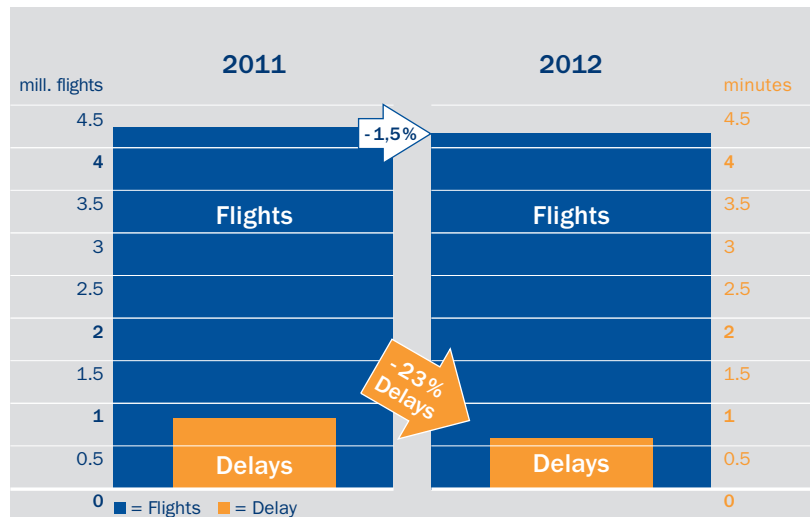


FABEC Performance

**Air traffic has been punctual in the first three quarters of 2012**

Air traffic in FABEC airspace is punctual; the service quality provided by the seven FABEC air navigation service providers ANA (Luxembourg), Belgocontrol (Belgium), DFS (Germany), DSNA (France), LVNL (Netherlands), MUAC (EUROCONTROL), and skyguide (Switzerland) is improving continuously. This, in a nutshell, is the message derived from the latest FABEC performance report containing data for the first three quarters of 2012. In this period, the en-route air traffic flow management delay per controlled flight decreased from 0.83 minutes (2011) to 0.65 minutes. Only 3.4 percent (2011: 4.7 percent) of all 4.23 million controlled flights (2011: 4.29 million) had delays. And only 1.68 percent of the flights had a departure delay of more than 15 minutes, and these were mainly long-haul flights. This reduction of delay during the first three quarters of 2012 amounts to an estimated



Air traffic development versus punctuality in the first 3 quarters of 2011 and 2012

saving of EUR 67 million when compared to the delays in the same period in 2011.

“We are quite happy with this positive result,” said Paul Riemens, CEO LVNL, “which is mainly based on improvements made by the ANSPs individually. Nevertheless,

we can see that FABEC-wide initiatives, such as the FABEC Olympic Cell and growing cooperation behind the scenes between the control centres, are contributing to the results.”

“As we are currently well on track to stay below the delay target value for 2012, I am satisfied. But we have to be cautious with the expectations that may arise from these numbers – both in regard to the fulfilment of our target for 2014 and in regard to the upcoming definition of new targets for the years 2015-2019. As we are dependent on unpredictable external factors such as weather conditions or even industrial action, I am strongly advocating for realism,” underlined Hans Plets, Chairman of the FABEC ANSP Performance Management Group.

For more information, please continue on page 15

FABEC Olympics Cell

**Success to spread benefits across FABEC**

For Europe’s air traffic management community the London 2012 Olympic and Paralympic Games presented a number of extraordinary challenges. It was not just an unusual concentration of extra traffic in one corner of the network

that had to be planned for, there were also over 100 Head-of-State flights that had to be managed and new airspace procedures and security restrictions accommodated.

Page 04

FABEC Airspace Strategy

**DFS, MUAC and Lufthansa pioneer large-scale free routing**

A pioneering project to offer aircraft operators direct flights and user-preferred routings (UPRs) across a huge part of Europe’s airspace, stretching from Poland

to the UK, is underway with a consortium between MUAC, the DFS Deutsche Flugsicherung Karlsruhe upper area control centre and Lufthansa.

Page 06



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## 02 – FAIR STREAM

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### FAIR STREAM

#### Common approach to increase flight efficiency

In autumn 2012, the FAIR STREAM (FABEC ANSPs and AIRlines in SESAR TRials for Enhanced Arrival Management) consortium involving major European airlines, air navigation service providers and suppliers has started the concrete work on flight trials to improve predictability and flight efficiency towards major European airports. The project is one of the projects launched by SESAR in 2012. The project consortium is led by DSNA (Direction des Services de la Navigation Aérienne) and combines the expertise from both the air navigation service providers DFS Deutsche Flugsicherung and skyguide as well as the airlines Air France, Swiss, Lufthansa, Regional and Delta. In addition, Airbus Pro Sky and EUROCONTROL are contributing with their special knowledge on aircraft behaviour and network management. The flight trials will be performed with commercial flights and existing technical systems involving the airports of Munich, Paris and Zurich. They will be conducted in May/June and September/October 2013.

Maurice Georges, CEO DSNA, stated: “It is essential now to have a strong synergy between the SESAR programme and the initiatives of FABEC. The FAIR STREAM project illustrates perfectly this cooperation. I hope that this new operational concept will make possible real progress in terms of safe-

ty, capacity and environment due to a smoother flight profile from departure to arrival”.

Concretely, the objective of the FAIR STREAM project is to pave the way for the use of target time of arrival (TTA) instead of calculated take off time (CTOT). This demand capacity balancing (DCB) measure should allow better management of the capacity all along the flight and at the destination airport. The FAIR STREAM project will evaluate the benefits of the TTA concept on predictability and flight efficiency, validate the capability of on-board and ground systems and evaluate how flight crews, air traffic controllers, and local and regional flow managers can handle the procedure as well as the impact on traffic complexity and staff workload.



Munich Airport



Zurich Airport



Paris Airport

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Project CBA Land / Central West  
**Two Steps Ahead**

The key to achieving the operational performance level required by the EU is to find joint solutions for existing bottlenecks. They are mainly located at the intra-FABEC boundaries where dense traffic flows and military requirements collide. One of these bottlenecks will now be solved thanks to the FABEC Project CBA Land/Central West. This is a large-scale cross-border re-sectorisation planned at the borders of Germany and the Netherlands involving the Dutch and German military as well as three civil ANSPs: DFS, LVNL and MUAC. Concrete solutions are on the table which will be validated and implemented in the course of the next years.

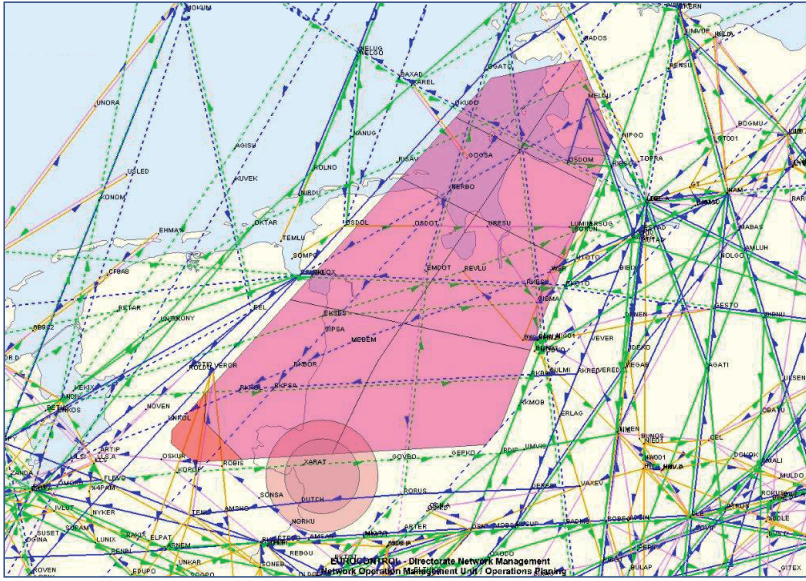
**CBA Land**

In a first step, a military cross-border area will be implemented at the northern border between the Netherlands and Germany. It will accommodate training for the fighters operated by the Dutch and the German Air Forces. To reduce the impact on civil traffic flows, a modular use of this airspace is planned. In addition, some routes going to or coming from Scandinavia will be dualised. Some of the procedures currently used for arrivals and departures to Bremen, Hamburg and Hannover might also have to be changed. The real-time simulations needed for validation are to take place in spring 2013. Implementation is scheduled for autumn 2015.

In a second step, the military area TSA 12 – well known from the Am-RuFra case – located near Eindhoven will disappear. A new route structure, including a new sectorisation, is currently under development. To prove the concept, a real-

time simulation is scheduled for spring 2014 and the implementation should take place in autumn 2016. These implementations will significantly improve the flows from, and to, the Frankfurt area and the Amsterdam area. In addition, it will facilitate the 4th initial approach fix for Schiphol Airport.

Project Central West is one of the most ambitious airspace design projects at the core of European airspace. Although the interests of the various parties were quite contrary in the beginning, a solution was found – mainly due to the fact that FABEC brought the right people together.



CBA Land: new routes





## 04 – FABEC OLYMPICS CELL

FABEC Olympics Cell

### Success to spread benefits across FABEC

continued from page 01:

The changes to day-to-day operations had consequences for civil and military aircraft operators and air traffic control facilities throughout the FABEC area. With airlines filing flight plans just hours before take-off, the challenges to developing appropriate information sharing technologies and new procedures – such as flexible use of airspace (FUA) operations between civil and military partners - while coordinating civil and military controller roster patterns were considerable.

To plan and manage these challenges FABEC set up a joint Civil and Military FABEC Olympics Cell for Extended Pre-Tactical Air Traffic Flow and Capacity Management/ Airspace Management (ATFCM/ASM). The cell, hosted at MUAC, was part of a long-term wider FABEC strategy to improve capacity

and reduce delays in the FABEC area and obviously to facilitate the Olympic Games at minimum network disruptions. New flight profiles, coordination procedures and off-load scenarios were established and, in collaboration with military partners, special new direct routes such as the Free Route Olympic Games (FROG) routes in the North of France and additional routes in the Netherlands, extending into Germany, were made available in the upper airspace. A dedicated portal was developed by MUAC, so all partners had access to flight plan and operational traffic data and could communicate via the portal rather than having to contact colleagues by phone.

The successful result of this work ensured air travel across the continent ran smoothly throughout the

Games – and the lessons learnt will be evolved into new long-term ATM capacity management strategies for all FABEC States.

#### Impact from the Olympic Cell En Route ATFM-Delay



During the Olympic Games air traffic was more punctual than one year before.

*“The cell was about synchronising the actions of the FABEC partners,” said Theo Hendriks, Olympics Cell Project Manager, “trying to apply best practices across the area, as we all have different capabilities. This resulted in delay avoidance and it allowed us as well to look for opportunities, for operations we would not normally do. For example, we were able to deliver reduced penalising constraints on airlines, promote the use of Olympic direct routes and replace regulation-type actions with short term air traffic flow control measures. The military partners released military airspace quite generously during the period of the Olympics and during the Games we worked together to fine-tune military activities in line with the demands of civil traffic.”*

*“This large-scale operational solution based in one single location in the control room of MUAC reduced the number of interfaces, ensuring optimum coordination between airspace users,” said MUAC Director Jac Jansen.*

*“Because of the work we did with our colleagues in the FABEC Cell we were able to adapt our military operations during the three weeks of the Olympics in favour of civil operations,” said Victor Van Kempen, the Dutch military representative in the Olympics Cell. “Civil and military representatives were sitting together in the Cell at MUAC; this allowed us to explain what is, and what is not, possible on the military side.”*

*“A most positive aspect was for civil and military controllers to sit together to better understand the other points of view,” said Jean-Philippe Desmeth, Head of the Belgian Military Airspace Management cell (AMC).*

*“The best practice lessons will be taken from this experience and incorporated within the FABEC Air Traffic Flow and Capacity Management/ Airspace Management (ATFCM/ASM) programme, which aims to set up a similar cell at the FABEC level, but working on a regular basis,” said Isabelle Monnier, Head of the Marseille Air Traffic Control Centre and project leader of the FABEC ATFCM/ASM implementation project.*



Chris Woodland, Flight Dispatch Manager, Thomas Cook Airlines: *"The FABEC Olympics Cell provided an excellent source of contact for Thomas Cook UK during the Olympic period and after discussions directly with the FABEC Cell we were able to use specified 'directs' outside the published times where possible, alleviating delays we would have taken in other sectors - and with no cost penalty. Also the work that was done to have the directs*

*available during the Olympic period was appreciated as there was a fuel saving on a number of these routes and we hope this can be incorporated into future airspace design."*



Ganz sicher mein Urlaub.



Chris Woodland, Thomas Cook Airlines



Eric Bruneau, Director Operations of the French ANSP Direction des services de la navigation aérienne, officially opens the FABEC Olympics Cell.

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## 06 – POINT MERGE

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DSNA Paris

### Live trials for traffic to Paris-CDG

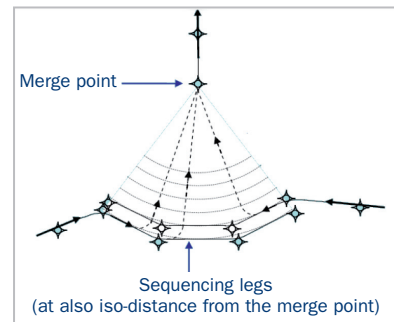
The Point Merge is an operational concept outlined in the European ATM Master Plan (SESAR). This new ATC procedure developed by Eurocontrol is used for sequencing arrival flows in the TMA.

How Point Merge works: in upper airspace, concentric arcs are created defined as RNAV routes and called sequencing legs. Traffic flies on these sequencing legs at an economical speed and receives a “Direct to” instruction at the optimum time for upper traffic synchronization.

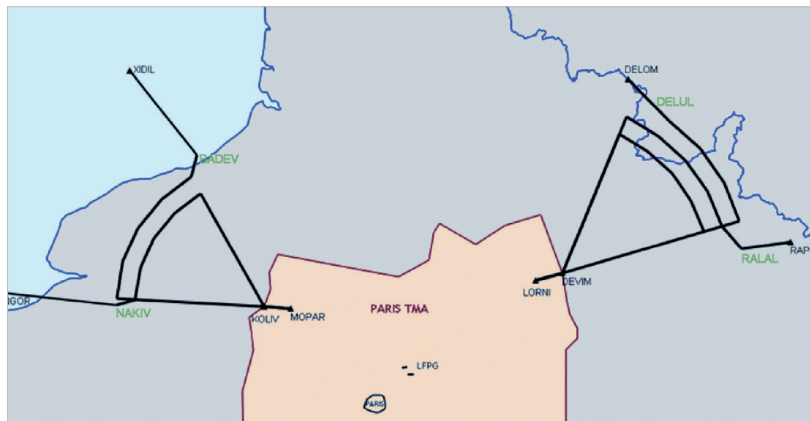
Paris ACC carried out live trials of point merge in June 2012 for handling North-West flights to Paris-CDG airport at peak hours from 6 am to 10 am. Stéphane, an air traffic controller at Paris ACC, noticed: “Smoother, safer! The Merge-Point is a great help to air traffic controllers, enabling to achieve far more easily the right sequence at the right moment.” Ludovic, an approach air traffic controller at Paris-CDG, explained: “Optimisation of arrival operations with the ACC has never been so easy, despite of challenging traffic conditions when we would have to use holding patterns”. The impact on performances and benefits in terms of fuel consumption, capacity and regularity are now scrutinized by a European team of experts but the gains expected have already been confirmed.

DSNA invites stakeholders to participate new live trials during 4 Saturdays (from 17 November 2012), days without military activities. A larger Point Merge System, designed to deliver the targeted ATC capacity, will be temporarily evaluated both in the North-West and in the North East of the Paris area. Airlines (Air France, Regional), EUROCONTROL and DSNA’s FABEC partners (MUAC and Belgocontrol) will be associated to this evaluation.

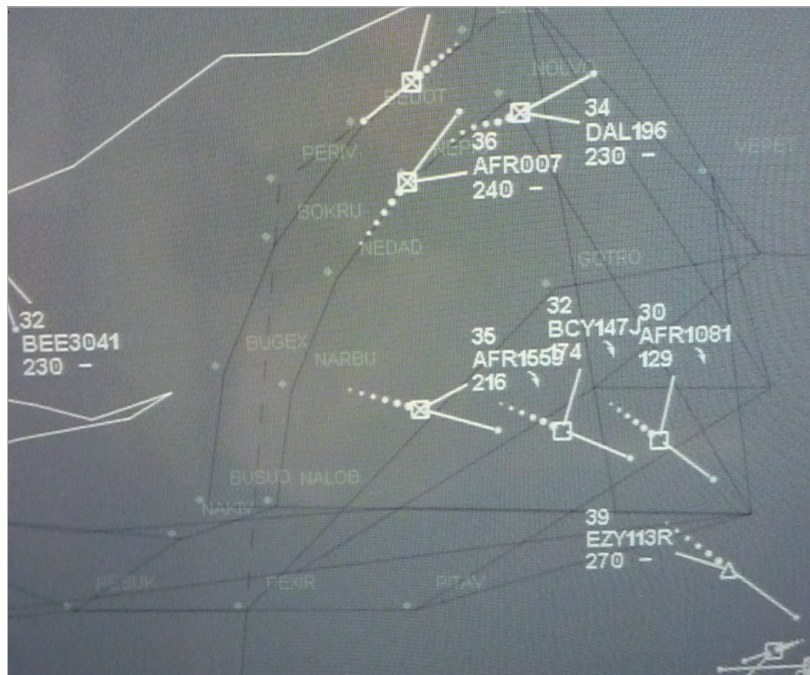
Maurice Georges, director of the French Air Navigation Service Provider (DSNA), said: “I am very pleased that DSNA has the leadership of this project. I hope that the Point Merge concept in extended TMA will be a real progress for the entire aviation community to meet traffic growth safely, efficiently and with minimal impact on the environment”.



How Point Merge works



Live Trials in November & December (4 Saturdays)



Picture of ATC screen during the live trials in June (Paris ACC)

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skyguide  
**New tower simulator in operations**

skyguide has a high level of demand for air traffic controllers to staff its control towers. The new tower simulator will guarantee the Swiss air navigation service provider's training capacity for years to come and enable it to offer training facilities to external customers, giving it a stronger position on the European training market.

**Panoramic view with front projection**

In order to meet the highest training standards, the new 3D tower simulator provides a 360-degree panoramic view. The skyguide training center in Dübendorf now has three state-of-the-art tower simulators which offer a realistic repre-

sentation of the view from the towers of a number of different airports. The newly opened „TOSIM green“ simulator has 17 central HD projectors which provide better image quality than conventional systems with back projection.

**Modern air navigation systems**

The new simulator is also equipped with the latest air navigation systems, including integrated communication and flight plan information functions, which will be used to train the air traffic controllers who will be working in paperless workplaces.

**Better quality training**

As a result of the new simulator's more efficient air conditioning system and higher image contrast, trainees can spend longer inside it, because they become tired less quickly. The TOSIM green has enough space to accommodate three trainees and the necessary instructors.



skyguide, TOSIM – Green Totale



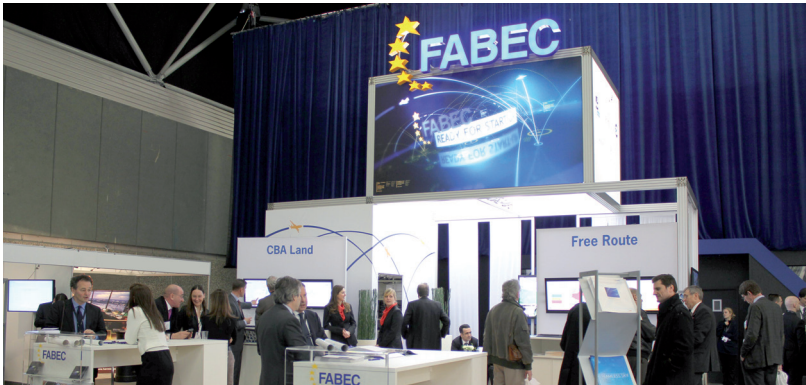
skyguide, TOSIM – Green Controllers, back

skyguide now has a tower simulator which meets the needs of a professional, forward-looking and, at the same time, cost-effective training programme.

 **World ATM Congress 2013**  
Operated by CANSO in association with ATCA

Madrid, Spain  
12. - 14. February 2013

Meet FABEC at stand 335



FABEC Booth



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## 08 – FRAMAK

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### FABEC Airspace Strategy **Maastricht, DFS and Lufthansa pioneer large scale Free Routing**

While there are several free route initiatives underway throughout Europe, the “Free Route Airspace Maastricht and Karlsruhe” (FRAMaK) project, which was initiated in June 2012 in a two-year contract with the SESAR Joint Undertaking (SJU), has a number of unique attributes.

It is the first free-route programme which aims to offer cross-border direct (DCT) routes in the busy and complex core area of Europe, essentially doing away with the boundary between the areas of responsibility of MUAC and Karlsruhe for those aircraft operators taking advantage of the new, direct routes. FRAMaK will also demonstrate the feasibility of UPRs, allowing aircraft operators to fly the most efficient routes to e.g. exploit prevailing weather conditions for fuel efficiency.

“Out of all the free route airspace initiatives underway in Europe at the moment this is in the most complex airspace,” said Theo Hendriks, MUAC Local Project Manager. “Our solutions will be quite helpful for the implementation of free route operations in many other areas in Europe.”



Karlsruhe Upper Area Control Centre



The new route structure

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“A first set of more than 150 new cross-border direct routes will become available in December 2012,” said Morten Grandt, FRAMAk Global Project Manager at the DFS. “Like MUAC, Karlsruhe has been offering direct routes for some time now but this is the first time these will be offered across the border. There were more than 770,000 flights in 2011 which crossed the border between the two centres. At the start of the programme we will introduce these routes mostly through the Karlsruhe East Sectors but that still means that 225,000 flights a year, to a significant extent, will be able to make use of these FRAMAk directs.”

According to Raymund Obst, Lufthansa Local Project Manager, “We anticipate that on the planning side we will have much better predictability, there will be an overall reduction in fuel burn and eventually, with the introduction of total free route operations, we will be able to get away from the ATS network altogether. The FRAMAk project will allow us to gain experience on the potential benefits from this, including calculating when to use direct routes and when to take up the option, en route, of UPRs to exploit jet-streams, for example. We aim to pioneer such total free route options in the third or fourth quarter of 2013.”

“We need to understand what airlines really need – are they looking for shorter routes in all cases or can longer ones be more efficient in certain cases?,” according to Jürgen Regner, the Karlsruhe UAC’s Local Project Manager.

On top of the cross-border directs available to all aircraft operators, the FRAMAk consortium members are planning to operate 50 UPRs with Lufthansa Airbus A320s, looking at the business and operational cost/benefit equation from operating UPR flights. UPRs go beyond just “direct routing” and allow for user-preferred trajectory planning, without reference to a fixed route network by using any intermediate sequence of way points, whether or not published.



Maasrtricht Upper Area Control Centre

The first stage is to connect the current Free Route Airspace Maastricht (FRAM) direct route network with its Karlsruhe equivalent, the Free Route Airspace Karlsruhe (FRAK) network, with at the same time taking every opportunity to improve connections resulting in shorter overall routes. In the preliminary stages aircraft will cross the border using pre-set coordination points but eventually the consortium members plan to introduce new flexible crossing points to make flight lengths even shorter. One challenge is to maximize the availability of these routes up to 24 hours a day. New transitional routes to connect FRAMAk airspace with the major airports below, including Frankfurt, Brussels, Amsterdam and Munich, will also be introduced.

Although all consortium members say it is too early to quantify fuel burn benefits, average route extensions over some areas in Europe are running at 49 km per flight, or 5 to 6% of the flight distance. Today, in the FRAMAk area, upper air routes include route extensions of around 3% (or 15 NM) on average. As part of the performance targets set within Single European Sky regulations ANSPs will have to reduce flight extension by an average of 0.75% by 2014.

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## 10 – FRANKFURT AIRPORT

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Frankfurt Airport

### Trial to reduce noise nuisance

On 28 June 2012, trial operations began at Frankfurt Airport for Dedicated Runway Operations (DROps), a noise abatement procedure based on the preferential use of take-off runways and flight routes. As the procedure can only be used during times of low traffic volume, it has so far only been applied during the night. The trial operations will show whether it can also be used on a permanent basis in the early morning hours between 5.00

and 6.00 hrs. DROps will be applied every other day, alternating with normal operations. DROps will be used on odd days, the normal concept of operation on even days so as to create so-called noise breaks and temporarily relieve the populated areas below the departure routes: When easterly winds prevail, all departures will be conducted from take-off runway 18, also called Runway West. When westerly winds prevail, aircraft will

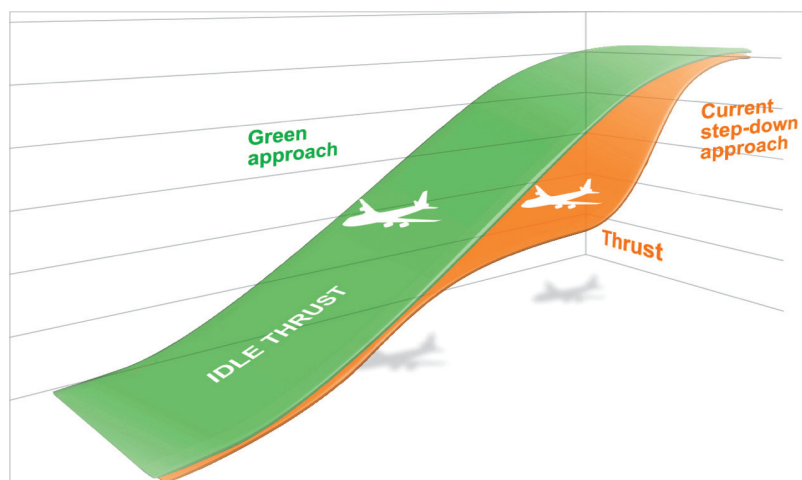
take off from the parallel runway system, leaving Runway West unused. In addition to continuous descent operations (CDO), DROps is the second procedure which was agreed upon in the Alliance for Noise Protection and which is now being tested in trial operations. Owing to runway construction work scheduled for the years 2012 and 2013, however, DROps will be subject to restrictions during this period of time.

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Frankfurt Airport

### DFS introduce Continuous Descent Operations

On 31 May 2012 CDO trial operations began at Frankfurt Airport. Whenever possible aircraft will stay higher for a longer period of time and then continuously glide all the way down to final approach. With this, DFS is implementing one of the measures agreed by the Alliance for Noise Protection. The procedure was tested for two days in the month of February 2012. During the trials, it was established that the existing flight procedures do not allow CDO to be used in times of high traffic volume.



Continuous Descent Operations (CDO)

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DFS

### Aeronautical charts for all neighbouring countries

DFS Deutsche Flugsicherung GmbH has published two new aeronautical charts from the „Visual 500“ series for Switzerland and north-eastern France. DFS now offers aeronautical charts at a scale of 1:500,000 for all of Germany's neighbouring countries. The aeronautical chart for Switzerland covers the Swiss territory between Lake

Constance and the Italian town of Como. The chart for France shows the region east of Paris up to Karlsruhe and, in a north-south direction, from Luxembourg to Geneva. All aeronautical information and topographic data in the chart series „Visual 500“ are shown in the same clear layout as on the ICAO 1:500,000 charts for Germany.

The key of the Visual 500 for Switzerland is published both in French and Italian. Die Visual 500 chart sheets cost € 12.50 each and can be purchased online at [www.dfs-aviationshop.de](http://www.dfs-aviationshop.de) or from other distributors of aeronautical products.

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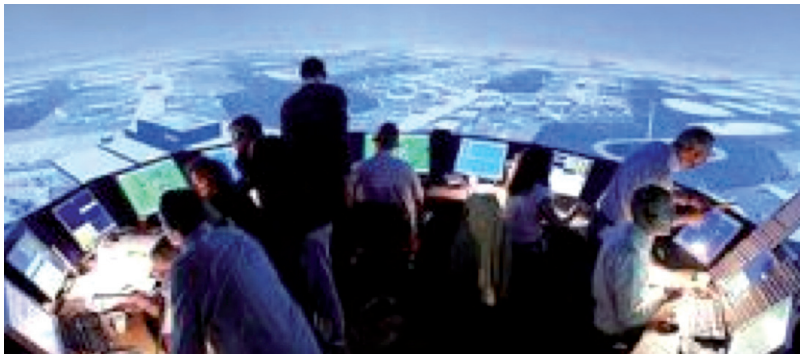
The Netherlands

## LVNL and NLR conduct SESAR simulation

Thursday 20th and Friday 21st of September the first, by NLR and LVNL organized SESAR real-time simulations were held at NLR premises. Within the SESAR project, NLR and LVNL have teamed up as consortium LVNL to jointly execute projects. These real-time simulations were part of SESAR's 'Tactical TMA and En-route Queue Management', led by ENAV (the Italian Air Navigation Service Provider), in which new techniques are used to ensure that aircraft arrival can be planned earlier.

The advantage of early planning is that a more stable and more predictable stream of aircraft is created while minimizing delay. When the planning horizon (from Schiphol airport) is extended in the small Dutch airspace, one easily extends past the Dutch border. For that reason Maastricht Upper Area Control, responsible for handling the high traffic above the Netherlands, Belgium and North-Germany, was also involved in these simulations. Over the last months, a simulation environment was set up on NLR's

research ATC simulator NARSIM allowing inbound traffic to be coordinated above Germany. The Maastricht controllers receive a data-message with a request to clear an inbound aircraft for a certain speed. In The Netherlands, this speed is then subsequently adopted by the LVNL controllers. The speed advice is calculated such that a stable stream of inbound traffic to Schiphol is created that can be more easily handled in the last phase of the flight. This concept, in which speed advice is automatically calculated for inbound aircraft is part of the so-called Speed And Route Advisory (SARA) project of LVNL.



During the simulation

The above 'Extended Arrival Management' operations form a crucial part of the SESAR concept. The results of the simulation will contribute to the overall operational concept of SESAR which aims to modernize the European ATM system.

The Netherlands

## MUAC shares data with RNLAf

MUAC is leading the programme to establish an automated radar data processing system (RDPS) and a flight data processing system (FDPS) feed from MUAC to remote Royal Netherlands Air Force (RNLAf) air bases as part of a highly significant pioneering project of data sharing between civil and military air traffic management (ATM) agencies in the core area of Europe. The project, called the "Shared ATS System" (SAS), is on course to deliver an initial operational capability to the RNLAf in December this year. A "virtual" remote military ATC centre was build using MUAC local systems, comprising an Radar- and Flight Plan Data System as well as Short-

Term Conflict Alert (STCA) data services handling live MUAC and Dutch military traffic and a human-machine-interface (HMI), all systems customised for the military user. Radar, flight plan and other operational data such as STCA is fed via a 200km dedicated line to the Nieuw Milligen Air Operations Control Station and 7 airbases, which manage RNLAf ATM operations, allowing the virtual centre to be operated remotely by the RNLAf en-route, approach and tower controllers.

According to the current timetable the initial operational capability is planned for December 12 this year, with two of the three RNLAf radar

approach control (RAPCON) clusters using SAS operationally. The third RAPCON is planned to use SAS in March 2013. Full operationally capability is planned for October 2013 with RNLAf en-route, approach and tower control operations using the SAS system.



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## 12 – LIEGE AIRPORT

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Liege Airport

### Belgocontrol implements new P-RNAV procedures

On 26 July 2012 the new departure procedures for Liège were published. The so-called “P-RNAV overlays” were introduced as an addition to the conventional departure procedures. This calls for some explanation.

A conventional procedure is entirely based on the use of so-called ‘radials’ of VOR navigation beacons.

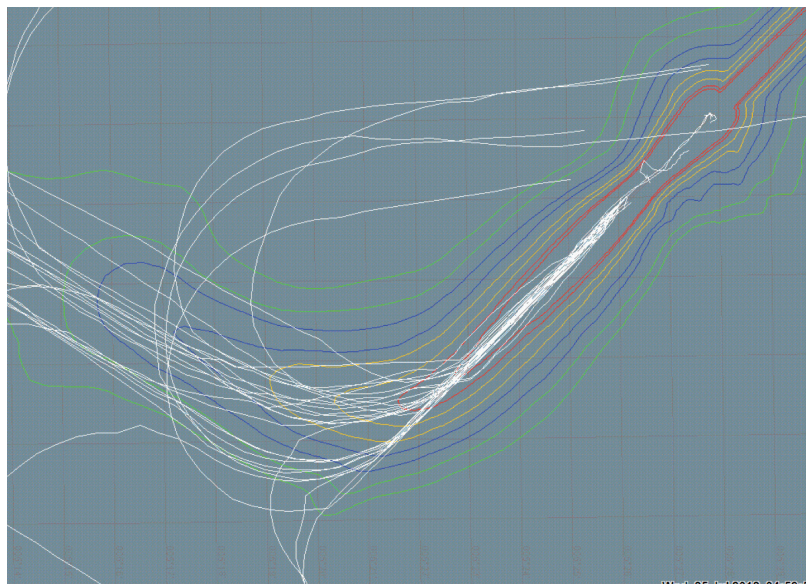
However, this rather limits the variation possibilities in lateral trajectories. ‘Area navigation’ is a different technique that allows to bypass these restrictions by making optimal use of the present infrastructure (DME and GPS) and the navigation possibilities of modern aircraft. Moreover, “Precision Area Navigation” (P-RNAV) adds an extra dimension of accuracy,

surpassing the results obtained through the use of conventional procedures.

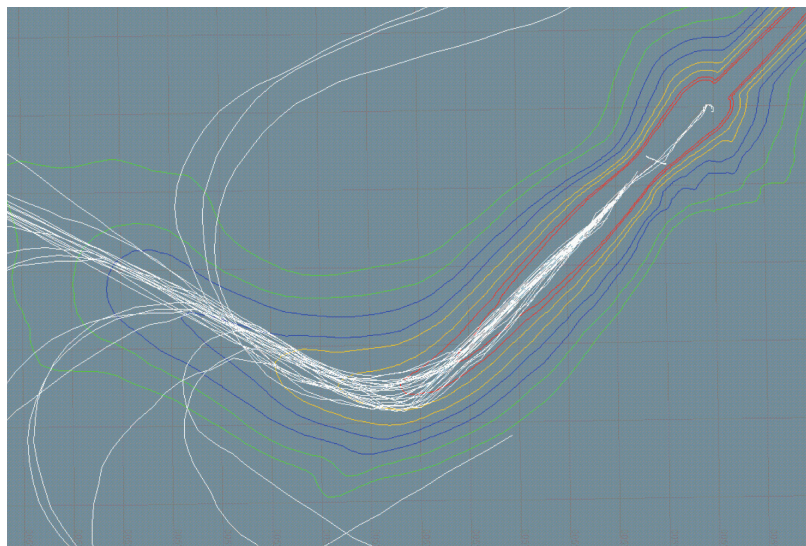
At Liege airport, policy requires that departing aircraft fly as much as possible within calculated noise contours. This is where the P-RNAV concept offered a solution. In collaboration with TNT and Jetairfly a number of test flights were conducted so as to gain a better insight in the manner in which aircraft perform the first turn after departure. After that, it fell to our ‘procedure designers’ to elaborate the departure procedures, taking into account all applicable standards. In parallel, DGO/ATS evaluated the possibilities of the existing DME infrastructure in a 100 kilometer radius around Liège. It ensued that it was amply sufficient to have the aircraft fly the procedures not solely on GPS but also in DME/DME mode.

The adjoining illustrations, which indicate the trajectories of departing aircraft, speak for themselves: P-RNAV enabled a spectacular concentration of departing aircraft within the published noise contours!

#### Liège departures – before introduction of P-RNAV procedures:



#### Liège departures – after introduction of P-RNAV procedures:



In the beginning of 2011, only 60% of the flights departing from Brussels Airport was able to fly P-RNAV procedures. In the meantime, this ratio increased to 80% and P-RNAV overlays will also be published for the new Brussels departure routes, at least in those places where a concentration of tracks is desired. Implementation of P-RNAV procedures must be considered in a bigger picture, the ICAO initiative ‘Performance Based Navigation’, but that is a whole different story in itself.

The white lines represent the trajectories of departing aircraft; the other colours mark the applicable noise contours.

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Civil-military cooperation

**LARA: reinforcement of efficiency**

Cooperation between civil and military air traffic control is of paramount importance for improving performance within FABEC and beyond. Making military zones available for civil traffic can increase capacity, reduce aircraft fuel consumption and have a positive impact on the environment. Efficient coordination and exchange of information are essential for effective cooperation, and this is precisely the goal of the LARA (Local and sub-Regional Airspace Management Support System) software, which is now used operationally by the Belgian Defence, Belgocontrol and MUAC.

LARA intervenes at all levels of air space management: at the strategic level (FUA1 – Flexible Use of Airspace level 1) for the planning of operations and at the pre-tactical level (FUA 2), that is to say at least one day beforehand, it gives an overview of the status of military areas and enables slots requests in these areas to be submitted to the military airspace manager in order to accommodate peak civil traffic. At the tactical level (FUA 3), D-day, it indicates the real-time availability of military areas with colour codes immediately identifiable by the air traffic controller and enables the Military Airspace Manager to activate or deactivate them.

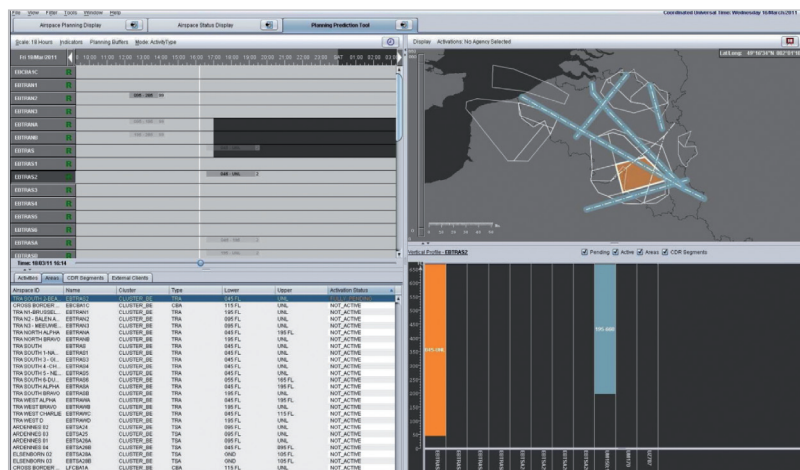
At present, only the Supervisor and Traffic Manager’s positions in CANAC 2 and Maastricht UAC are equipped with the LARA system. In a second step this information shall be available in real time direct to the control positions at Belgocontrol and Maastricht. On 2 April 2012 the Belgian Air Force started operational use of LARA as the preferred replacement to its legacy local airspace planning tool. MUAC offered to host the server for the Belgian Air Force and this now connects to all military ATC units in Belgium, supported by a back-up unit in Belga Radar’s Semmerzake facility.

The next step is to integrate with other LARA clusters most notably with one being deployed by the Royal Netherlands Air Force. There is also possible integration with the UK, which has already imple-

mented LARA at AMC level. Other FABEC national air forces are using their own airspace planning tools, so the focus will be on integrating these into a common network.

LARA has also been selected in the framework of SESAR as a platform for validation work, as once the coupling takes place it will be

possible to simulate a wide number of civil and military situations. It is part of a wider vision that in future all systems used for airspace bookings should be interconnected, or connected to a central database allowing everyone to have the same view and lodge requests.



**LAST MINUTE UPDATE**

**Passing on the baton**

On 17 January 2013, Peter Naets (Maastricht UAC) will pass on the duties of Chairman of the ANSP FABEC Group, AFG, to Hans Plets (Belgocontrol). At the turn of the year, Peter Naets will return to Maas-

tricht UAC and will take on his former job of Head of Engineering. The new Chairman AFG, Hans Plets, is currently head of the Performance Management Group (AFG/PMG) and has been active in FABEC for four years.

**ANA Luxembourg**

On 1 January 2013, Ender Ulcun, CEO ANA Luxembourg, will take over a new task as advisor to

the Minister of Transport. He will be replaced by John Santurbano as new Acting Director.



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## 14 – NEW PEOPLE / NOMINATIONS

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DFS

### **Prof Scheurle appointed CEO**

The Supervisory Board of DFS Deutsche Flugsicherung GmbH appointed Michael Odenwald, Ministerialdirektor at the Federal Ministry of Transport, Building and Urban Development, as its new Chairman. The election was necessary as the previous Chairman, the former State Secretary Prof Klaus-Dieter Scheurle, had resigned from office and left the Supervisory Board.

The Supervisory Board appointed Prof Scheurle as the new Chairman and CEO of the Board of Managing Directors of DFS with effect from 1 January 2013. He will succeed Dieter Kaden, who will retire at the end of the year after 20 years in office.

The Deputy Chairman of the Supervisory Board, Michael Schäfer, thanked Prof Scheurle for his accomplishments during his period as Chairman. The DFS management is now well placed to successfully position itself for the new era of economic regulation and increasing competition, and advance the company further.

The appointment of the new CEO completes the restructuring of the Board of Managing Directors. From 1 January 2013, Prof Scheurle will join Robert Schickling, Managing Director Operations, and Dr Michael Hann, Director Human Resources and Labour Director.

Dr Hann took up his position on 1 September 2012.



Prof. Klaus-Dieter Scheurle

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MUAC

### **Ian Middleton takes up function as MUAC Head of Operations**



Ian Middleton

On 17 September 2012 Ian Middleton joined MUAC to take up the function of Head of Operations at MUAC. Since January 2011 Ian Middleton has been holding the post of Deputy Director Single Sky in EUROCONTROL Brussels. Prior to that, he occupied different managerial functions within the Agency, inter alia Deputy Director of the Centre of Expertise of the EUROCONTROL Co-operative Network Design Directorate and Head of the Training Division at the EUROCONTROL Institute of Air Navigation Services in Luxembourg.

Before joining EUROCONTROL in 2003, Ian Middleton worked in the UK Civil Aviation Authority as Assistant Director in the Directorate of Airspace Policy. He has also worked as advisor to the CEO of UK NATS for 2 years.

Ian Middleton brings with him a wealth of ATM expertise, both in the civil and military environment; his wide-ranging managerial and strategic experience will be an asset for MUAC and FABEC.

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skyguide

### **Hans Bracher Head of HR**

Hans Bracher will be the new Head of Human Resource Management in skyguide. This new appointment forms part of the further development of the corporate organisation. It will strengthen skyguide HR significantly.

With the challenges facing skyguide, its personnel will play a decisive role. As part of the further development programme to increase the performance of the organisation, particular attention will, therefore, be focussed on Human Resource

Management. HR will report directly to the CEO and be awarded a permanent seat in the Executive Board. To reinforce this impulse still further, skyguide has made a new appointment as Head of HR.

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Performance

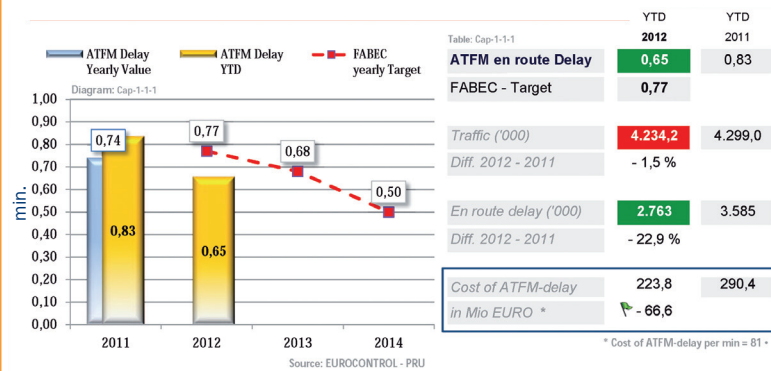
**Continuous decrease in air traffic**

In the ECAC area, in September 2012, a 3% decrease in traffic was observed compared to the same month in 2011. Demand for air transport is continuing to flatten-out with business and consumer confidence still slipping. Despite recession conditions in Europe, airlines in the region have continued to expand on international routes, growing capacity on those

routes by over 4% (source: IATA). The update of the seven-year forecast of flights movements 2012 - 2018 is for 1.5% fewer flights in 2012, little changed from the February forecast. Nevertheless, very high oil prices, a weaker economic outlook and other recent events (airline failures, slower-than-expected recovery from the Arab Spring) have led to a downwards

revision of the forecast over all. The growth in 2013 is now expected to be flat (down to 0% from 1.5% in the February forecast; forecast for FABEC area is even negative: -0.2%) (source: STATFOR). ATFM delays due to ATC capacity show a decrease of 51% with respect to the same month last year. The average ATFM delay per flight due to ATC capacity is now of around 0.43 min/felt. In the FABEC area, traffic decreased by 2.0% in September, which led to a 1.5% traffic decrease over the first 9 months of the year whereas the en-route ATFM delay decreased by 17% in September (-23% in cumulated terms). This resulted into a YTD en-route ATFM delay per flight of 0.65 min/felt in 2012, compared with 0.83 min / felt in 2011. This significant performance improvement should lead to reach the FABEC target set for 2012: 0.77 min/felt. In cumulative terms, FABEC IFR traffic is now 6.8% below the traffic forecast considered in the FABEC Performance Plan.

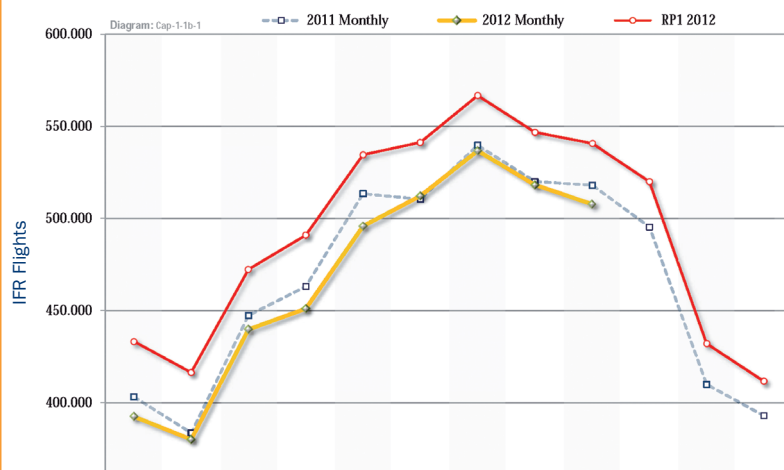
**KPI Nr. 1: Average en route ATFM delay per controlled flight (FABEC)**



**FABEC Traffic Development**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2011 Monthly	403.192	383.567	447.398	463.055	513.467	510.434	539.709	520.025	518.126	495.376	409.975	392.950
2012 Monthly	392.469	380.066	439.816	451.099	495.827	512.229	536.745	518.211	507.775			
Growth (%)	-2,7 %	-0,9 %	-1,7 %	-2,6 %	-3,4 %	0,4 %	-0,5 %	-0,3 %	-2,0 %			
RP1 2012	433.284	416.389	472.409	490.931	534.657	541.276	566.782	546.785	540.756	520.002	432.098	411.820
2012 / RP1 (%) - Monthly	-9,4 %	-8,7 %	-6,9 %	-8,1 %	-7,3 %	-5,4 %	-5,3 %	-5,2 %	-6,1 %			
2012 / RP1 (%) - Cumulated		-9,1 %	-8,3 %	-8,2 %	-8,0 %	-7,5 %	-7,2 %	-6,9 %	-6,8 %			

2011 Monthly and 2012 Monthly values represent actual movements (source: PRU). RP1 2012 represents the traffic forecast underpinning the FABEC Performance Plan, split into monthly values on the basis of a FABEC consolidated methodology.



**FABEC Performance**

This report is part of the first FABEC Capacity Report.

Underpinning the objective of one common capacity target as laid down in the FABEC Performance Plan, FABEC has started to report commonly. The full report is available under: [www.fabec.eu](http://www.fabec.eu).



List of abbreviations

<b>ACC</b>	Area Control Centre	<b>DCB</b>	Demand Capacity Balancing	<b>NM</b>	Nautical Mile
<b>AMC</b>	Airspace Management Cell	<b>DCT</b>	Cross-Border Direct Routes	<b>NSA</b>	National Supervisory Authorities
<b>ANA</b>	Administration de la Navigation Aérienne Luxembourg	<b>DFS</b>	DFS Deutsche Flugsicherung GmbH	<b>PRC</b>	Performance Review Commission
<b>AO</b>	Aircraft Operator	<b>DROps</b>	Dedicated Runway Operations	<b>P-RNAV</b>	Precision Area Navigation
<b>ASB</b>	ANSP Strategic Board	<b>ECAC</b>	European Civil Aviation Conference	<b>RAPCON</b>	Radar Approach Control
<b>ASM</b>	Airspace Management	<b>FAIR STREAM</b>	FABEC ANSPs and AIRlines in SESAR Trials for Enhanced Arrival Management	<b>RNAV</b>	Area Navigation
<b>ATC(O)</b>	Air Traffic Control (Officer)	<b>FRAM</b>	Free Route Airspace Maastricht	<b>RNLAF</b>	Royal Netherlands Air Force
<b>ATFCM</b>	Air Traffic Flow and Capacity Management	<b>FRAMaK</b>	Free Route Airspace Maastricht and Karlsruhe	<b>SAS</b>	Shared ATS System
<b>ATM</b>	Air Traffic Management	<b>FRAK</b>	Free Route Airspace Karlsruhe	<b>SES</b>	Single European Sky
<b>CANSO</b>	Civil Air Navigation Services Organisation	<b>FROG</b>	Free Route Olympic Games	<b>SESAR</b>	Single European Sky ATM Research
<b>CBA</b>	Cross-Border Area	<b>FUA</b>	Flexible Use of Airspace	<b>SJU</b>	SESAR Joint Undertaking
<b>CDG</b>	Charles De Gaulle	<b>HMI</b>	Human-Machine-Interface	<b>STCA</b>	Short-Term Conflict Alert
<b>CDO</b>	Continuous Descent Operations	<b>ICAO</b>	International Civil Aviation Organisation	<b>TOSIM</b>	Tower Simulator
<b>CEO</b>	Chief Executive Officer	<b>LARA</b>	Local and Sub-Regional Air-space Management Support System	<b>TSA</b>	Temporary Segregated Area
<b>CFMU</b>	Central Flow Management Unit			<b>TTA</b>	Target Time of Arrival
<b>CNS</b>	Communications, Navigation and Surveillance			<b>UPRs</b>	System Coordination
<b>CTOT</b>	Calculated Take Off Time			<b>MUAC</b>	Maastricht Upper Area Control Centre
				<b>VFR</b>	Visual Flight Rules

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