

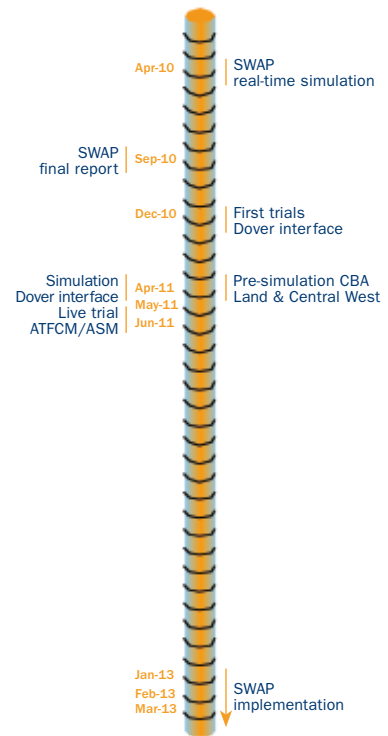
Operations trials and simulations

SWAP

As mentioned in FABEC Newsletter 10 (June 2010), the first real-time simulation for the FABEC route network – the so-called SWAP – took place in April 2010. The final report became available in September. The implementation of the amended route network is scheduled for 2013.

ATFCM/ASM live trial

Following the positive results of the field trial earlier this year (see FABEC Newsletter, January 2010), preparations are set up for an ATFCM/ASM live trial at the facilities of the Central Flow Management Unit (CFMU). The trial is expected to take place in the period May-July 2011.



CBA Land and Central West

In continuation of the AMRUFRA implementation, two project teams are working on the development of a new airspace structure for the Amsterdam FIR and the north-western part of Germany: “CBA Land” and “Central West”. A pre-simulation is scheduled for April 2011.

FABEC-Dover interface

The first trials concerning the Dover interface will take place in December 2010. If the results are positive, a simulation will be scheduled for April 2011. The improvement of this interface should result in substantial capacity and efficiency profits for air traffic between the FABEC area and the FAB UK-Ireland.

Night Network

Focus on Cargo

During the last months FABEC has implemented 115 shortened routes which can be filed during the night. A first analysis has shown that on a yearly basis the flying distances could be reduced by approximately 800,000 NM, this representing the equivalent of 4,800 tons of fuel saved, or reduced emissions of 16,000 tons of CO₂. *Page 02*

Focus on environment

New Standing Committee

The environment is one of the four performance domains imposed by the SES legislation. Just like safety, capacity and cost-efficiency, the environment already manifests itself in several FABEC organs. Presently, considering the importance of this matter in European legislation and for aviation as such, the Standing Committee Environment (SC ENV) was set up. *Page 07*

IntACT

FABEC audit cooperation

The three FABEC partners DFS, DSNA and skyguide are jointly conducting their internal audit activities in the International Audit Cooperation Team IntACT. Other partner organisations (Belgocontrol, LVNL, ANA Luxembourg, UAC Maastricht) are about to join the initiative. *Page 04*

European Commission – FABEC a step ahead

In the course of the 37th Single Sky Committee, the European Commission informed the representatives from the 6 States of FAB Europe Central (Belgium, France, Germany, Luxembourg, the

Netherlands and Switzerland) that neither the European Commission nor the Member States of the European Union have any comments on the official information on the establishment of FABEC. This

statement is a further step towards the signing of the FABEC States Agreement which will make FABEC “operational” by 2012.



02 – NIGHT NETWORK

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Night Network – Focus on cargo

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On 4 October experts from the major cargo airlines met their counterparts from the FABEC control centres at Frankfurt Airport to discuss the FABEC Night Network.

Based on a detailed analysis of the approaches and departures at the airports of Amsterdam, Brussels/Liège, Paris-Charles de Gaulle, Leipzig and Cologne the FABEC experts demonstrated which routes are filed by the cargo airlines and which not. Based on a real traffic example simulations have shown that even some of the major shortened routes are not used

although they are officially published. This might be based on the experience that a lot of direct routes are provided by the air traffic controllers on an ad-hoc basis, but in addition a clear lack of information became obvious. Due to this the airlines appreciated the information provided and agreed to take it back to their distinctive dispatch departments.

Besides this the experts discussed the influence of the temporal availability of the routes. Especially for the morning inbound rush it is of utmost importance that the scheduled flights can be flown



Jean Pierre Kahlmann, Martinair, and Jonathan Bonds, UPS



Marie-Laurence Bossy, DSNA Marseille ACC, and Tim Murphy, FedEx

and do not have to be re-planned. In addition, it was mentioned by the AO that the length of the route and the combined savings of fuel burned and emissions reduced are only one factor which influences the flight planning. Route charges are also an important issue.

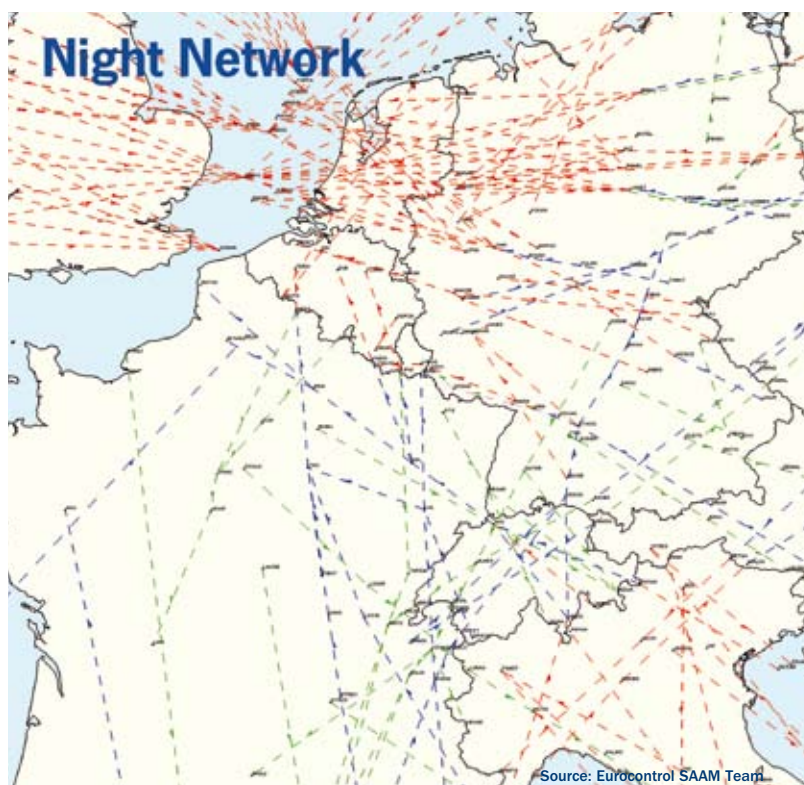
After a day of constructive discussion both parties agreed on follow-up actions. For example FABEC will provide information packages



Jürgen Regner, DFS Karlsruhe UAC, explains traffic flows

which will enable the airlines to inform their staff. Besides this the ATC experts will discuss further proposals made during the meeting like the enhancement of times of

availability. In parallel, the airlines will investigate concrete proposals for improvements at their individual hubs.



FABEC Night Network

CANAC 2 'phase 2'

New package of developments

CANAC 2, the new air traffic control centre of Belgocontrol inaugurated in February 2010, has just been improved by adding new functionalities. The CANAC 2 'phase 2' is a second package of developments that was planned since the start of the project in 2007 and activated on 28 July 2010. The main part of this phase 2 was enabling the Enhanced Mode S functionalities that allow an extended data exchange between the CANAC 2 centre and the cockpit. This results, for example, in a higher precision of the safety nets.



CANAC 2, the new air traffic control centre of Belgocontrol

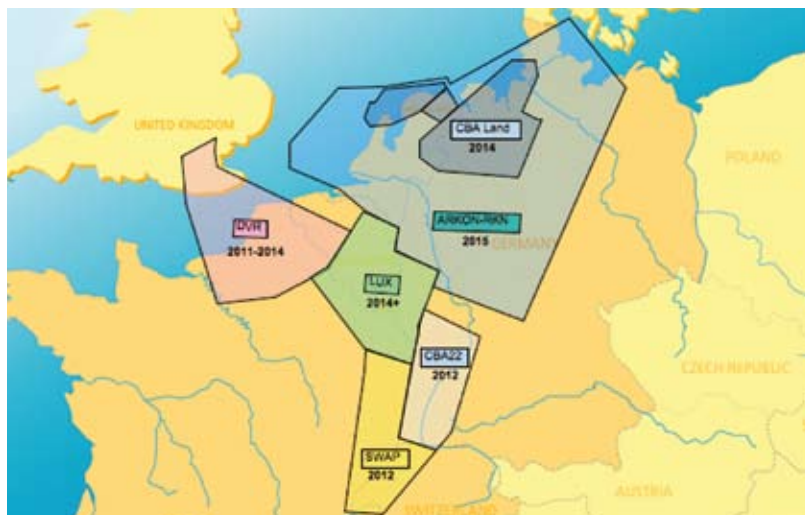
04 – IN BRIEF

Germany – New iPhone applications

DFS presents two new applications for the iPhone and iPad. The VFRiNOTAM application lets pilots retrieve German NOTAM briefings on their iPhone or iPad for planned VFR flights in Germany, Austria and Switzerland. The updated version of the VFRiCharts application now also includes charts for

Germany's neighbours – namely the ICAO chart for the Netherlands as well as 1:500,000 charts for Austria, Poland, the Czech Republic, Belgium and Denmark from the "Visual 500" series. Both applications are available in the iTunes Store.

Current Airspace Design Areas



Netherlands

LVNL wins IATA award

The International Air Transport Association (IATA) recognised the achievements of Air Traffic Control the Netherlands (LVNL) with IATA's prestigious Eagle Award, because "LVNL consults meaningfully and transparently to ensure equitable charges". LVNL has made tough decisions to reduce costs through stringent measures and has worked closely with the Dutch Government to freeze certain charges for five years.

DFS Deutsche Flugsicherung

New chairman of the Supervisory Board

In July, Professor Klaus-Dieter Scheurle, State Secretary, was elected as the new chairman of the Supervisory Board of DFS Deutsche Flugsicherung GmbH.

IntACT – FABEC audit cooperation

continued from page 01:

There is one domain in ANS where independence and interconnection are equally important: the domain of auditing. Audit cooperation in a specifically dedicated and detached team is a valuable instrument to counter blindness to the shortcomings of one's own organisation and to learn from each other and each other's organisation about auditing itself and about all domains of ANS expertise where audits are conducted.

DFS and skyguide have an extensive experience in international audit cooperation with the former TriNET, which included Austrocontrol. This cooperation, together with the new partner DSN, has

evolved into the FABEC initiative of the International Audit Cooperation Team IntACT. Its aim is to harmonise the conduct of audits and to install best practice. DSN has first participated as an observer in IntACT and since this year as a partner auditor within common and mutual audits. The CEOs of the three ANSPs confirmed their support in a letter of understanding which is also the basis of the IntACT audit mandate. IntACT encounters an enjoyably high acceptance on the working level, too.

The cooperation team is open to accept other FABEC partners to work on an even broader basis.

In early June 2010, IntACT presented its activities to the audit experts of ANA Luxembourg, Belgocontrol and LVNL. MUAC also showed its interest. The intention now is on the one hand to integrate the interested partners as observers and participants in the coordination meetings as of 2011. On the other hand, IntACT auditors would like to participate as observers in internal audits conducted within the interested partner organisations. Considering the importance of independence and interconnection of audit activities, its large scope and deep insight into the organisation, the IntACT initiative hits precisely the core of FABEC cooperation.

Solar Impulse

Successful test flights

On 7 July 2010, the solar energy powered aircraft “Solar Impulse” conducted a 24-hour test flight, and on 21 September, it flew from its home base Payerne to Geneva Airport and some hours later back to Payerne. The procedures for this ultra-light, slow and wide-body aircraft are quite demanding for ATC. Skyguide is actively accompanying this project with Swiss balloon pioneer Bertrand Piccard.

Client survey

Positive feedback for skyguide

Skyguide’s third client survey which included pilots of the airlines, general aviation and the Air Force showed a very positive trend. The participating users appreciated especially safety and flexibility of ATC services. The military pilots represent the most critical client segment. Based on these results, skyguide now launches follow-up measures for further service improvement.

Dübendorf

4th Swiss Aviation Congress

On 26 October 2010, the 4th Swiss Aviation Congress will be taking place in Dübendorf near Zurich. All major national aviation representatives will be participating and will also visit the local skyguide premises. Under the motto “More courage, fewer taboos”, Dani Weder, CEO skyguide, will be talking about the future of ANS in Europe.

Traffic Management System – First steps at Maastricht UAC

In the area of controller workload prediction and traffic management, one of the most promising technical developments is the Traffic Management System (TMS) – currently scheduled for initial operational use at MUAC in the second half of 2011. Based on data from the CFMU and trajectory predictions available from the flight data processing system, the TMS will anticipate the traffic situation not only in terms of occupancy and entry rates but also in terms of controller workload. The tool will also include a sector optimiser to identify the optimum sectorisation

and to probe alternative options. In order to enhance the traffic situation awareness, this information is complemented with a geographic display of the expected traffic flows. The first step took place in July, with the implementation of the TMS Air Situation Picture in the control room for evaluation purposes. After successful evaluation and further enhancements of this display, the MUAC flow managers will start using this information operationally. With this new tool, a more accurate traffic prediction is expected.

Stripless systems

Next steps in Switzerland

Following the implementation of the stripless system in December 2005 in the upper sectors of Geneva, skyguide now plans to harmonise all the Geneva and Zurich ACC sectors with this pioneering technology. The conceptual study is about to be finished and the corresponding stripless realisation projects passed their first milestone on 15 September. For most advantageous coordination, the overall programme will also include the Mode S and Data Link projects.

Mode S warning tool

Implementation at MUAC

In early July, the Mode S warning tool set in place at MUAC was enhanced to alert controllers should a pilot select a flight level in the MUAC airspace for a flight not normally expected to enter the airspace. Such flights are now clearly flagged on the ATC screen – an additional tool in MUAC’s daily operations aimed at detecting potential infringements at an earlier stage.

Airport Movement System

Implementation at regional airports of Belgium

The AMS (Airport Movement System) has been available at Brussels Airport since the commissioning of the new Belgocontrol control tower (end 2004). In October 2010, the system will also be implemented at the four regional airports of Belgium: Antwerp, Charleroi, Liège and Ostend. Developed by Belgocontrol, the AMS is the core system of “tower” air traffic control and allows an optimal management of aircraft and vehicle movements on the ground.



Brussels Airport: Optimal movement management thanks to AMS

06 – CIVIL-MILITARY COOPERATION

Most people in the European aviation industry know ‘their’ air navigation service providers. We mean civil ANSPs, of course, because even civil ANS professionals are quite often unaware of their military counterparts. The creation of FABEC relies not only on international cooperation but also on a close civil-military partnership, with greater transparency of the military ANSPs. This article is the fifth of a series on the military and civil-military ANS situations in each of the six FABEC countries.

The Belgian case

To know more about the Belgian view on the civil-military cooperation within FABEC, we met **Lieutenant-Colonel Dirk De Smedt**, who has been the head of Airspace Control Operations at the headquarters of the Belgian Air Component for four years. One could say, the regulator of the Belgian military ATM, air defence and AIM services. Within FABEC, he represents the Belgian military State interests in different State and ANSP FABEC groups and task forces.



Lieutenant-Colonel Dirk De Smedt

What do you expect of FABEC?

I believe that FABEC should deliver the benefits that were identified in the FABEC Feasibility Study Report: € one billion (cumulated till 2025) that ANSPs could save by cooperating on technical systems and training, rationalisation of CNS means and service provision defragmentation, and many other billions that can be saved by providing the required capacity, with the shortest possible routes for the aircraft operators. And this of course while the Air Forces can conduct their training and operations, at the smallest possible price for the tax payers.

Do you think that is achievable?

I have been working for 20 years in the core area, in the most dense and complex airspace of Europe. In those 20 years, we have made enormous progress in the flexible use of airspace and developed the first automated airspace management system, allowing to alleviate some bottlenecks, such as REMBA and Luxembourg, in the Maastricht UAC Brussels Sector Group, and to provide data to the EUROCONTROL PRISMIL project (Pan-European Repository of Information Supporting Civil-Military Performance Measurement) and the PRC. Additionally, we

created the first cross-border areas of Europe with France. These efforts have helped Maastricht UAC, which could be seen as the FAB prototype, and Belgocontrol to keep a low level of delay and therefore contribute positively to the PC target (EUROCONTROL Provisional Council) of max. 1 minute delay per flight, and aided adjacent ANSPs to accommodate their traffic.

With the introduction of performance measuring, monitoring and steering at EU, FABEC and national level, I believe that best practices will be identified which then can be introduced at FABEC level. I also think that the automation of airspace reservations, linked to capacity and route planning, will deliver the required future capacity and route reductions. That is why we are now busy introducing LARA (Local And Regional Airspace Management System) together with our civilian partners in Belgium. This should allow us to use the airspace at optimum level for civil customers, while giving the required operational flexibility to our Air Force.

The defragmentation of the service provision is of course a far more sensitive issue for most FABEC partners, but we, the Belgian

Military, have studied co-location of ATM services and integration of AIM services. According to those studies, there are some win-win scenarios possible, which is a FABEC pre-condition. Reduction of the ATM costs for the military is one of the Declaration of Intent performance targets. We are now waiting for a political decision.

Finally, we shouldn't forget the multiple national initiatives, like the HULBAR project in Belgium, reducing flying distances for half of the arrivals at Brussels South Airport in Charleroi by 30 NM, while increasing safety. Added to the SESAR projected advantages, all this should allow us to deliver what the airspace users, civil and military, want.

What impact has FABEC on your organisation?

FABEC, as well as SESAR and other SES (II) evolutions have increased workload and pace enormously. In a governmental department that is continuously shrinking in budget and size, this has been and still is a serious challenge. But it also forces us to look for rationalisation and international cooperation, which are at the heart of the FAB idea. I, as well as all of my staff involved,

continued from page 06:

have also learned a lot these last four years thanks to FABEC.

We have started to know each other's strengths and sensibilities in FABEC. This will allow us to build the trust needed to act as one, and deliver what is expected, both at State and at ANSP level.

SESAR – B3: part of the green component

B3 is a consortium composed of Belgocontrol, Brussels Airport Company and Brussels Airlines that aims to explore ways to maximise the use of Continuous Descent Operations (CDO) at Brussels Airport. The B3 consortium signed a contract with SESARJU in September 2010 and just launched its programme, e.g.

carrying out test flights validating solutions in order to reduce CO₂ emissions. Currently, the first tests are being conducted until December 2010. Though they are not part of the consortium, Thomas Cook, Jetairfly, DHL and Singapore Airlines Cargo are also participating in the tests.

Focus on environment

continued from page 01:

In June this year, the ANSP Strategic Board (ASB) approved the creation of a new Standing Committee Environment. Chaired by Elisabeth Peeters, Environmental Advisor Aviation at Belgocontrol, the SC ENV provides advice and strategic orientation to the ASB in developing an environmental policy for FABEC.

The other missions of the SC ENV are to develop an approach for evaluating the impact on the environment and to provide expertise in fixing environmental performance indicators. The objective is to optimise performance and operational measures in favour of the environment. In practical

terms, this means identifying areas with potential for FABEC environmental performance optimisation such as continuous climb and descent operations, performance-based navigation, flexible use of

airspace etc. Besides this systemic approach, best practices of the ANSPs will be exchanged, showing the room for improvement but also the limiting factors.



François Castellucci (ANA LUX), Thierry Brégou (skyguide), Elisabeth Peeters (Belgocontrol, Chairman), Yves Ghinet (Belgocontrol, secretary), Geoffroy Ville (DSNA), Patricia Bier (LVNL), Flemming Nyrup (MUAC). Absent during the photo shoot: Manfred Dieroff (DFS) and Hans Plets (Belgocontrol and AFG observer).

European Commission Aviation Platform

Following the volcanic ash crisis of spring 2010, the European Commission decided to create an aviation platform in order to improve coordination of the whole aviation industry within the EU. FABEC ASB Chairman Daniel Weder will be participating in this platform. The first meeting took place on 20 October.



List of abbreviations

ACC	Area Control Centre	CO₂	Carbon Dioxide	NM	Nautical Mile
AIM	ATFM Information Message	DFS	Deutsche Flugsicherung GmbH	NOTAM	Notice to Airmen
AMRUFRA	Amsterdam Ruhr Frankfurt	DHL	DHL International GmbH	PC	Provisional Council
AMS	Airport Movement System	DSNA	Direction des Services de la Navigation Aérienne	PRC	Performance Review Commission
ANA	Administration de la Navigation Aérienne	EIP	Early Implementation Package	PRISMIL	Pan-European Repository of Information Supporting Civil-Military Performance Measurement
ANS(P)	Air navigation service (provider)	EU	European Union	SC ENV	Standing Committee Environment
AO	Aircraft Operator	FAB	Functional Airspace Block Europe Central	SES	Single European Sky
ASB	ANSP Strategic Board	FABEC	Functional Airspace Block Europe Central	SESAR	Single European Sky ATM Research
ASM	Airspace management	IATA	International Air Transport Association	SESAR JU	SESAR Joint Undertaking
ATC(O)	Air traffic control (officer)	ICAO	International Civil Aviation Organisation	TMS	Traffic Management System
ATFCM	Air traffic flow and capacity management	ICAO	International Civil Aviation Organisation	UAC	Upper Area Control Center
ATM	Air traffic management	LARA	Local and Regional Airspace Management System	VFR	Visual Flight Rules
CBA	Cross-Border Area	LVNL	Luchtverkeersleiding Nederland		
CDO	Continuous Descent Operations	Mode S	Mode Selective		
CEO	Chief Executive Officer	MUAC	Maastricht Upper Area Control Centre		
CFMU	Central Flow Management Unit				
CNS	Communications, navigation and surveillance				

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