



Business Plan 2015-2019

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Focus on cost efficiency, development and consolidation

From 2015, the Air Traffic Management (ATM) industry in Europe will have to meet a number of new requirements. These are part of the EU Single European Sky programme, which entered the second reference period of the programme (RP2) at the beginning of the year. At Naviair, we are entering this new period with optimism and the conviction that we will be able to meet the requirements, just as we did in RP1 from 2012-2014.

We have begun the new period by reducing our en route price by 11.3 per cent. This is such a significant reduction that percentage-wise Naviair accounts for the biggest reduction in Europe for 2015.

The price reduction is a sign of how clearly we are focusing on complying with customers' wishes for ever-lower prices and is also a result of our consistently strict financial management. We will of course maintain both our high safety level and efficient ATM, which will ensure the usual high level of regularity.

We expect to be able to reduce our prices for En route still further between now and 2019, even though we have already made this very large

reduction right from the beginning of the period so that customers can enjoy the lower price for the longest possible time.

Over the next few years, we will continue to consolidate the initiatives we have already been working on for a number of years. On the basis of strict cost management, we will continue to play our part in harmonising and increasing the efficiency of European ATM.

We will do this partly by optimising the utilisation of the en route airspace in the Danish-Swedish airspace block, for example by extending Free Route Airspace to the entire Nordic area and by establishing a new cross-border terminal area around Copenhagen and Malmö airports.

We are also heavily involved in the unique COOPANS Alliance on the joint development, harmonisation and upgrading of technical systems at five European Air Navigation Service Providers (ANSPs). As a result of this cooperation, the systems in the Copenhagen control centre have now been harmonised with the systems in six other control centres in five European countries.

We will also continue to work on improving the efficiency of ATM in the North Atlantic area. In Greenland, we successfully moved our flight information centre from Kangerlussuaq to Nuuk in autumn 2014.

Lastly, in the joint venture Aireon we are participating in developing and setting up the world's first global aviation surveillance system. The new system is expected to be fully operational in 2018 and will result in considerable improvements for aviation – especially over remote and unpopulated areas.

In this business plan, we set out the Naviair strategy and our targets for the future. It also details the initiatives we will be prioritising during the next five years. Lastly, the business plan includes a review of the framework for our activities and an overview of the customers we work for. The plan sets out the general direction for Naviair for the period 2015-2019, but we will of course continually adapt to any new demands arising along the way.

Enjoy!



Morten Dambræk
CEO



Anne Birgitte Lundholt
Chairman

Strategic platform

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

To fulfil our mission and achieve our vision, we have drawn up three sub-strategies each of which sets out guidelines on how to meet our objectives in a specific area. To achieve our objectives, we 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 Air Navigation Service Providers (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 will always focus on supporting customer needs. We will therefore continuously strengthen and develop customer relations through close cooperation focusing on safety, quality and price to ensure that Naviair's services optimally support our customers. In this way we will secure Naviair's long-term existence.

One way in which we create value is by developing and strengthening NUAC, which operates the Air Traffic Control Centres (ATCCs) in Copenhagen, Malmö and Stockholm on behalf of Naviair and LFV. Through joint coordination of air traffic, we also secure the basis for environmental and climate improvements.

- We will maintain our high level of safety and at the same time continually develop our capacity level and improve efficiency.
- We are working on providing our services at lower prices measured against current prices.
- We focus on financial responsibility, efficiency and being cost-conscious.
- We are environmentally conscious and continually strive to achieve climate improvements in aviation.
- We support our customers' growth through close cooperation with airlines and airports.

Developing the company

Naviair will develop continually and maintain a strong position with customers and partners by participating in international partnerships and 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 strengthen European cooperation within air navigation services and relations with the Danish Transport Authority and Danish Defence to provide the basis for our sustained growth and development.

We will cement and develop our market position through international partnerships and alliances such as NUAC, Entry Point North, Aireon and COOPANS. That will give us the strength we need in relation to the other players in the market.

We strengthen our technical and operational development through international cooperation with other ANSPs.

- Modelling our efforts on COOPANS, we will form new alliances with other partners and suppliers, where strategically expedient and positive for our business and the development of our core areas.
- We provide technical and operational services to 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

Naviair is a workplace that offers good professional and personal development opportunities and is able to both retain and attract talented and committed employees.

Naviair will continuously develop management, organisation and employees.

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

- We ensure that our employees always have the right skills and motivation to support our core business.
- We continually strengthen leadership skills through skills development and supplementary training, mutual sparring and involvement in the strategic development and management of the company.
- We ensure ongoing development in efficiency, management, culture, skills and communications.
- We ensure that our employees bear our strategies in mind and adhere to our values.

Critical success factors

To ensure that we achieve our long-term objectives, we have identified a number of critical success factors. They form the basis for the specific key performance indicators 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.

Financial responsibility

At Naviair, we are cost-conscious and we focus on the price of our services.

Capacity

At Naviair, we ensure that we have adequate capacity and handle air traffic with as few delays as possible.

Development

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

Efficiency

At Naviair, we are punctual, meet deadlines and make optimum use of resources.

Attractive workplace

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

Environmental responsibility

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

Areas of activity

Naviair has been designated by the Danish Transport Authority to provide aviation infrastructure and is therefore an important player in society.

En route – Denmark

Area control services in Danish air-space from:

- ATCC in Copenhagen *

Approach control service to Copenhagen Airport from:

- ATCC in Copenhagen *

Briefing service from:

- ATCC in Copenhagen *

Flight Information Services from:

- ATCC in Copenhagen *

AIS service:

- Aeronautical publications, AIP in Denmark

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

- ATM equipment
- Navigation and communications systems
- ATS surveillance systems

**) The ATCC in Copenhagen is operated by NUAC on behalf of Naviair*

En route – Greenland

Briefing service from:

- Flight Information Centre in Nuuk

Flight Information Services from:

- Flight Information Centre in Nuuk

AIS service:

- Aeronautical publications, AIP in Greenland and the Faroe Islands

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

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

Local Air Traffic Services

Aerodrome control service from:

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

Approach control service to airport from:

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

Aerodrome Flight Information Services from:

- Tower on Vágar

Other areas of activity

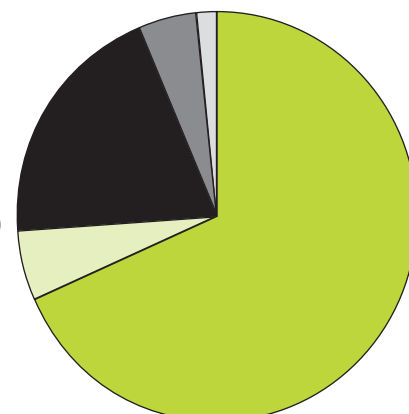
Sale of technical support and maintenance of ATM and airport CNS equipment from:

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

Sale of technical-operational know-how

Naviair's revenue by area of activity

- En route – Denmark (68.4%)
- En route – Greenland (5.6%)
- Local Air Traffic Services, Copenhagen (19.8%)
- Local Air Traffic Services, Other (4.6%)
- Other areas of activity (1.6%)



Activities in Danish airspace

En route – Denmark

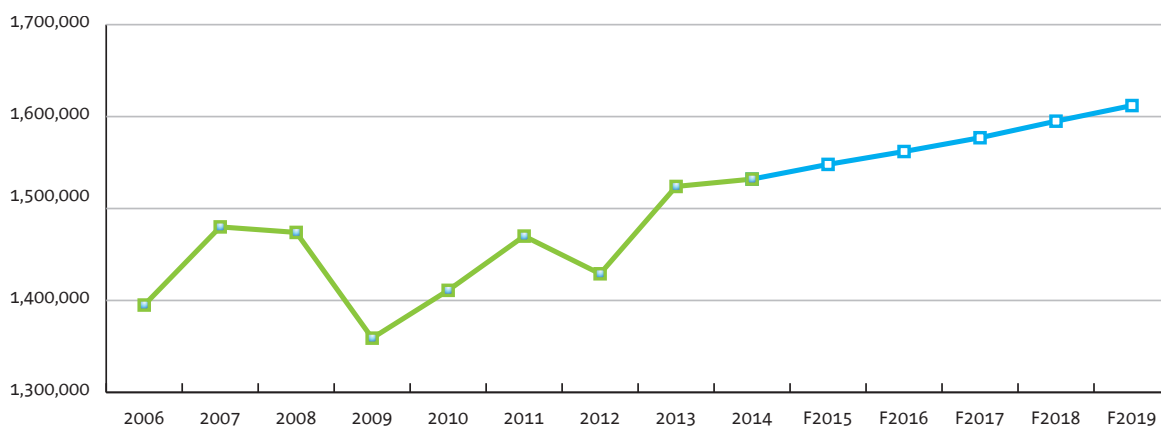
En route – Denmark comprises area control services in Danish airspace and ATM over Danish airports, including approach control service to Copenhagen Airport. The activities also include briefing and flight information services from the ATCC in Copenhagen. This area of activity also comprises technical support and maintenance of radar installations and communications systems in

Denmark. By far the largest portion of Naviair's revenue comes from en route traffic charges in Danish airspace.

Our outlook for en route traffic is based on forecasts from Eurocontrol (STATFOR). In the latest forecast from September 2014, Eurocontrol scaled down its expectations for growth in air traffic in the period from 2014-2019, so only a very moderate in-

crease in traffic is expected in the next few years. Expectations for growth in service units are also moderate. For 2015, we expect growth in service units of 0.9 per cent in relation to 2014. Despite the pessimistic forecast and the resulting limited earnings during RP2, we intend to keep to our decision to reduce our prices for En route by exercising strict cost management.

Development in service units – En route



■ Actual number of service units
■ Forecast September 2014 low



Local Air Traffic Services

Local air traffic services comprise aerodrome control and approach control in a number of Danish airports.

Our largest customer is Copenhagen Airports A/S, from whom we expect a small increase in air traffic in 2015. For our second-largest customer, Billund Lufthavn A/S, we expect the level of air traffic to remain unchanged. We also expect the rate of growth for the other airports to remain at the current level.

Danish domestic airports are very important for the development of aviation in Denmark, so at Naviair we want to promote initiatives that will support aviation in Denmark by ensuring a high level of capacity and efficient service in our towers.

Other areas of activity

Our other areas of activity in Denmark primarily comprise technical support and maintenance of ATM and airport CNS equipment. These activities mainly comprise CNS equipment, owned by third parties, primarily airports.

These activities are an excellent supplement to Naviair's core activities and enable us to optimise utilisation of our resources.

Besides support and maintenance, we provide technical and operational assistance to a number of business partners.

Activities in North Atlantic airspace

En route – Greenland

En route – Greenland comprises briefing and flight information in Sønderstrøm FIR from the Flight Information Centre in Nuuk.

The Sønderstrøm FIR extends from the sea to the south of the southern tip of Greenland all the way to the North Pole. It is one of the world's largest flight information regions and covers the airspace above a total area of approximately 4.2 million square kilometres. Our Flight Information Centre in Nuuk covers flight information services up to FL 195. For the northern part of the Sønderstrøm FIR, Denmark has outsourced air traffic control above this flight level to Iceland and it is provided from



Reykjavik, while air traffic control in the southern part has been outsourced to Canada, with the service provided from Gander. Air traffic control above FL 195 is based on agreements which Denmark concluded with Canada in 1963 and with Iceland in 1975 and these agreements have not been reviewed since they were set up. Naviar provides the technical equipment in Greenland that is used by Nav Canada and ISAVIA.

Local Air Traffic Services

In the North Atlantic, we operate aerodrome flight information in the Faroe Islands from the tower on Vágar.

Operation of technical equipment

We own and maintain the technical equipment for ATM and CNS services in Greenland. We operate the national COM centre in Nuuk, from where we monitor international and national ATS networks.

We use TELE Greenland as a subcontractor on a number of our activities.

Aviation surveillance – Aireon

In cooperation with a group of other ANSPs, we are improving the efficiency of ATM over the North Atlantic by using satellite-based aviation surveillance technology. We do this through our partnership in Aireon LLC.

Outsourcing

We have opted to outsource some non-core activities. We assess each case individually when deciding which activities are appropriate for outsourcing. Cleaning, canteen operation, security and reception service, maintenance of building services as well as technical maintenance in Greenland are currently outsourced.

Customer base

We strive to provide the best service to our customers at all times. We maintain both a high level of safety and provide the requested capacity at a price level that is optimum in relation to the high, requested standard of service.

Airlines

In Danish airspace, we service a number of Danish and foreign airlines with more than 600,000 flights annually. We provide these services both from our ATCC in Copenhagen and from our towers.

In 2014, en route air traffic was at the same level as in 2013.

The trends in air traffic have been fluctuating since the beginning of the financial crisis in 2008, and the continuing forecasts, according to which we have adapted our operations, have been very uncertain and variable. However, all the indications are that large parts of European air traffic will only experience low growth for a number of years to come. This will also apply to aviation in Denmark, where we expect a slight increase in traffic which, according to the forecasts, will be lower than the average growth in the rest of Europe.

Airports

Our largest airport customer is Copenhagen Airports A/S. We are very conscious of the airport's important role as a North European hub and of the social significance of having an airport with high international status in Denmark. So, as a subcontractor with a great deal of influence on the level of service provided to international aviation, we strive to ensure that traffic is managed safely and efficiently, so that Copenhagen Airport appears attractive compared with the large competitor airports in neighbouring countries. For one thing, we have operated ATM for a number of years, without contributing to – or causing – any form of delay worth mentioning. At the same time, our efficient, direct ATM means that Copenhagen Airport is seen as a low-fuel – and therefore CO₂-saving – choice for airlines. This benefits both the companies' finances and the environment.

The other airports in Denmark play a key role both to the 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 and in competition with nearby airports in our neighbouring countries. As a provider to these airports, we therefore focus both on delivering the most efficient service and on keeping the price of our services at the lowest possible level.

Danish Defence

Danish Defence carries out training flights and deals with a number of national tasks in Danish airspace, including air policing, search and rescue flights and maritime surveillance. Naviair is in close contact with Danish Defence in order to provide the best possible support for military needs.

The ongoing planning of military and civil airspace activities is handled by Airspace Management Cell (AMC) Denmark, which is run jointly by Naviair and ESK 515 in Kastrup.

Current civil and military traffic management is integrated and run by the ATCOs in the control centre in Copenhagen under the leadership of Naviair. ATCOs from Danish Defence are thus available to Naviair for running integrated traffic management.



Military training needs are met by military training areas, which can be allotted according to current requirements.

- The most demanding training flights take place in areas that are reserved on the previous day, which ensures that civil air traffic is informed at the planning stage of the best achievable route around the areas, irrespective of whether they choose to fly along a specified ATS route or use Free Route Airspace.
- Less demanding training flights can also be carried out in training areas that can be allotted immediately. In this case, it is the ATCOs in the control centre who adapt the extent of the training area to the civil air traffic in the area, so that aviation as a whole runs smoothly and efficiently.

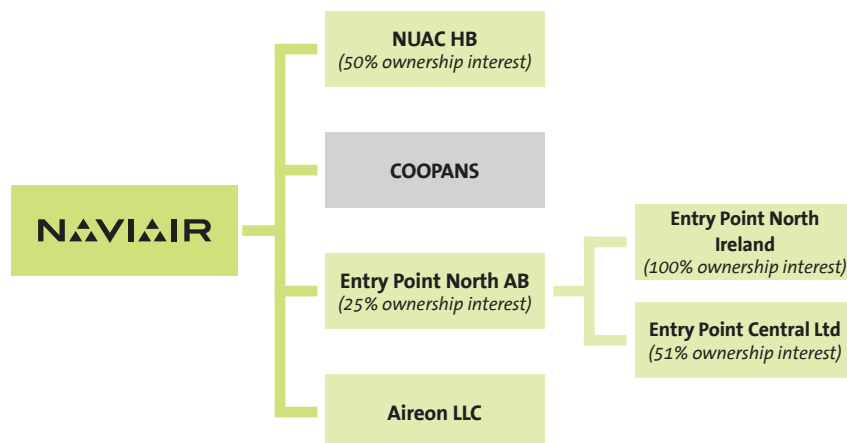
The flights of Danish Defence outside the military training areas are supported directly by the ATCOs in the control centre based on current needs. Flights are managed in accordance with the rules laid down by the Danish Transport Authority for the relevant airspace.

In the North Atlantic, Naviar has a close working relationship with the Arctic Command, and we rent premises from the Arctic Command in Nuuk in Greenland. Here, our Flight Information Centre is part of Joint Rescue Coordination Centre Greenland. The close coordination of search and rescue missions for aviation in Greenland ensures an optimum level of service.



International partnerships and alliances

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 four international partnerships and alliances.



■ **Partly-owned enterprises**
 ■ **International partnership (Naviair, Irish Aviation Authority, LFV, Austro Control & Croatia Control)**

NUAC HB



Owners:
 Naviair (Denmark), LFV (Sweden)

NUAC was established in 2009 as the first – and still the only – integrated operating company in Europe that is responsible for en route ATM in a joint functional airspace block (FAB). NUAC operates the three ATCCs in Copenhagen, Malmö and Stockholm as a subcontractor on behalf of Naviair and LFV.

NUAC only has approximately 10 direct employees, while the remaining just over 750 employees are on secondment to NUAC from Naviair

and LFV. The three ATCCs and other equipment used by NUAC are owned by Naviair and LFV, but made available to NUAC.

Through co-ownership of NUAC, we implement a part of our ambition to contribute to the harmonisation of ATM in Europe. Through NUAC, we also ensure continued improvement in the efficiency of ATM and carry out continuous development and optimisation of the utilisation of airspace.

One example of airspace optimisation is Free Route Airspace which, together with LFV, we introduced in the Danish-Swedish FAB back in 2011. Free Route Airspace allows the airlines free planning of their flights through the FAB. The result is shorter routes and reduced flight times, which leads to fuel savings and thus benefits the airlines' finances. Free Route Airspace also results in reduced greenhouse gas emissions, so it has beneficial effects on the environment as well.

The larger the areas covered by Free Route Airspace, the greater the benefits for aviation and the environment. With this in mind, Naviair and LFV are now cooperating with the ANSPs in Norway, Finland, Estonia and Latvia – which together make up NEFAB, the North European Functional Airspace Block – on extending Free Route Airspace to cover the entire Nordic area from November 2015. This project is called NEFRA, North European Free Route Airspace, and NUAC will be responsible for the operational implementation of NEFRA in the Danish-Swedish FAB.

NUAC is also working on developing and implementing a number of other efficiency measures and improvements, some of which are for air traffic around Copenhagen and Malmö airports in the so-called Øresund terminal area. Here, the ambition is to reorganise ATM across the old territorial borders, allowing arrivals and departures at these airports to be carried out even more efficiently than they are today.

COOPANS



Partners: Naviair (Denmark), Austro Control (Austria), Croatia Control (Croatia), Irish Aviation Authority (Ireland), LFV (Sweden)

COOPANS is a partnership between Naviair, Austro Control, Croatia Control, Irish Aviation Authority and LFV.

Since COOPANS was set up in 2006, the partners have cooperated on the joint development, upgrading and harmonisation of their ATM systems. The systems now use common software and the maintenance processes have been harmonised. As a result, seven control centres in Denmark, Sweden, Ireland, Austria and Croatia have now been harmonised. This is a unique development in European ATM, while the ANSPs in the other countries are still running their control centres with individual, technically very diverse systems. The COOPANS cooperation has enabled the five partners to take the lead in the matter of implementing EU requirements for the harmonisation of ATM. In addition to meeting the EU requirements – including the performance requirements – on time, we are making our mark on the development of SESAR. The COOPANS cooperation

includes joint participation in SESAR, so that, in future, COOPANS will also cover research and innovation, system development and cooperation on harmonising the training of technical staff.

Through COOPANS, the partners are able to cut their development costs through continuous joint upgrading of the ATM systems. The alternative would be extensive, very costly, individual ‘big bang’ ATM system migrations. In addition, in COOPANS we harmonise operational and technical procedures in order to limit specific and individual functionalities at the various ANSPs. We estimate that we cut our system development costs compared with the costs each partner would incur if we had to develop the technology independently. To this should be added our considerable savings in operating expenses as a result of joint work concepts and exchange of experience.

COOPANS now also comprises co-operation on SESAR 2020.



Entry Point North



Nordic ATS Academy

Owners: Naviair (Denmark), Avinor (Norway), Irish Aviation Authority (Ireland), LFV (Sweden)

The ATS training academy Entry Point North is situated at Malmö Airport and is jointly owned by Naviair, Avinor, Irish Aviation Authority and LFV. The academy was established in 2006 as the first transnationally owned academy offering ATM training, and Irish Aviation Authority became co-owner of the academy in 2013. Entry Point North has established academies in Budapest, Hungary, together with Hungaro Control, and a 100%-owned academy in Shannon, Ireland.



The services provided by Entry Point North include Recruitment services, Initial training, Conversion training, Refresher training and Development training. In line with the ambition in SES, the primary aim of Entry Point North is to provide standardised and harmonised training for ATCO trainees and ATCOs.

The academy is the course provider for all ATM training, which also includes English aviation training and tests, Safety Management System, Accident investigation, supervisor courses, ATSEP courses and the training of technical staff who carry out the maintenance of the ATM and CNS equipment.

Besides providing ATS training to its four owners, Entry Point North services ANSPs worldwide on commercial terms by selling training courses tailored to customer requirements that are held either at Entry Point North in Sturup or on-site at the customer. Entry Point North has more than 40 customers in more than 20 countries.

Aireon



Owners: Naviar (Denmark), ENAV (Italy), Irish Aviation Authority (Ireland), Iridium (USA), Nav Canada (Canada)

Aireon is a joint venture formed by a number of companies that will set up the world's first satellite-based global aviation surveillance system in the coming years. When the setting-up of the new system is completed as expected in 2018, it will be possible to collect data all over the world on all aircraft fitted with ADS-B equipment. The great majority of commercial aircraft already have this equipment, but at present only approximately 10 per cent of the area of the globe is covered by the existing surveillance equipment. There is currently no surveillance in the remaining – often remote – areas, so at present ATM is based on the aircraft's own radio reports on their position, altitude, course and speed.

Aireon LLC is headquartered in Virginia, USA. Besides Naviar (with an expected 6% ownership interest in 2017), the other joint venture partners are the US telecommunications company Iridium Communications Inc. (24.5%) and the ANSPs Nav Canada (51%), ENAV (12.5%) and Irish Aviation Authority (6%).

The new system comprises 66 satellites and a further number of back-up satellites, which Iridium will be putting into orbit around the earth during the period 2015-2017. The system also includes a number of receiving stations positioned in various locations on earth and a new satellite control centre, which is being set up in Virginia.

Aireon's business strategy is based on the sale of traffic surveillance data, mainly to the ANSPs but also to others, including airlines and flight handling companies. Naviar contributes actively to Aireon's sale of services and the development of operational concepts that underpin Aireon's business strategy.

As a special service through its Aireon ALERT service, Aireon plans to supply the first global emergency surveillance service, whereby data on lost and missing aircraft will be made available free of charge to rescue services and other relevant services. This free service will considerably strengthen global preparedness for aircraft emergencies.

This improved surveillance will constitute a major advance for ATM. In addition to the safety benefits, the system will also provide an opportunity for the ANSPs to use airspace much more efficiently than today. This in turn will enable the airlines to save fuel and flying time and save the environment from considerable quantities of greenhouse gases.



Environmental and climate initiatives

Like all other forms of transport, aviation affects both the environment and the climate. Aviation's total share of global air pollution is between 2 and 3 per cent. By way of comparison, the transport sector's share is approximately 20 per cent, and road transport alone accounts for 14 per cent of this at global level.

Regardless of the quantity of emissions, the target is always, of course, to reduce pollution as far as possible. At Naviair, we are working hard to reduce the impact on the environment and climate in our part of the aviation value chain. We are constantly seeking ways to reduce this impact by improving our procedures and the technology we use.

Emissions of CO₂ and other greenhouse gases from aviation

We are striving to optimise our infrastructure systems and make ATM more efficient, so that our activities can help to reduce the impact of aviation on the environment and the climate as far as possible. Insofar as this is possible – and where deemed safe – we give aircraft direct routes between their destinations and ensure that they get the altitude and

speed requested by the airlines so that the particular type of aircraft uses the least possible fuel. We also ensure that the aircraft take off, land and taxi at airports in a way that allows fuel consumption to be kept as low as possible.

Flight safety is naturally always given top priority in ATM. Even with the highest level of safety, we are always working to optimise ATM and at the same time focusing our attention on any opportunity to implement new initiatives that improve the climate and the environment.

We do this by prioritising a service-oriented culture, in which we endeavour to meet airlines' and pilots' requests for routes, speeds and altitudes. At the same time, we focus on developing the most efficient traffic concepts and ensuring the most flexible use of airspace. Our work is, of course, also guided by the recommendations of the European aviation organisations.

In all the focus areas involving the highest fuel consumption, we have made good headway on the development of climate-friendly traffic concepts. This applies to Free Route

Airspace, Continuous Climb Operations, Continuous Descent Operations and Required Navigation Performance. Among many other concepts, we are also exploring the possibility of Extended Arrival Management.

Together with LFV, we have been practising Free Route Airspace in Danish-Swedish airspace since 2011. This allows the airlines free planning of the shortest possible, most direct flight through our airspace. The airlines can then calculate very precisely the amount of fuel the aircraft has to carry in order to complete the flight and thus reduce the aircraft's take-off weight as far as possible, so fuel is saved both by flying with lighter aircraft and by flying the shortest possible distance.

Eurocontrol has calculated that Free Route Airspace reduces CO₂ emissions in Danish-Swedish airspace by altogether 40,000 tonnes per year. When our cooperation with a number of other ANSPs on extending Free Route Airspace to cover the whole of the Nordic area – Denmark, Sweden, Norway, Finland, Estonia and Latvia – is implemented as of November 2015,





it will result in further significant environmental and climate improvements.

Extensive use of Continuous Climb Operations for departing aircraft at Copenhagen Airport allows us to save the environment from annual emissions of approximately 32,000 tonnes of CO₂. At the same time, the airlines save a total of approximately 10,000 tonnes of fuel per year.

These savings are documented in a Eurocontrol analysis. Using Continuous Climb Operations, the aircraft taking off are allowed to depart from the so-called Standard Instrument Departure procedure, which requires them to remain at different altitudes in graduated steps several times during departure. Instead, the aircraft are given permission to climb directly to their desired cruising level, and at the same time turning directly towards their destination as quickly as possible.

Continuous Descent Operations enable pilots to plan the most fuel-efficient and climate-friendly approach to airports from the aircraft's cruising level to landing. This enables 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 Continuous Descent Operations and at the same time maintain high capacity with optimum density between departing and arriving aircraft. But during periods of low traffic intensity, it is possible to use the concept – without Continuous Descent Operations hampering the possibility of maintaining the high proportion of Continuous Climb Operations.

At Copenhagen Airport, we are also cooperating closely with the airport, the airlines and other relevant players to reduce particle emissions through efficient management of aircraft while they are taxiing at the airport.

Lastly, we are working together with the Danish and Swedish authorities to establish a more efficient, more expedient airspace structure in the Øresund region around the airports in Copenhagen and Malmö. Our ambition is to establish an integrated terminal area across the areas that have hitherto been nationally delimited. A new Øresund terminal area will mean that arrivals and departures at Copenhagen Airport, for example, can be handled even more efficiently so that,

among other things, aircraft fuel can be saved with a consequent reduction of the impact on the environment and climate.

Noise

At all airports where Naviair manages traffic, clear noise restrictions are laid down that safeguard the surrounding areas against unnecessary noise inconvenience from aviation. We of course adhere scrupulously to these restrictions and in addition we contribute actively to reducing noise at and around the airports by applying the most efficient traffic procedures. We therefore only experience very few cases of infringement of the noise limits where Naviair shares responsibility.

Environmental and climate initiatives in our buildings and technical installations

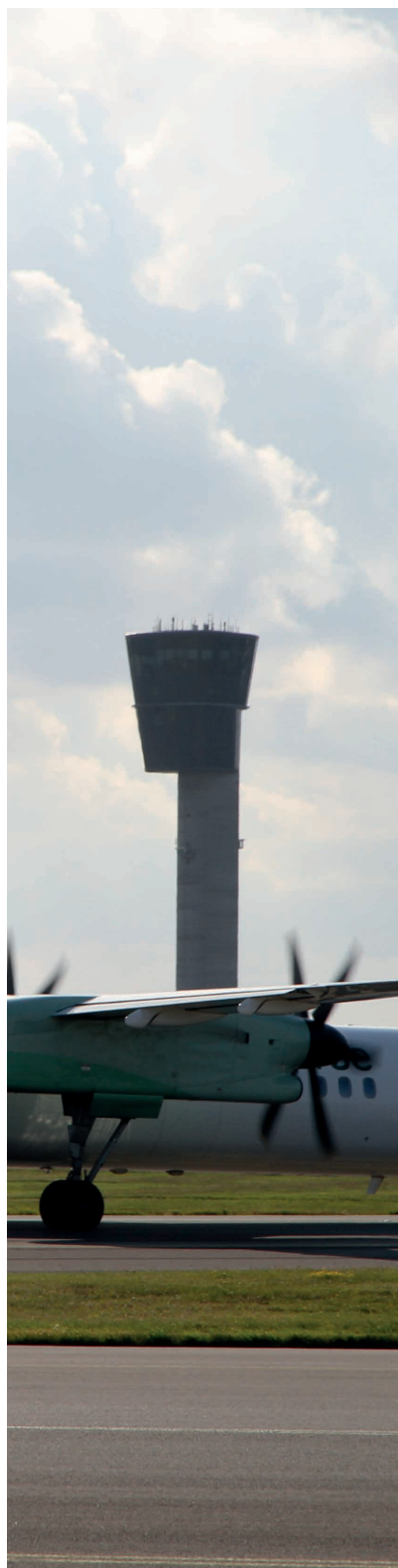
Naviair operates 24/7, 365 days a year and our technical installations need a great deal of energy for both operation and cooling. Energy consumption for both our buildings and our technical installations is therefore considerable.

However, we are striving to reduce our energy consumption and making use of all available opportunities.

Among other things, in the last few years we have carried out a major energy optimisation in the IT area, where converting and replacing equipment has reduced our total energy consumption in this area by 86 per cent, which corresponds to almost 700,000 kWh. This initiative has resulted in annual savings in energy costs of almost DKK 0.8 million and an annual CO₂ reduction of 310 tonnes.

Our energy consumption for cooling is considerable and we are currently in the process of building new cooling plants in Copenhagen, with cooling installations adapted to ground water cooling and new cooling machinery installed. We expect the new plant to be ready to go into service in 2017. When the plant is in operation, we expect an annual saving in energy costs for cooling of up to DKK 1.5 million, and at the same time we will reduce our CO₂ emissions by approximately 275 tonnes per year. Total investment in the new plant will amount to DKK 32 million.

In addition, we have also implemented a number of other minor initiatives, including the ongoing replacement of light fittings with LED fittings, and our total energy consumption has been falling over the last few years.



Climate strategy

We are constantly working towards taking every opportunity to contribute to a positive effect on the climate. This work is being carried out in continuous consultation and cooperation with our customers and we participate in environmental and climate work in a number of initiatives, including SES, SESAR, NUAC and COOPANS.

Using Eurocontrol's and IATA's joint Flight Efficiency Plan as a starting point, we 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 airports where Naviair is providing tower service.
- Minimal ground delays with engines idling through efficient ATM at airports.
- Continuous Climb Operations wherever possible – with direct routes and climbs to cruising level.
- Participation in cooperation on the development of satellite-based global surveillance of air traffic, with the opportunities this kind of system will offer for optimising the use of airspace and reducing fuel consumption.



European framework

The EU framework for ATM has great influence on the way Naviar has to run its operations. The EU Member States and a number of other European countries have jointly committed to harmonising and integrating ATM in Europe into a single airspace (Single European Sky). This will mean that ATM across Europe will be subject to the same framework and development targets. The aim is to achieve uniform ATM for both civil and military airspace users with a view to creating safe, well-ordered, efficient and economical ATM throughout Europe and at the same time reducing the environmental impact.

Single European Sky – SES

The EU targets are set out in the Single European Sky (SES) legislative package from 2004 and various amendments to it, which can be found in an SES II legislative package from 2009.

In accordance with SES, the many geographical areas based on state boundaries were combined to form functional airspace blocks with effect from December 2012. Denmark is part of an airspace block with Sweden, the Danish-Swedish FAB. With SES, performance targets have been introduced (see section on Performance scheme). Powers and responsibilities relating to safety in the ATM area have been transferred to the European Aviation Safety Agency (EASA), and Eurocontrol takes care of the pan-European coordination via its role as Network Manager. Furthermore, environmental rules and regulations have been introduced to curb pollution.

In June 2013, the European Commission put forward proposals for new rules, the so-called SES II+ package, which deal with, among other things, the roles of EASA, Eurocontrol and the European Commission; opening up certain services to competition; and more performance-based airspace blocks. The proposals have raised a number of questions and are still being considered by the European Council of Ministers and the European Parliament.

Performance scheme

Naviar has been complying with the European performance schemes since 2012. The performance scheme is the result of the Single European Sky legislation through which the EU aims to ensure both more efficient utilisation of European airspace and sufficient airspace capacity to accommodate the growing level of air traffic. Another objective is to cut CO₂ emissions and the costs of air navigation services.

The performance improvements will be achieved through EU-wide, FAB-wide and nationwide performance targets. The performance scheme comprises the en route area and for Reference Period 2 now also charges related to terminals and airports (Terminal Navigation Charges).

The EU-wide performance targets are 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). In 2015, we will be entering the performance scheme's second reference

period, which will run for five calendar years from 2015 to 2019.

Naviar is comprised by the performance plan for the Danish-Swedish FAB. Performance targets have been set in the following four areas: Safety, Capacity, Environment and Cost efficiency.

The targets are legally binding on EU Member States. ANSPs will be measured on their performance. ANSPs that do not satisfy the performance requirements may be subject to corrective action or sanctions in the form of penalties. Any corrective action will be formulated and initiated by the national authorities.

Single European Sky ATM Research – SESAR

SESAR is an offshoot of SES, which runs over the period 2009-2014 (extended to 2016), and is the EU's research programme for the development of the new generation of an integrated European ATM system. This means that SESAR is the technological approach to testing and finding solutions that can achieve the SES targets.

The programme combines technology with operational, financial and legislative aspects.

In 2014, the EU decided to extend the work of SESAR with a new programme called SESAR 2020, which will be operational during the period 2015-2020. SESAR 2020 will build on the experience gained from SESAR and focus its efforts on fewer areas and more operational needs.

The European Council of Ministers adopted a European ATM Master Plan



in 2009 and updated it in autumn 2012. The plan describes how the new generation of the European ATM system will be implemented in the period from 2014 onwards. In 2007, the EU established a joint undertaking structured as a public-private partnership, the SESAR Joint Undertaking. The purpose of SESAR Joint Undertaking is to manage and develop SESAR. 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. In 2013, the EU Council of Ministers extended SESAR Joint Undertaking to cover the period up to 2024.

Naviair has been participating in the work of SESAR Joint Undertaking through NORACON, North European and Austrian Consortium. This cooperation will come to an end in 2016. Naviair has applied for membership of SESAR Joint Undertaking from 2015 together with our partners in COOPANS.

SESAR's work has led to a number of proposals for areas in which common rules should be issued. Against that background, the European Commission has proposed six sets of rules structured as Pilot Common Projects. These – and future – rules will be launched in the Member States through a governing body, Deployment Manager. Together with the other COOPANS partners, Naviair has been appointed by the European Commission to operate the Deployment Manager entity. The Deployment Manager entity is operated by the groups A6, an alliance of ANSPs; A4, an alliance of airlines; and SDAG, a consortium of airports.

Partnerships and alliances with other ANSPs



Members: Naviair (Denmark), Avinor (Norway), EANS (Estonia), Finavia (Finland), Irish Aviation Authority (Ireland), ISAVIA (Iceland), LFV (Sweden), LSG (Latvia), NATS (UK)

To help it implement the EU rules and develop as safe, efficient and cost-effective ATM as possible, Naviair has formed partnerships and alliances with other North European ANSPs. One such alliance is the cooperation in Borealis. Another cooperative relationship is between the Danish-Swedish FAB and the airspace block in which Latvia, Finland, Norway and Estonia participate (NEFAB), on the establishment of Free Route Airspace across the entire Nordic area from November 2015.



Members: Naviair (Denmark), Austro Control (Austria), Avinor (Norway), EANS (Estonia), Finavia (Finland), Irish Aviation Authority (Ireland), ISAVIA (Iceland), LFV (Sweden), Swedavia (Sweden)

We also participate in NORACON, a consortium that cooperates on participation in the SESAR programme. Through NORACON, Naviair is able to influence decisions on the pan-European development in the technical-operational area and thus also the interests of the COOPANS partners. At the same time, through NORACON, the partners have been protecting their long-term strategic investments in a SESAR perspective.

The NORACON cooperation will end in 2016.

Industry associations

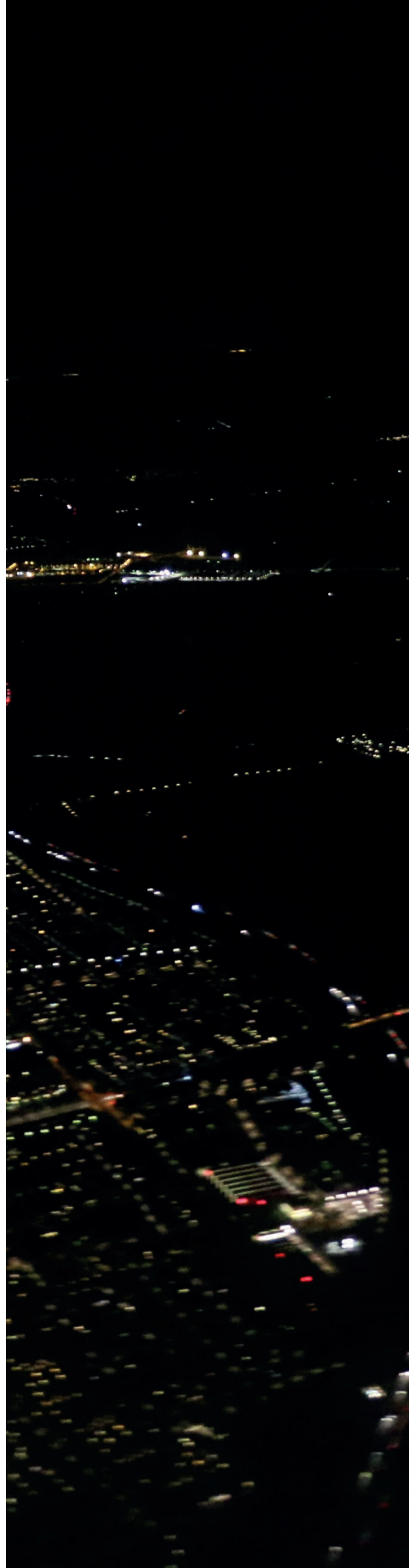
CANSO

Naviair is a member of CANSO, the civil air navigation services organisation that represents its members' views to the aviation industry's other stakeholders.

Confederation of Danish Industry (DI)

Through its associate membership of DI, Naviair is a member of the industry association Dansk Luftfart (Danish Aviation). The association's aim is to secure the Danish aviation industry a central role in the future growth and development.





Abbreviations and designations

A4: Alliance of airlines	ENAV: ANSP Italy	NUAC: Nordic Unified Air traffic Control (NUAC is a jointly owned Swedish general partnership under Naviair and LFV that has been responsible for the operation of the three ATCCs in Copenhagen, Malmö and Stockholm since 2012)
A6: Alliance of ANSPs	Eurocontrol: European Organisation for the Safety of Air Navigation	
ADS-B: Automatic Dependent Surveillance-Broadcast	FAB: Functional Airspace Block	
AIP: Aeronautical Information Publication	Finavia: ANSP Finland	RP2: The performance plan's second reference period (2015-2019)
AIS: Aeronautical Information Services	Free Route Airspace: Airlines' free planning of their flights between defined entry and exit points	Service unit (En route): The charge for an aircraft with a maximum take-off weight of 50 tonnes flying 100 kilometres.
ANSP: Air Navigation Service Provider	IATA: The International Air Transport Association	
ATM: Air Traffic Management		
ATS: Air Traffic Services	ISAVIA: ANSP Iceland	SES: Single European Sky (EU initiative to unify European airspace)
Austro Control: ANSP Austria	Irish Aviation Authority: ANSP Ireland	
Avinor: ANSP Norway	LFV: ANSP Sweden	SESAR: Single European Sky ATM Research programme (EU programme on development of the new generation of an integrated European ATM system)
CNS: Communications, Navigation and Surveillance	LSG: ANSP Latvia	
COM centre: Communications centre for the processing and distribution of communications in aviation and meteorology.	Nav Canada: ANSP Canada	SDAG: SESAR Deployment Alliance Group (consortium of airports)
COOPANS: CO-Operation of Air Navigation Service providers	NATS: ANSP UK	
Croatia Control: ANSP Croatia	NEFAB: North European Functional Airspace Block (consists of Norway, Finland, Estonia and Latvia)	
EANS: ANSP Estonia	NEFRA: North European Free Route Airspace	
EASA: European Aviation Safety Agency	NORACON: North European and Austrian Consortium (North European technical cooperation)	



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Business Plan 2015-2019, published in February 2015.

Photo on front cover:

Dash-7 during departure from Ilulissat, Greenland.

All photos by: Jan Eliassen.

**The Business Plan can be downloaded
at www.naviair.dk**

Business Plan 2015-2019



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