth for Billund and the other airports. Naviair is taking every possible measure to support aviation in Denmark by ensuring a high level of capacity and efficiency at the towers in Denmark.

Based on trends in other countries, we expect competition in local ATS to intensify in future. Via an organisational change in 2011, Naviair has therefore established a dedicated tower organisation to enable it to cope with the expected competition.

Services

Naviair's operation and maintenance of mainly CNS equipment for third parties, such as airports, are a key parameter in Naviair's efforts to cut its unit costs.

This area is an excellent supplement to Naviair's core activities and facilitates optimum utilisation of resources.

This area is expected to show steady growth.

Customer base

Naviair strives to provide the best service to our customers at all times and at the lowest possible price.

Airlines

The financial crisis has led to considerable reductions in air traffic and serious losses for the aviation industry since 2008. This has led to a significant decline in revenue for Naviair, which, despite declining revenue, has to ensure that it has both adequate resources and modern, updated technical equipment to meet customer requirements concerning high service standards and efficient ATM. Accordingly, a 10-12 per cent decline in air traffic and revenue cannot be directly matched by a similar reduction in costs. Notwithstanding this, our efforts to cut our costs and at the same time identify new ways of minimising airline ATM costs have continued apace during the crisis.

Air traffic rose again in 2011. This had a positive effect on Naviair's earnings. However, earnings are affected by opposing factors: airlines are using heavier aircraft, on average, but the average flight time/distance through Danish airspace has been reduced. For optimum cost efficiency and the lowest possible charges, we continue to focus on being cost-conscious. We continuously strive to identify and implement new efficiency-improving initiatives without compromising on safety and service.

Airports

Copenhagen Airport needs to maintain its international status as a North European hub to ensure that the Øresund Region remains a dynamic growth region. To that end, it is important that customers do not deselect Copenhagen Airport in favour of airports in other countries. As a subcontractor, we therefore strive to ensure that traffic is managed safely and efficiently to make Copenhagen Airport an attractive airport. At the same time, Naviair's performance in the environmental and climate areas is instrumental in making Copenhagen Airport a fuel-efficient – and therefore CO₂-saving – option for airlines.

The regional airports play a key role both to the continued development of aviation in Denmark and to the sustained efficiency of domestic aviation. It is important that the Danish airports continue to be able to attract air traffic in competition with other modes of transport. To that end, the airports must continuously do their utmost to minimise their costs. As a subcontractor to these airports, we focus on keeping the price of our services as low as possible.

Danish Defence

During the 1990s and the first half of this decade, Danish Defence has evolved from having as its primary role to defend Denmark and uphold its sovereignty to undertaking humanitarian and international tasks. At the same time, Danish Defence has fewer aircraft today. This has led to a change in the way in which Danish Defence uses Danish airspace, particularly for training purposes. The structure of training areas in which civil air traffic is separated from Danish Defence activities has therefore changed.

Naviair is in close contact with Danish Defence and continuously coordinates activities taking place in Danish airspace so that the requirements of Danish Defence can be met with the least inconvenience to civil air traffic.

DMI

Naviair provides technical services to DMI on a contract basis. The main areas are service and maintenance of airport-related meteorological equipment and weather radars.

The Naviair family

To achieve our vision and the objective of always being among the best in our industry, Naviair's business model is based on strong involvement in three international alliances:

- We are integrating and improving the efficiency of Air Traffic Management (ATM) (en route) in the Danish-Swedish FAB through NUAC HB (owned jointly with LFV).
- We are developing ATCO training at the joint Nordic ATS training academy, EPN (owned jointly with LFV and Avinor).
- We are developing our ATM systems in the COOPANS alliance.

NAVIAIR

NUAC HB

(50 % ownership interest)

Entry Point North AB

(33 % ownership interest)

Entry Point Central

(51 % ownership interest)

COOPANS

Associate

International alliance
(Naviair, IAA, LFV, Austro Control,
Croatia Control & Thales)

Strategic business initiatives

Naviair is involved in a variety of business initiatives aimed at ensuring our vision of always being among the best Air Navigation Service Providers (ANSPs) in Europe. These international business initiatives are implemented under the framework of SES and SESAR.

NUAC

The Danish-Swedish FAB was declared in 2009. It is the aim of the EU for FABs to be declared across Europe. However, so far, apart from the Danish-Swedish FAB, only one other FAB has been declared – the UK-Irish FAB (2008). We have thus made great strides in our efforts to realise our part of the EU SES programme and, consequently, the objective of harmonising and improving the efficiency of ATM in European airspace.

In 2009, we established the company NUAC HB (Swedish 'handelsbolag') together with LFV. On 1 January 2011, NUAC took over responsibility for operational support comprising approximately 160 employees on secondment from Naviair and LFV.

NUAC's main task in the years ahead will be the operation of LFV's and Naviair's three ATCCs in Copenhagen, Malmö and Stockholm respectively. According to the plan, NUAC will take over the operation of en route traffic in the Danish-Swedish FAB on 1 July 2012 (Full Scale Commencement). By that time, a total of 750 employees will be on secondment to NUAC from LFV and Naviair. The ATCCs will remain LFV's and Naviair's property and be on secondment to NUAC. The co-ownership of NUAC makes Naviair well equipped to meet future requirements and expectations in our industry. At the same time, this cooperation strengthens our ability to continue to implement efficiency improvements and cost reductions without compromising on our high safety and service standards.

Ahead of Full Scale Commencement, NUAC, jointly with LFV and Naviair, has started implementing a number of efficiency improvement initiatives that will deliver total savings of EUR 13 million annually for LFV and Naviair at the end of 2016. Viewed in isolation, NUAC's activities will thus reduce the airlines' costs for both ATM and fuel in the long term. The initiatives will also have a positive effect on the environment and the climate by cutting the companies' CO₂ and NO_x emissions.

EPN (Entry Point North)

The Nordic ATS training academy, EPN, was established in 2006. EPN is owned jointly by Avinor, LFV and Naviair. Through EPN, Naviair plays a pioneering role in the efforts to harmonise European ATCO training courses. EPN also enhances Naviair's influence on the development of both existing and future training courses for ATM personnel. Besides providing training services to its owners, EPN has been working on selling training services to other Air Navigation Service Providers (ANSPs) in Europe and beyond in recent years. Most recently, at the end of 2011, EPN concluded agreements on training of ATM personnel from Kosovo and Saudi Arabia.

When ATCO trainees have completed their training at EPN, they continue the practical part of their training in an operational environment, where they are trained in ATM and are certified as ATCOs.

In 2011, in collaboration with Hungarian HungaroControl, EPN established a jointly owned ATS training academy in Budapest on a joint venture basis. The new academy has been named Entry Point Central (EPC).

Future Hungarian ATCOs will be trained using Scandinavian training methods.

The first class of Hungarian trainees started at the academy in September 2011. Over time, it is the ambition for the new academy to offer training to ATCO trainees from other countries in the region as well.



COOPANS

Naviar's ATM system, DATMAS, is based on state-of-the-art ATM technology, and is among the most modern in Europe. The system forms the basis of COOPANS Build 1, which encompasses upgrading and harmonisation of ATM systems for Swedish LFV, Irish IAA and Naviar into an ATM system that uses the same software and harmonised technical solutions.

The COOPANS cooperation began in 2006 and has Thales as supplier and partner. COOPANS is open to new members joining, and, so far, Austro Control in Austria joined in 2010, and, most recently, Croatia Control in Croatia in 2011 as full partners.

The purpose of COOPANS is to reduce the partners' development costs by continuously upgrading the ATM system. The alternative would have been major, very costly 'big-bang migrations'. In addition, COOPANS is to harmonise operational and technical procedures in order to limit specific national functionalities. The cooperation is expected to cut system development costs by approximately 30 per cent compared with the costs each partner would incur if it had to develop the technology independently. To this should be added savings in operating expenses due to the joint work concepts.

Besides savings, the COOPANS cooperation meets the EU requirements concerning future harmonisation of Air Traffic Management (ATM) systems in Europe. This will continuously ensure that EU requirements, including performance requirements, are complied with (see Single European Sky – SES section), and be in line with the development of SESAR. COOPANS also supports industry and ICAO requirements.

COOPANS took a major step towards the realisation of a single harmonised ATM system with the implementation of Build 1 in the ATCCs in Shannon and Dublin in Ireland in April and May 2011. Build 1 was implemented in Malmö ATCC at the beginning of 2012. Naviar will follow suit on

31 March 2012, with implementation in the ATCC in Copenhagen and the towers in Roskilde and Billund. Stockholm ATCC, which is scheduled for commissioning in autumn 2012, will complete the roll-out.

The subsequent system upgrade, Build 2, comprises development and integration of changes that are required in order for the latest members to join the COOPANS cooperation, Austro Control and Croatia Control, to be commissioned in 2013 and 2014 respectively. At the same time, the upgrades satisfy a number of necessary EU requirements. Build 2 will also be implemented at IAA, LFV and Naviar, so that the ATM system is continually updated and harmonised at all five ANSPs in the COOPANS cooperation.

Build 3 is expected to be commissioned in the period 2014-2015. The COOPANS cooperation continuously ensures that the development under SES and SESAR is continually followed up on and that all new EU requirements are met.

NORACON

(NORTH European and Austrian CONSortium)

NORACON is a consortium that cooperates on participation in the SESAR programme (see section on European framework). NORACON was established in 2009 and consists of eight European members: Austrian Austro Control, Norwegian Avinor, Finnish Finavia, Icelandic ISAVIA, Swedish LFV, Irish IAA, Estonian EANS and Naviar. The NORACON consortium is a formal member of SJU (see section on European framework). Through NORACON, Naviar is therefore able to influence decisions on the pan-European development in the technical-operational area. At the same time, through NORACON, the partners have protected their long-term strategic investments in a SESAR perspective. This is achieved under the informal A6 umbrella group, which consists of members from Spain, Italy, France, Germany and the UK as well as the NORACON consortium.

The A6 group is tasked with reconciling ANSP views in relation to important SESAR areas in connection with the



development in the industry, SJU strategies and priorities and the relationship with the operational environment. It has been decided that the NORACON consortium is to be active in the A6 group in the ATM research and development area. Furthermore, special emphasis is placed on the necessary coordination with relevant partners to underpin this strategy, including especially NATS and DSNA.

Via the work in NORACON and A6, Naviar will also follow up on and influence the preparation for the SESAR implementation phase, which is expected to run from 2014-2020.

FAB 4

In 2011, Irish IAA, Swedish LfV, UK NATS and Naviar established the so-called FAB 4 project. The project is exploring the possibilities of closer cooperation on ATM in the airspace over Denmark, Sweden, the UK and Ireland. The aim is to enhance ATM efficiency in this area.

The possibility of combining the only two European FABs to date – the Danish-Swedish and the UK-Irish FABs – forms part of the project analyses.

A preliminary study already completed has shown that genuine cost reductions and enhanced efficiency would be possible in a cooperation.

The subsequent analyses and proposals for models for cooperation and integration are expected to be ready in summer 2012.

Borealis

Naviar collaborates with several of its North European counterparts on coordinating ATM in the Borealis cooperation. The other members of Borealis are Norwegian Avinor, Finnish Finavia, Icelandic ISAVIA, Swedish LfV, Irish IAA, Estonian EANS, UK NATS and Lithuanian LSG.

With a long-term vision to establish one, large, joint North European airspace, the partners embarked on the Borealis project in 2011. Borealis will initially investigate the possibilities of establishing a more formal, binding alliance that is to replace the previous, informal cooperation.

The partners will discuss the Borealis findings in 2012.

Environmental and climate initiatives

Like all other modes of transport, aviation has both an environmental and a climate impact. Aviation today accounts for 2-3 per cent of global air pollution. Naviair is committed to ensuring that the environmental and climate impacts

in our part of the aviation value chain are reduced. We therefore continuously strive to reduce the impact of our activities by developing our procedures and technology.

Noise

Naviair plays an active part in helping to reduce noise at and around the airports at which we are responsible for ATM. Noise inconvenience is reduced through traffic procedures as well as landing and take-off restrictions at these airports.

CO₂ and NO_x

Aviation accounts for approximately 2 per cent of global CO₂ emissions (IPCC 2007). Naviair helps to cut CO₂ and other polluting gases by continuously developing efficiency-improving procedures and infrastructure systems. This ensures partly that aircraft take the most direct route between destinations and fly at the most fuel-efficient altitude for each type of aircraft, and partly that aircraft take off, land and operate on the ground at the airports with the lowest possible fuel consumption.

Aviation safety is naturally always given top priority in ATM. While maintaining the highest standards of safety, Naviair has succeeded in optimising its ATM and implementing initiatives in the last few decades that are sustainable as regards the climate.

ATM is optimised by prioritising a service-minded culture, developing efficient traffic concepts and making flexible use of airspace. Against this background, we use the most efficiency-improving and climate-friendly traffic concepts recommended by the European aviation organisations.

Naviair analyses and works with the development of climate-friendly traffic concepts both in Free Route Airspace (FRA), Continuous Climb Departures (CCDs), Continuous Descent Approach (CDA) and Required Navigation Performance (RNP).

In November 2011, jointly with LfV, we introduced FRA in Danish-Swedish airspace. This means that airlines can now choose the shortest direct route through our airspace already at the planning stage. This will allow airlines to reduce the volume of aircraft fuel used and to reduce the aircraft's starting weight. Against the background of simulations performed by Eurocontrol for Naviair and LfV, it has been calculated that FRA will cut CO₂ emissions in the airspace by approximately 40,000 tonnes per year, overall. Using CCDs for departures from Copenhagen Airport saves the environment from emissions of approximately 32,000 tonnes of CO₂ annually and the airlines fuel consumption of approximately 10,000 tonnes annually. Naviair's climate-friendly CCD action was documented by Eurocontrol in 2009. Our concept means that more than 95 per cent of departing flights are given permission to deviate from the Standard Instrument Departure (SID) procedure. Instead, they use Naviair's special CCD procedure, where aircraft are given permission to climb directly to their preferred cruising level and to head directly for their destination as quickly as possible during the departure procedure.

The CDA concept allows pilots to plan the most fuel-efficient and climate-friendly approach to airports from the aircraft's cruising level to landing. This allows the pilot to optimise the use of engine power during the last part of the flight. At airports with a high traffic density, it may be difficult to implement CDA and at the same time maintaining high capacity with optimum density between departing and landing aircraft. But during periods of low traffic intensity, it is possible to use the concept – without CDA hampering the possibility of maintaining the high proportion of CCDs. In 2009, more lenient level restrictions for approaches to Copenhagen Airport were introduced, enabling airlines to implement approximated CDAs.



We work closely together with our customers and partners on the continued development of new initiatives that can optimise our environmental and climate performance. For example, we are following with interest the testing of RNP procedures at Landvetter Airport near Gothenburg. RNP provides the basis for automated, short precision approaches, which are expected to yield considerable fuel savings. If the test is successful, we will consider developing RNP procedures for a coming integrated terminal area in the Øresund region, comprising Copenhagen Airport.

Climate strategy

We strive to align our climate efforts to customer wishes and needs at the same time as participating in the environmental and climate work in SES, SESAR, NUAC, NEAP, COOPANS and NORACON.

Based on Eurocontrol's and IATA's joint Flight Efficiency Plan, we will continue to develop and ensure flexible utilisation of airspace by means of:

- Short routes, direct routes to destinations and fuel-efficient altitudes.
- The option of fuel-efficient approaches to Danish airports.
- Minimal ground delays with engines idling through efficient ATM at airports.
- CCDs wherever possible – with direct routes and climbs to cruising level.

European framework

The EU Member States and a number of other European countries have jointly committed to harmonising and integrating European ATM into a single airspace. (Single European Sky). This will mean that ATM across Europe will be subject to the same framework and development targets.

Single European Sky – SES

The EU aims to integrate ATM in Europe into a single airspace (Single European Sky). The aim is to improve efficiency, create a more cost-efficient ATM system and ensure environment-friendly handling of air traffic in Europe. The EU targets are set out in the Single European Sky (SES) legislative package from 2004 and various amendments to it in the SES II legislative package from 2009. SES is thus based on EU legislation and will be a key driver of the air traffic sector's future organisation, structure and economy.

The EU legislation includes the following requirements:

- The many geographical areas based on state boundaries must be combined to form a few large FABs. These joint airspace blocks must be established no later than December 2012 and take into account a number of requirements concerning improvement of, among other things, efficiency and flexibility.
- Implementation of performance-based rules with requirements that are governed by actual performance targets to be set and tested in 2012-2014, the so-called first reference period (RP1), followed by similar, but five-year, reference periods (see section on Performance scheme).
- Transfer of powers and responsibilities relating to safety in the ATM area to the European Aviation Safety Agency (EASA).
- Significant changes to and trimming of Eurocontrol's management, structure and tasks, with a clear distribution of responsibilities between the European Commission, EASA and Eurocontrol. The European Commission has the overall authority role; EASA is responsible for aviation safety, while Eurocontrol's main task is to support the European Commission and Member States with expert assistance on regulatory matters, etc. For example, from 2012, Eurocontrol will take care of the overall coordination via its function as Network Manager controlled via a Network Manager Board with a variety of industry players as stakeholders.
- Implementation of environmental rules and regulations.



The regulations mean that the European Commission, Eurocontrol and EASA will be the main drivers of the development and progress of the processes that are to create a single European airspace (Single European Sky).

Naviar participates in a national working group that assists the Danish Transport Authority in determining Denmark's position on the implementing rules and comments on legislative proposals both here and through its international trade association, CANSO.

Performance scheme

In July 2010, the European Commission adopted a regulation laying down a performance scheme for air navigation services and network functions (Regulation No. 691/2010) that is to contribute to sustainable development of the ATM system by improving the performance of Air Navigation Service Providers (ANSPs). The performance scheme is the result of the Single European Sky legislation through which the EU aims to ensure both more efficient utilisation of airspace above Europe and sufficient capacity in airspace for the growing volume of air traffic. Another objective is to cut CO₂ emissions and the cost of air navigation services.



The performance improvements will be achieved by the setting of EU-wide, FAB-wide and nationwide performance targets. ANSPs will be measured on their performance. ANSPs that do not satisfy the performance requirements may be subject to corrective action. The targets are legally binding on EU Member States.

The EU-wide performance targets will be adopted by the European Commission and used to prepare a performance plan for each national airspace (nationwide performance targets) or for the Functional Airspace Block (FAB) of which the national airspace is a part (FAB-wide performance targets). The first reference period (RP1) of the performance scheme runs for three calendar years from 2012 to 2014 and comprises the en route area only. The subsequent reference periods, which also comprise charges related to terminals and airports (Terminal Navigation Charges), run for five calendar years from 2015.

The performance scheme is based, to some extent, on financial incentives to encourage ANSPs to meet the targets set.

Performance targets will be set in the following four areas: Safety, Capacity, Environment and Cost efficiency. The targets for the Danish-Swedish FAB and Naviair/Denmark in RP1 are shown in Appendix 2. No environmental targets have been set in RP1.

Single European Sky ATM Research - SESAR

SESAR is the EU's programme for development of the new generation of a European ATM system. The programme combines technology with operational, financial and legislative aspects. In 2009, the EU Council of Ministers adopted a European ATM Master Plan covering the period up to 2020. According to the plan, the new generation of the European ATM system must be implemented in the period from 2014 to 2020.

To manage and develop SESAR, initially until 2016, a joint undertaking has been established, SESAR Joint Undertaking (SJU). SJU has the form of a Public-Private Partnership (PPP). The members are: the European Commission, Eurocontrol and the aviation sector (including a number of ANSPs). Each member has one third of the seats and bears one third of the costs. Naviair participates in SJU's work through NORACON (see the section on Naviair's strategic business initiatives).

The SESAR definition phase, which is scheduled to run from 2013 to 2020, is at the preparation stage. No decision has been made as yet as to how and under what auspices this phase will be implemented. It is thus uncertain whether SJU's work schedule can be extended beyond 2016, meaning SJU will also govern the implementation of SESAR, or whether other solutions will have to be found for the definition phase.

Appendices

Five-year summary

Safety	2007¹⁾	2008¹⁾	2009¹⁾	2010	2011
Number of incidents per 100,000 operations in categories A, B and C directly attributable to Naviair	1.55	1.77	1.20	1.05	1.79
Availability – ODSs in control centre	99.9%	99.8%	99.9%	99.9%	100.0%
Availability – radar coverage	100%	100%	100%	100%	100%
Availability - radio/emergency radio systems	100%	100%	100%	100%	100%
Capacity	2007¹⁾	2008¹⁾	2009¹⁾	2010	2011
Average delay in minutes per operation in ACC	0.1	2.2	0.0	0.0	0.0
Average delay in minutes per operation in Tower/Approach	0.1	0.9	0.0	0.0	0.0
Efficiency	2007¹⁾	2008¹⁾	2009¹⁾	2010	2011
Disposition efficiency - En route	7,218	6,392	7,268	7,688	8,216
Disposition efficiency – Tower/Approach	4,327	4,360	4,708	4,819	5,076
Administrative and technical productivity	1.9	1.8	2.0	2.2	2.5 ²⁾
Financial performance	2007¹⁾	2008¹⁾	2009¹⁾	2010	2011
Operating income from ordinary activities (DKK million)	758.8	868.8	828.0	970.0	984.5 ³⁾
Staff costs (DKK million)	502.3	536.4	539.2	535.8	536.1 ³⁾
Other operating expenses (DKK million)	211.4	249.8	244.2	252.2	241.1 ³⁾
Environment	2007¹⁾	2008¹⁾	2009¹⁾	2010	2011
Noise inconvenience	1	0	0	2	0

¹⁾ Comparative pre-2010 figures are based on Naviair's operations as a state enterprise.

²⁾ From 2011, administrative and technical productivity is in accordance with the ACE definition.

³⁾ Estimated figures for 2011.



Performance scheme – First reference period (RP1)

Danish-Swedish FAB	2012	2013	2014
<i>Safety</i>			
Separation minima infringements per 100,000 flying hours, categories A and B with direct ATM involvement, for Danish and Swedish airspace.	1.49	1.45	1.42
<i>Capacity</i>			
Minutes of en route ATFM delay per flight	0.20	0.15	0.08
Naviair/Danmark	2012	2013	2014
<i>Cost efficiency</i>			
Naviair - Determined cost (mio. DKK) ¹⁾	640.40	666.44	673.53
Naviair - Determined unit rate (EUR) ²⁾	51.70	52.85	50.42
Denmark - Determined unit rate (EUR) ³⁾	63.14	64.20	61.51
User rate (EUR)	71.52	73.52	75.49

¹⁾ "Naviair - Determined cost" is Naviair's share of the cost base.

²⁾ "Naviair - Determined unit rate" is Naviair's share of the user rate, excl. over-recovery/under-recovery.

³⁾ "Naviair - Determined unit rate" is Denmark's share of the user rate, excl. over-recovery/under-recovery (Naviair, DMI, the Danish Transport Authority and costs for Eurocontrol).

Abbreviations and designations

A6: ANSPs that are members of SJU

ANSP: Air Navigation Service Provider

ATM: Air Traffic Management

Austro Control: ANSP Austria

Avinor: ANSP Norway

CANSO: The Civil Air Navigation Services Organisation

CCD: Continuous Climb Departure

CDA: Continuous Descent Approach

CNS: Communications, Navigation and Surveillance

COOPANS: CO-Operation of Air Navigation Service providers

Croatia Control: ANSP Croatia

DMI: Danish Meteorological Institute

DSNA: ANSP France

EANS: ANSP Estonia

EASA: European Aviation Safety Agency

EPC: Entry Point Central (ATS training academy owned by EPN and HungaroControl)

EPN: Entry Point North (Nordic ATS training academy)

EUROCONTROL: European Organisation for the Safety of Air Navigation

FAB: Functional Airspace Block

Finavia: ANSP Finland

FRA: Free Route Airspace

HR: Human Resources

HungaroControl: ANSP Hungary

IATA: The International Air Transport Association

ICAO: International Civil Aviation Organization

IPCC: Intergovernmental Panel on Climate Change

ISAVIA: ANSP Iceland



IAA: Irish Aviation Authority

CSF: Critical Success Factor

LFV: ANSP Sweden

LSG: ANSP Latvia

NATS: ANSP UK

NEAP: North European ANS Providers (North European strategic cooperation)

NORACON: NORTH European and Austrian Consortium (North European technical cooperation)

NUAC HB: Nordic Unified Air traffic Control. NUAC HB is a jointly owned company under LFV and Naviair. NUAC HB will be responsible for ATM in joint Danish-Swedish airspace from 2012.

RNP: Required Navigation Performance

RP1: First reference period of the 2012-2014 performance scheme

SES: Single European Sky (EU initiative to unify European airspace)

SESAR: Single European Sky ATM Research programme (EU programme on development of the new generation of an integrated European ATM system)

SID: Standard Instrument Departure

SJU: SESAR Joint Undertaking (EU Commission initiative designed to develop the new generation of a European ATM system)

Tower: Control tower



Indhold

<i>Aiming even higher</i>	<i>2</i>
<i>Strategic platform</i>	<i>5</i>
<i>The three sub-strategies</i>	<i>6</i>
<i>Critical success factors</i>	<i>8</i>
<i>Areas of activity.....</i>	<i>9</i>
<i>Customer base</i>	<i>11</i>
<i>The Naviair family</i>	<i>12</i>
<i>Strategic business initiatives</i>	<i>13</i>
<i>Environmental and climate initiatives.....</i>	<i>16</i>
<i>European framework.....</i>	<i>18</i>
<i>Appendices</i>	<i>20</i>
<i>Abbreviations and designations.....</i>	<i>22</i>

*Business plan 2012-2016
was published by Naviair in
February 2012.*

Editors:

*Business Development and
PR & Communications*

*The business plan can be down-
loaded at www.naviair.dk*

