

# REPORT

DSNA External  
Relation Office

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## CDM@DSNA seminar

November 29th 2016



This report is to be read with the presentations used during the seminar and accessible via <http://www.developpement-durable.gouv.fr/air-navigation-services-customer-events#e4>

DSNA is currently facing capacity challenges in line with the significant traffic growth that all actors of the air transport community have begun to notice in 2016. This strengthens the need for airspace design adjustments and collaborative ATFCM measures for which innovative working together concepts have been successfully implemented. It also relies on an improved human resources management.

Collaboration in **CDM (Collaborative Decision Making)** processes is essential in these regards. Recently, the A-CDM in Orly considerably helped a proper management of the runway works during summer 2016. However these processes should not only consist in mitigation solutions to firefight adverse situations or capacity shortages. They should also support a more long term vision towards new innovative ATM (Air Traffic Management) solutions to anticipate the expected traffic growth for the 10 years to come.

Besides, the ERATO transition in Brest and Bordeaux has shown that transparency and an anticipated and collaborative preparation were beneficial to the most impacted airlines. Such method has also proven particularly successful for the network during the ERATO transition in Bordeaux and shall be followed for ATM system transitions still to come.

Find below a detailed summary of the different subjects addressed during the plenary session

### **HUMAN RESOURCES SOLUTIONS TO GENERATE MORE CAPACITY**

2016 has demonstrated the urgent need for more flexibility in rostering in order to deliver additional capacity during peak periods, principally for the first wave of rotations and during week-ends. In October 2016, DSNA signed with 4 unions representing 80% of the ATCO (Air Traffic Controller) workforce an ambitious national social agreement aiming at increasing the availability of ATCOs where and when needed. Here is the status of the local implementations:

- Reims was the first ACC to apply flexibility in the rostering for the summer 2015. Trial was prolonged for the summer 2016 and drove significant benefits. New staffing arrangement will continue for Summer 2017;
- Bordeaux implemented a new rostering system for the ERATO transition that started November 2016;
- Paris-CDG came to an agreement that should increase capacity for summer 2017 (S17);
- The Brest negotiations are challenging. DSNA works for an agreement to be found before S17 as the capacity flaws in the Brest airspace have revealed particularly significant for the users and the network in the course of 2016;
- Marseille: Despite the newly implemented 4th control sector layer which should increase capacity, a new rostering will be studied to provide extra capacity;
- Paris: as the workforce reduces, DSNA will anticipate a change at medium term.

### **EUROCONTROL'S 2016 FEEDBACK and VISION FOR 2017**

*Real collaboration has started and major challenges and innovations are ahead.*

#### **2016**

- At a European network scale, 2016 saw a 2.5% traffic increase. However this figure hides huge variations in the demand, especially during peak hours. September was the busiest month ever (32 059 flights – source NM Monthly Network Operations Report - Analysis - September 2016).

- Delays consisted in ATC capacity shortages, ERATO transition in Brest and Bordeaux as well as industrial actions.
- The preparation of ERATO in Bordeaux with DSNA was a success and was the opportunity to build efficient collaboration in finding satisfying mitigation solutions for everyone. This will have a long lasting impact for the future. **ATM system changes should not be underestimated and transitions should be carefully planned.**
- Social agreement in France, an important step which starts to deliver results.
- Unit rates have an impact on traffic flows. This reason contributes to a distortion in normal flight planning for which ATC capacity offer has difficulty adjusting.

## 2017

- The traffic trend is not expected to shift, with the most important flows still heading towards south-western Europe. However flexibility is to be sought to adjust to the rapid shifts in traffic trends despite ATM being not as quick as airlines to adapt.
- Emphasis should now be put onto weekends which are suffering from too many delays, particularly on Saturday mornings, and despite the military not using the airspace. Consistent and realistic sector planning is needed with absolute cooperation from FMP (Flight Management Positions) in ACC.
- Find means to release the pressure on ACC about delays and performance targets when the suggested and anticipated solution from NM is beneficial for the entire network.
- Expand free route implementation (38 out of 55 ACCs)
- Need to look further into Target Times (TT) over certain way points.

## Collaborative Advanced Planning (CAP)

CAP is a daily operational procedure, integrated into a sequence of consistent flow management measures and aiming at streamlining control sectors' regulations. This process will continue to be extended to various traffic flows. Eurocontrol supports the process in France. However, from a Network Manager's perspective, what is relevant and efficient for significant-size airspace like France may not show pertinent somewhere else.

## CDM within SESAR




### SESAR 1

- SESAR 1 has produced 60 solutions in the SESAR catalogue. For DSNA, amongst these solutions, Extended AMAN (Arrival MANager) carries high expectations to improve terminal areas' performance (M€ 4 benefits in terms of fuel reduction per year and per airport). More to come in SESAR 2020 with 25 concerned airports in Europe as required by the PCP (Pilot Common Project).

### SESAR 2020

- The SESAR 2020 solutions will notably demonstrate the possibilities rendered with virtual centres. It will imply new working arrangements within ANSP.
- Cyber security will also be a strong focus within SESAR 2020 activities as it has become an utmost requirement to all ATM system deployment and operational use.
- DSNA will be involved in the definition of the airspace users' trajectory, the follow up of the CAP (Collaborative Advanced Planning), the continuation of iStream called xStream. Moreover, it will take leadership in a Free route definition for high density airspace.

## AIRLINES EXPECTATIONS FOR 2017

	<ul style="list-style-type: none"><li>• Face strong competition from the low cost carriers and in the course of adapting the ways it manages its medium to long haul operations.</li></ul> <p>For year 2017, the key drivers must be overall efficiency and intensification of collaboration.</p> <ul style="list-style-type: none"><li>• Runway works in Orly for summer 2017 must be managed even better.</li><li>• Increase in capacity at Paris-CDG for better punctuality.</li><li>• iStream must stop being a trial and become an operational reality.</li><li>• Datalink will start being used by air crews in the course of year 2017.</li></ul>
	<ul style="list-style-type: none"><li>• The years to come continue to raise strong concerns on the effects of REGULATION (EC) No 261/2004.</li></ul> <p>For year 2017, the focus should be put on costs and predictability of the ATM offer, principally during adverse situations and severe disruptions.</p>
	<ul style="list-style-type: none"><li>• Flight planning will move towards automation by using a CFSP (Computerized Flight plan Service Provider).</li></ul> <p>For year 2017, emphasis should continue to be put on collaboration for effective and short to medium term solutions.</p>

### WORKSHOP DETAILED REPORT & PANEL CONCLUSIONS

In the afternoon, 3 workshops were organised to identify the needs and expectations of our customers and partners on 3 major projects: Free Route, the Orly 2020 performance roadmap, collaborative airspace solutions. The objective was to obtain a common understanding of what is at stake, and potentially agree on a collaborative action plan.

At the end of the workshop sessions, a final panel including airlines and representative shared their views on the outcomes. Their feedback has been included in each of the workshop summaries below.

#### Workshop 1: Free route focus

##### WHAT

The major challenges to develop the Free Route concept are the complex and concentrated traffic in a confined airspace and the important number of Temporary Segregated military Areas (TSA). The cross border routes and coordination between ANSPs is also a delicate issue.

- The airlines are in favor of publishing direct routes during a longer period and with minimum flight planning constraints.
- The Computerized Flight plan Service Providers' tools are not perfect. The limitations come from the lack of data being dealt with.
- Airlines request more flexibility in their choice of routes. The risk is that too many aircraft file the same routes which will cause regulations/delays.
- Publication of direct routes is linked with military activity and airspace availability.

## HOW

The need of a top-down structure to work on free route is stated. A pragmatic approach to free route airspace must be followed to **build a common concept of operations**.

- The CFSPs are stakeholders which must be present during the discussions. Their tools will need to provide better flight planning options.
- Improve capacity to provide more options.
- The evolution of ATM systems will improve the conflict detection (ERATO and future 4-Flight system) and facilitate the flight planning processes.

**CONCLUSIONS OF THE FINAL PANEL:** Free route is an important expectation for the airline community. But the obligation for each State to implement it at a close and fixed date might lead to an inconsistent set of solutions. There is a need for coordination and project management for free route to become a reality at European level, in a consistent and optimized scheme. The Network Manager suggests taking the lead.

## Workshop 2: Orly 2020 roadmap

Discussions around the 4 pillars of the Orly 2020 roadmap:

### SAFETY:

- Avoid runway incursions by maintaining a high level of safety.
- Improvement of the ground circulation with a clear identification and communication of platform hotspots and the use of permanent and/or controlled stop bars in LVP conditions,
- Development of Pilot-ATCO cross training sessions

### ENVIRONMENT

- Generalisation of Performance Based Navigation (PBN) procedures.
- Night curfew management with Target Time of Arrival and CDM

### RELIABILITY and RESILIENCY

- Better resiliency is expected in adverse weather situations with runways 08 et 24 soon equipped with Cat III ILS
- A-CDM tools and processes: transparency and better capacity in nominal and adverse conditions.
- Deicing areas to be created
- Summer works: preparation/coordination with airlines is systematically expected.

### PUNCTUALITY AND CAPACITY

- Orly capacity is 38 departures per hour at the peak and no demand for more.
- Need to take advantage of CDG experience to have less delay and better regulation schemes:
  - in the morning because delays impact all day operations for airlines,
  - in LVP conditions.
- More collaboration with upper sectors.
- xStream with extended Aman will be tested in Orly during the summer 2017.
- A-CDM tools and processes.
- Better management of gates availability/parking slots.
- ADP is planning to implement an organization based on 2 processes: passengers and aircraft, built on an AirPort Operation Centre (APOC).

## CONCLUSIONS OF THE FINAL PANEL:

Solutions for landside, airside and terminal areas have to be synchronized.

Issues on Time based separation in Orly:

- is the benefit proven?
- linked to the commissioning of the new ATM system for towers and approaches

(SYSAT)

- required by the European Pilot Common Project (PCP) regulation.

Airlines stress that if the cost benefit analysis doesn't show it is beneficial, it should not be implemented. They note the need in CDG while not included in the PCP.

## Workshop 3: collaborative airspace solutions

This third workshop aimed at seeking concrete collaborative means to drive structural changes that correspond to the various business models in air transport. How to build together collaborative airspace solutions both in en-route and terminal areas?

### WHAT

- Collaborative plans committing to results are needed for major events.
  - Try and keep it simple
  - In case of expected network disruptions, airlines can adapt quickly as long as they are associated in finding the mitigation solutions and get the information ahead of time (depending on the project from 6 months to 1 ½ year)
- Coordination and collaboration between French ACCs to ensure consistency in ATFCM schemes.
- Airspace
  - Shift to have a city pair approach.
  - DCTs systematically given by ATC should be made available for flight planning.
  - RAD is too rigid and more options should be available.  
Find compatibility between Swiss RAD restrictions and IFPS interpretation.
  - Several intermediate way points on DCT would help in flight planning.
  - Integrate CFSPs and NM in airspace design projects.
- Involve the military in existing en route CDM processes.
- TMA airspace redesigns must be based on PBN.
- Airspace redesign at Paris CDG and Paris Orly to shorten the downwind.
- iStream & xStream projects should take into account the specificities of long haul flights (cruise performed at a fix Mach number).
- Airport-CDM needs more information: ATC capacities and airlines intentions. It would help deal with the curfew at Orly.
- The weather situation and forecast should appear on the controller's radar screen.
- DSNA needs to have information about airlines' strategies for the seasons to come in order to adjust their airspace strategy. Difficulties were noticed in 2016 in relation with tankering fuel and fleet changes. ANSP should be realistic about the added information they can effectively get from airlines depending on the point of contact they have.

### HOW

- A meeting twice a year that could take advantage of the existing ones (i.e. NM axis meetings).
  - DSNA should look into NATS initiative called Flight Planning Partnership (FPP).
- Consultation as soon as there is a change.
- Points of contact.
  - Based airlines for TMA changes.
  - National or local cooperation depending on the project.



- A national ATFCM & A-CDM governance to monitor the collaborative processes and arbitrate when needed.

#### BENEFIT FROM SESAR

- PJ07: Optimised Airspace Users Operations. Define the User Driven Prioritisation Process (UDPP)
- Ensure coherency and learn from solutions already implemented (i.e Time Based Separation in Heathrow) to shorten the implementation transition.

#### CONCLUSIONS OF THE FINAL PANEL:

Predictability and stability is awaited in airlines' operations. DSNM should continue to match its human resources with the demand to handle the increase of traffic in 2018.

#### FINAL CONCLUSION OF THE SEMINAR

CDM has been a reality for many years:

- for airports: with airlines, airport operators and the Network Manager in making the A-CDM concept and performance roadmaps a reality. A consistent development among all partners has to be secured.
- for en route: with our military colleagues, thanks to the Flexible Use of Airspace booking principles and priority rules. Efforts need now to be targeted on flight planning, enlarging participation to adjacent ANSP and CFSP.

CDM helps to combine flexibility from the airspace user point of view, and predictability from the network point a view. It shall contribute to organize the user preferred route, and eventually offer more route opportunities to be filed and flown. However the pace of change is different for ANSP and airlines. ANSP need time to train ATCO, to implement new systems, to define airspace design with requirements evolving year after year. We need to work on a better adaptability of the ATS that should be detailed in a collaborative MID TERM and LONG TERM plan. CDM will have to include the military more significantly as the Free route program is closely linked with the availability of airspace.

For DSNM, CDM is a key vector to ensure the best use of airspace capacity, and to bring more efficiency in ATS alongside with technical modernization, OPS room rostering and airspace design.

With the changes ahead and the traffic demand intensifying, this second seminar on collaborative processes proved its value: **the optimum global performance cannot be the sum of individual performances.**

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