



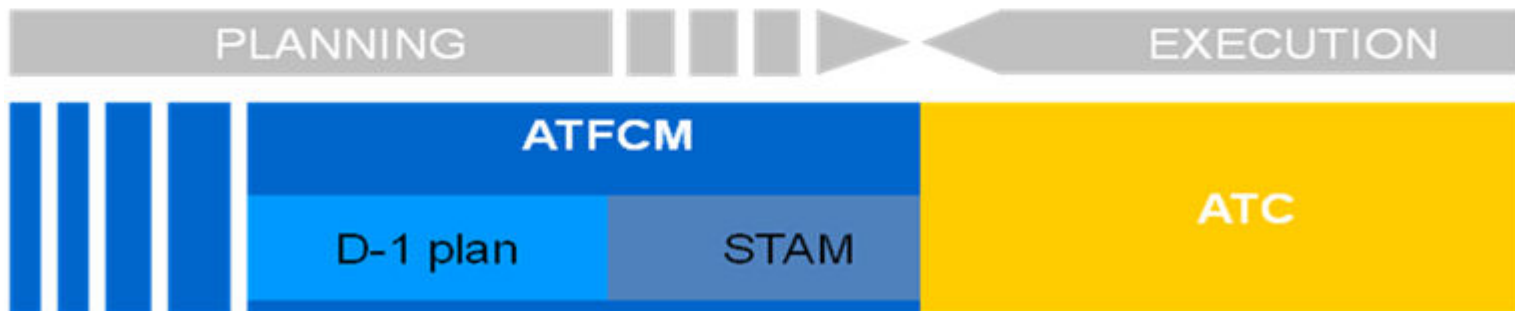
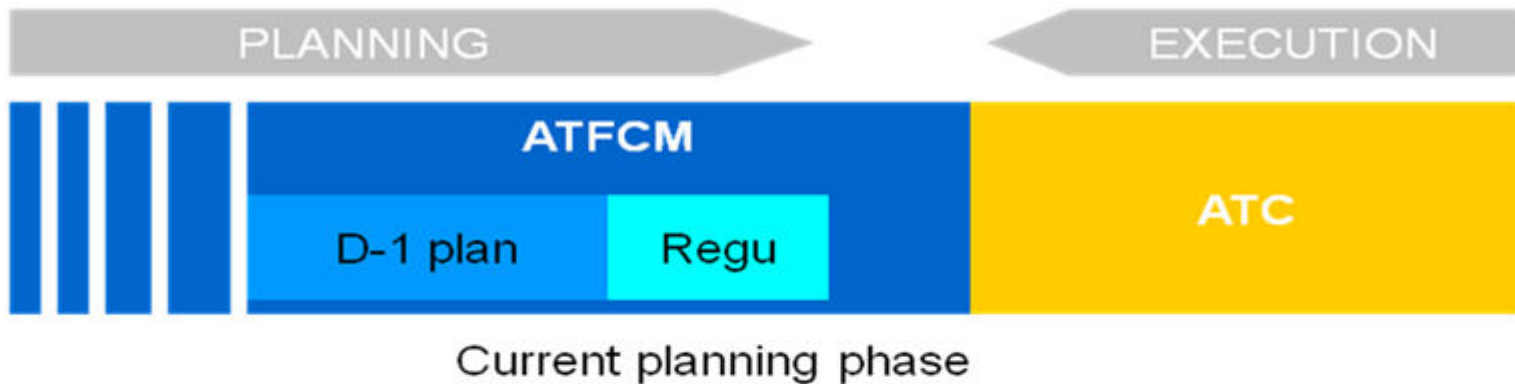
User Forum 2011

Short Term ATFCM Measures (STAM): the status SESAR WP7.6.5 dDCB

Marcel RICHARD, Expert ATCFM
EUROCONTROL Network Management

The Concept

dDCB Concept



Short Term ATFM Measures

Enablers

- Predictability
- Accurate Analysis
- Information sharing
- CDM coordination

Measures

- Incisive Measures
- Proportionate to the issue

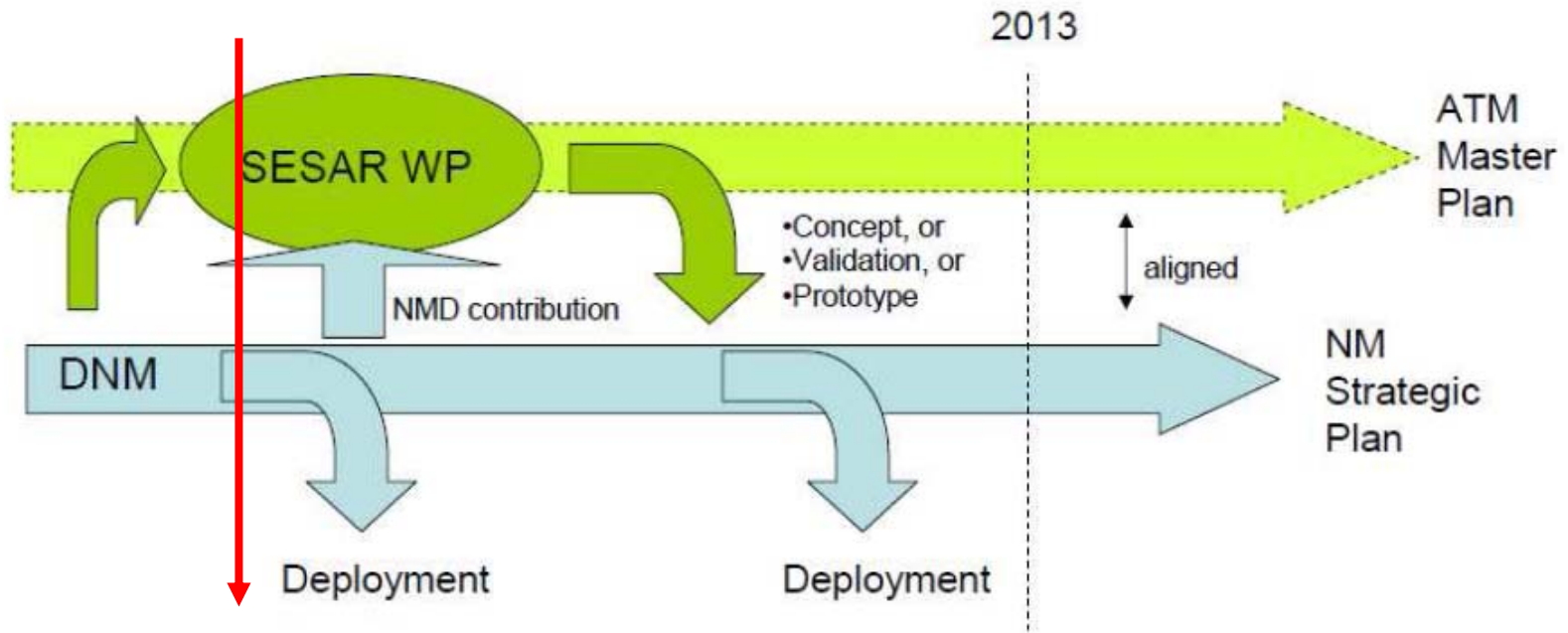
Result in

- Reduced complexity
- Increased Capacity

**Effective
Efficient**

dDCB

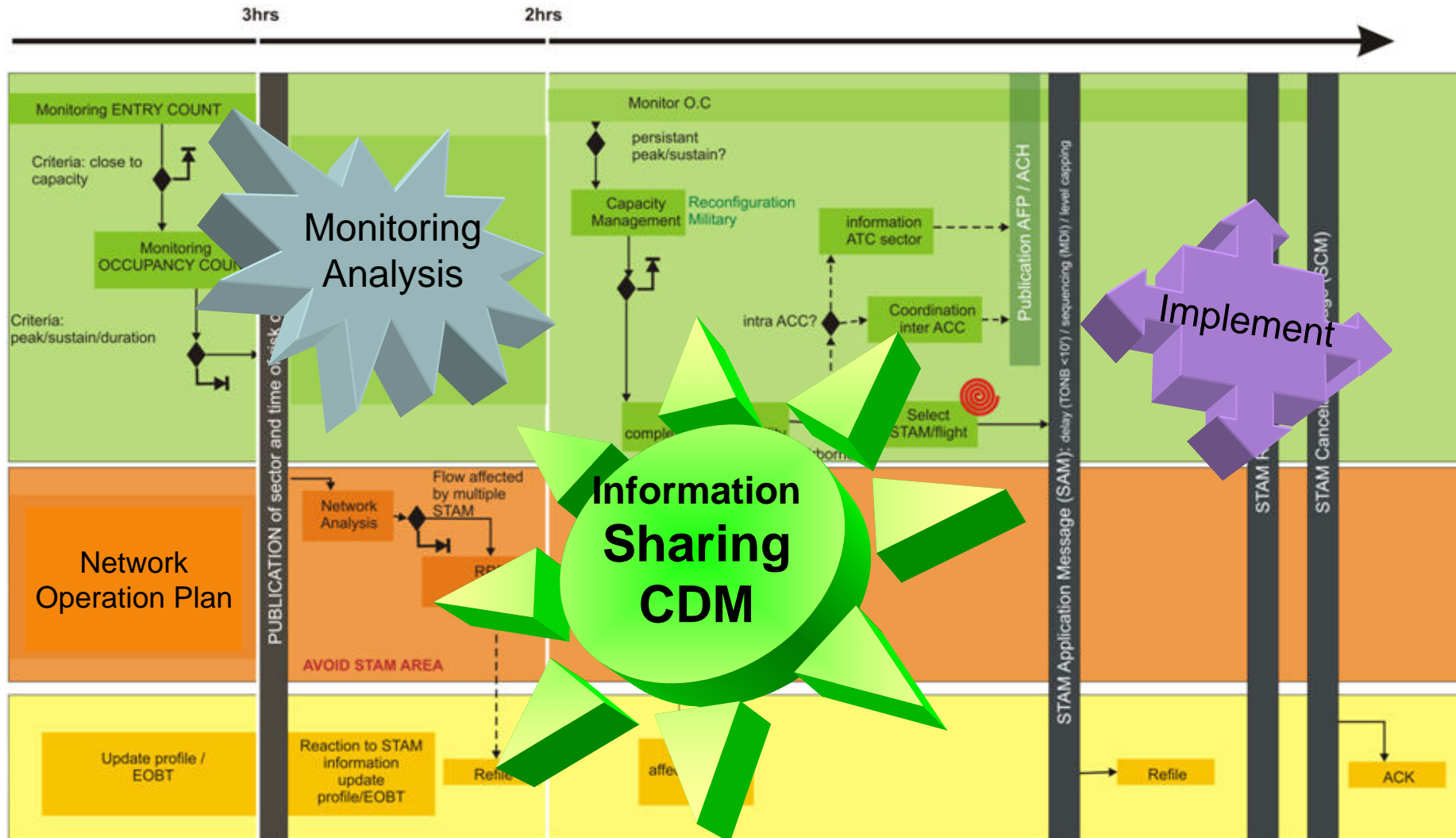
dDCB Trial



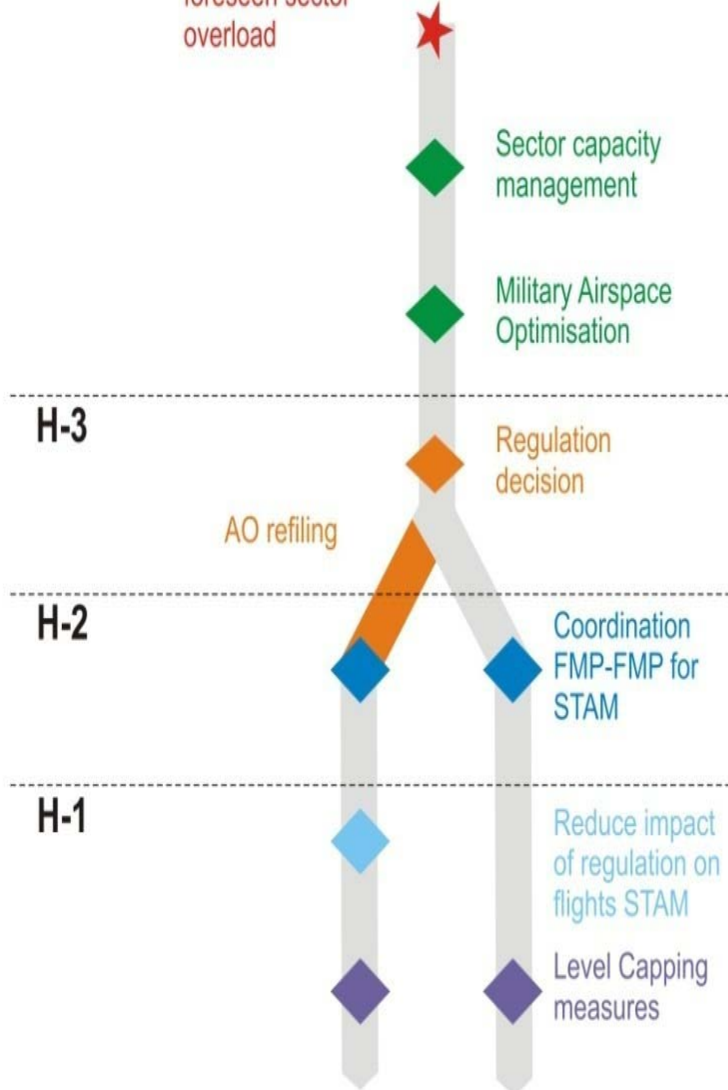
DNM contributions to SESAR work

Time Based Operations

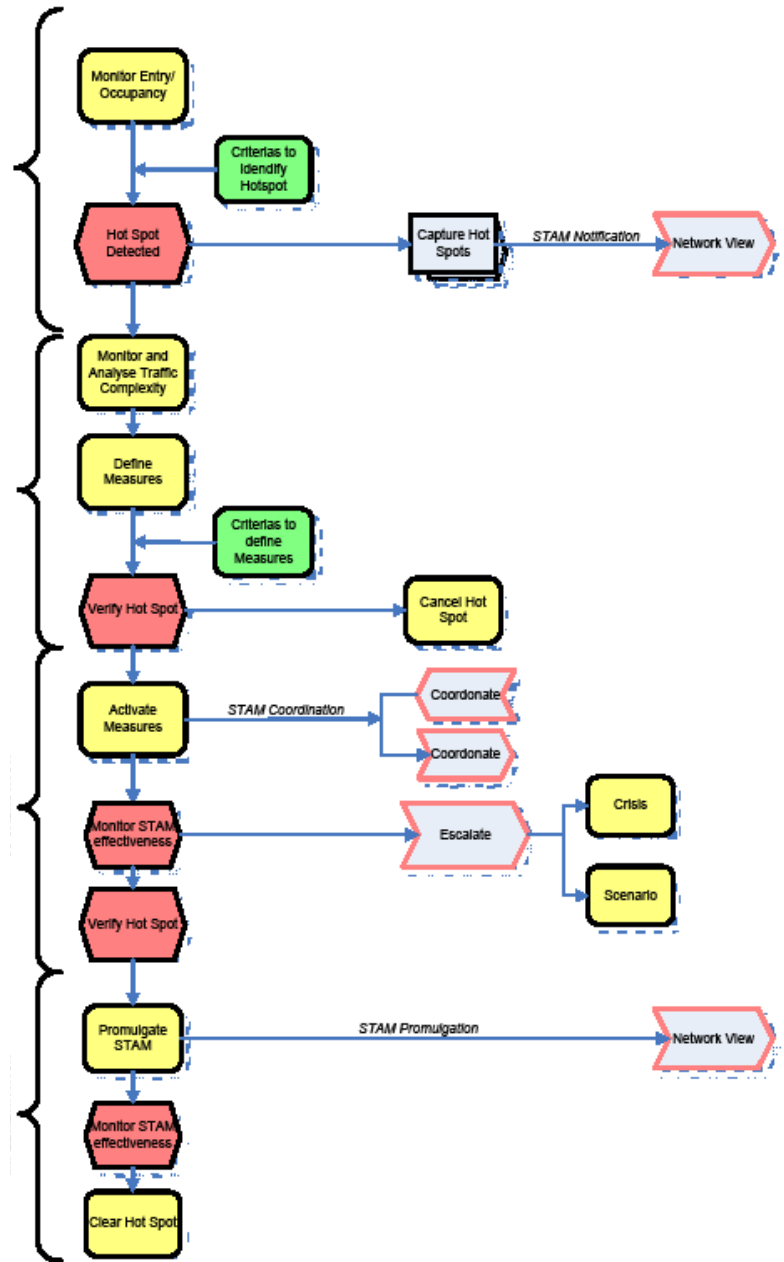
STAM Concept Gap analysis



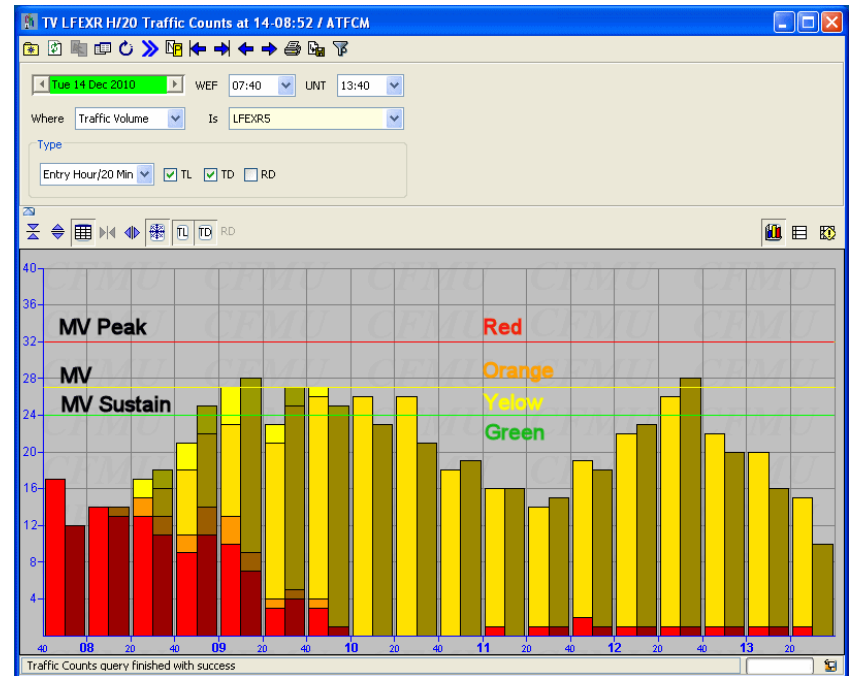
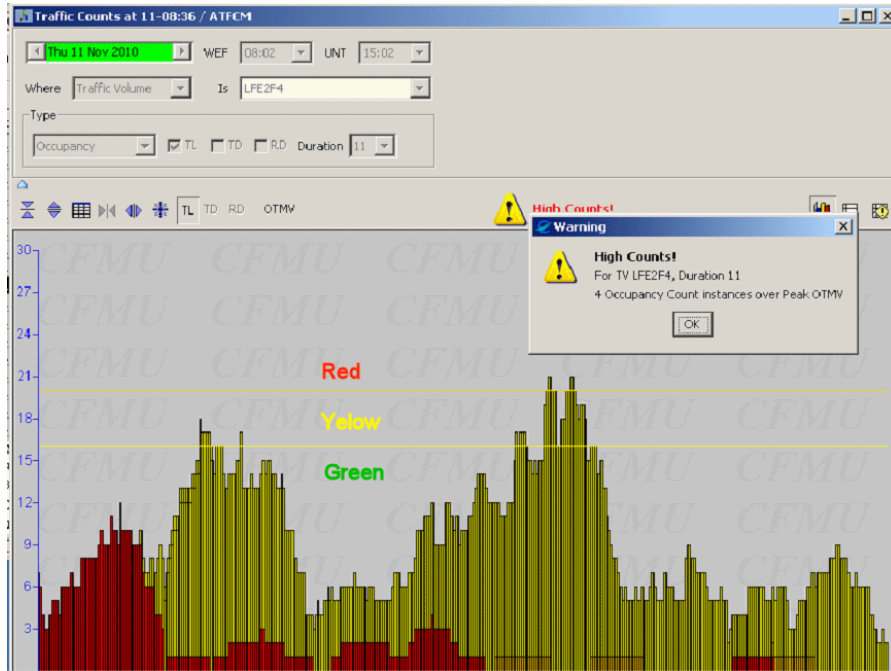
foreseen sector
overload



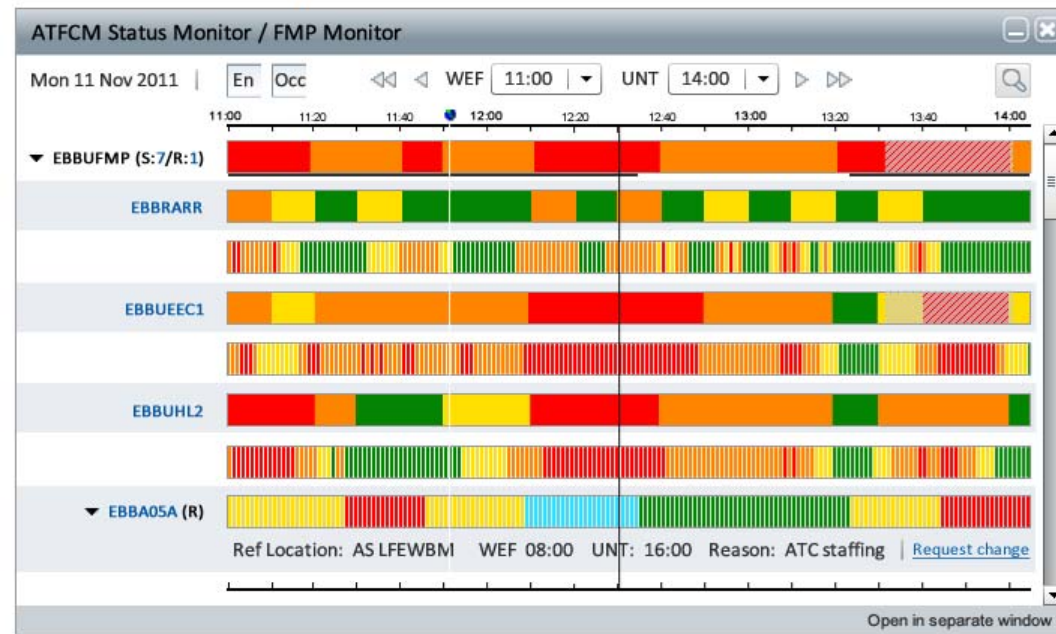
Implement Coordinate Analysis Detection



FMP Monitor



EBBUFMP workspace Select another workspace



My filed requests

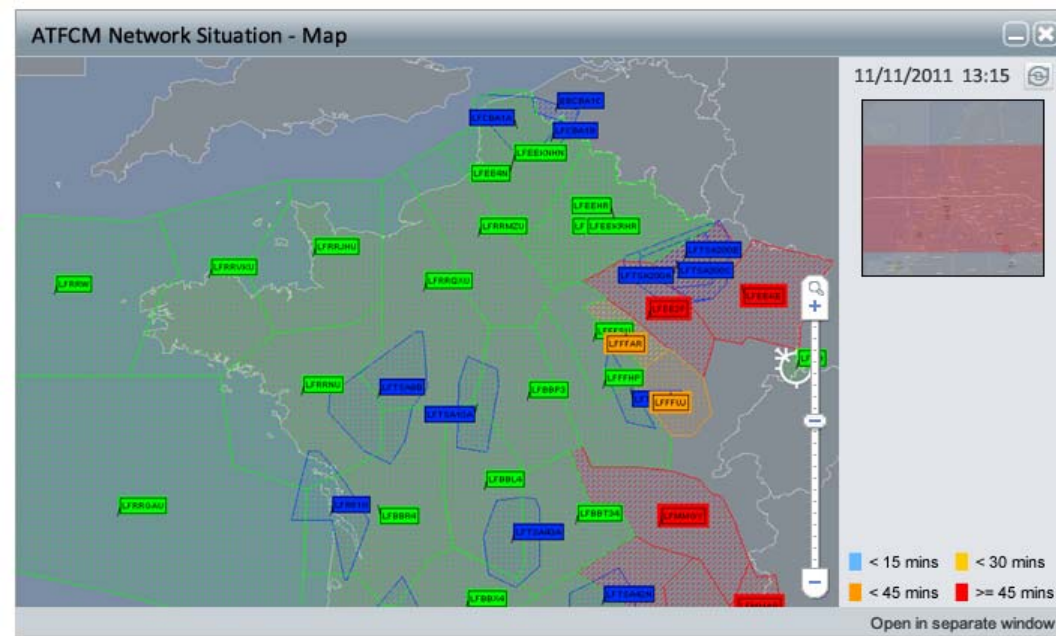
- EBBA05A change**
Sent to: CFMU on 11/11/2011 17:28
- EBBN05 change**
Sent to: CFMU on 11/11/2011 12:28

Open in separate window

Incoming requests

- Request from AO**
Received from: AO on 11/11/2011 12:28
- Request from other FMP**
Received from: EDYYFMP on 11/11/2011 12:28
- Request from CFMU**
Received from: CFMU on 11/11/2011 12:28
- Other request**
Received from: Other on 11/11/2011 12:28

Open in separate window



NOP Event Monitor

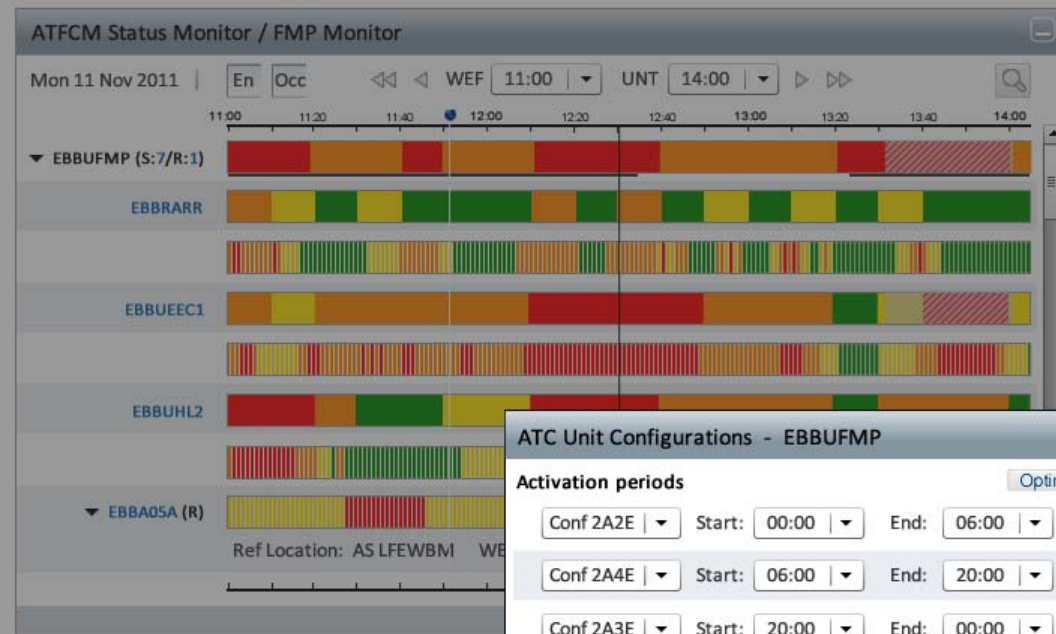
- ANM**
Valid on 11/11/2011
Last Released 11/11/2011 17:28
- AIM**
TAXI TIME EHAM
Released on 11/11/2011 17:28
- FAB daily plan**
Valid 11/11/2011
- AMC report**
Valid on 09/11/2011
- Simulation**
MUAC_FDPS
Published on 11/11/2011 17:28
- AUP/UUP**
EUUP Valid WEF 11/11/2011 17:28
Valid TIL 12/11/2011 17:28
EAUP Valid WEF 11/11/2011 17:28
Valid TIL 12/11/2011 17:28

Open in separate window

Other

Open in separate window

EBBUFMP workspace Select another workspace



ATC Unit Configurations - EBBUFMP

Optimize

Activation periods

Conf 2A2E Start: 00:00 End: 06:00

Conf 2A4E Start: 06:00 End: 20:00

Conf 2A3E Start: 20:00 End: 00:00 +

Cancel Apply

My filed requests

EBBA05A change
Sent to: CFMU on 11/11/2011 17:28

EBBN05 change
Sent to: CFMU on 11/11/2011 12:28

Open in separate window

Incoming requests

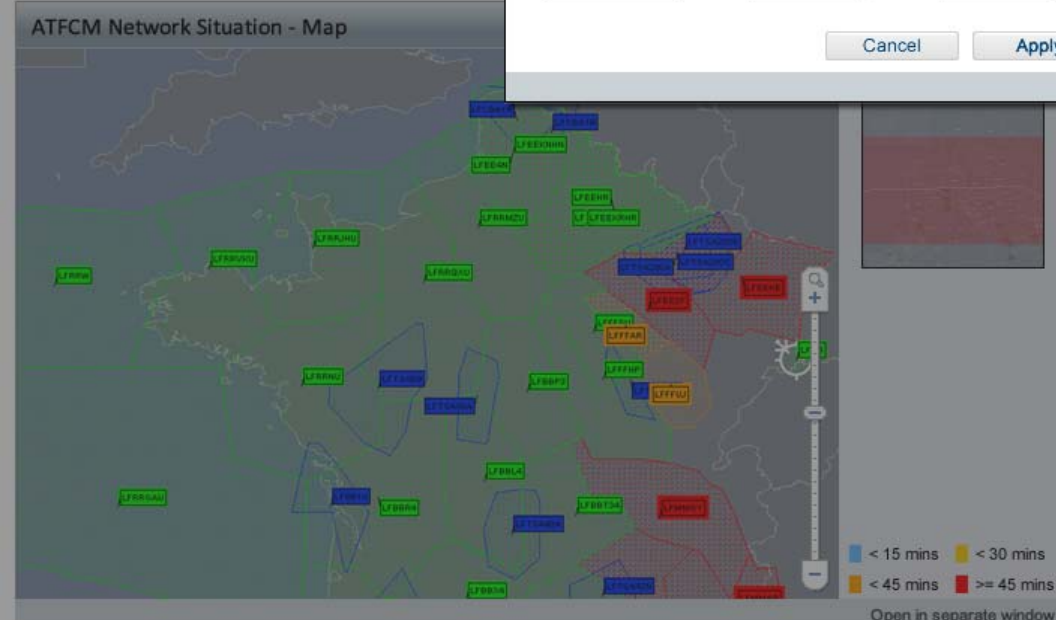
Request from AO
Received from: AO on 11/11/2011 12:28

Request from other FMP
Received from: EDYYFMP on 11/11/2011 12:28

Request from CFMU
Received from: CFMU on 11/11/2011 12:28

Other request
Received from: Other on 11/11/2011 12:28

Open in separate window



OP Event Monitor

Valid on 11/11/2011
Last Released 11/11/2011 17:28

AIM
TAXI TIME EHAM
Released on 11/11/2011 17:28

FAB daily plan
Valid 11/11/2011

AMC report
Valid on 09/11/2011

Simulation
MUAC_FDPS
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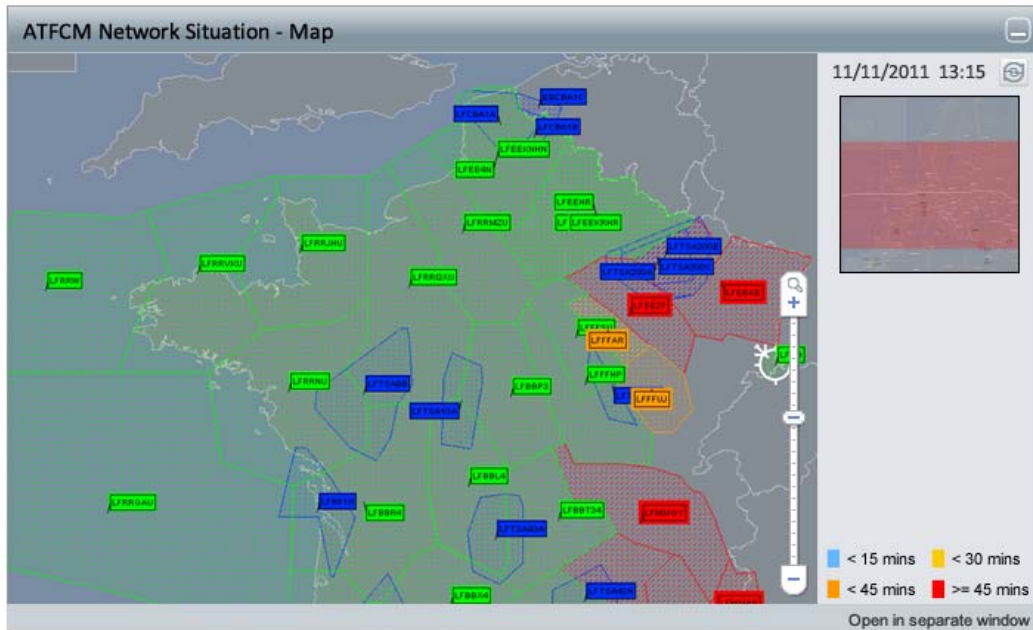
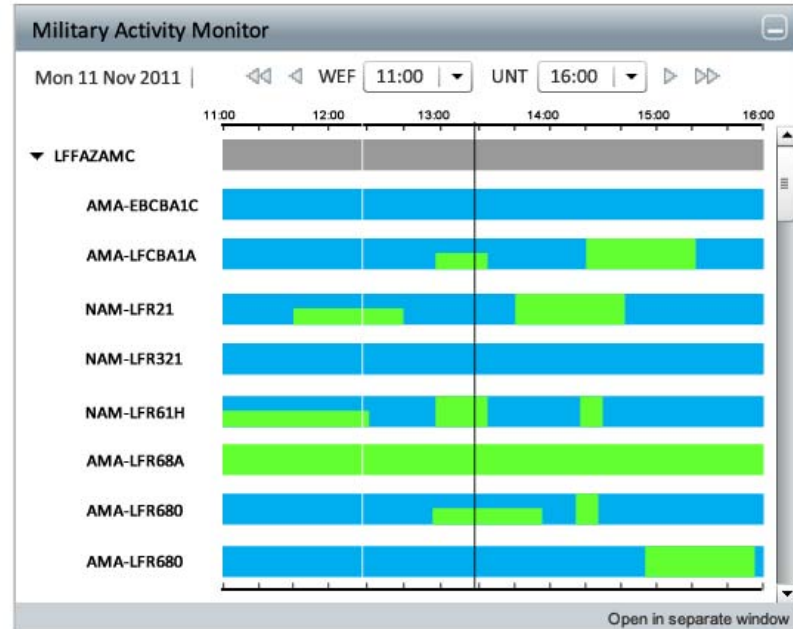
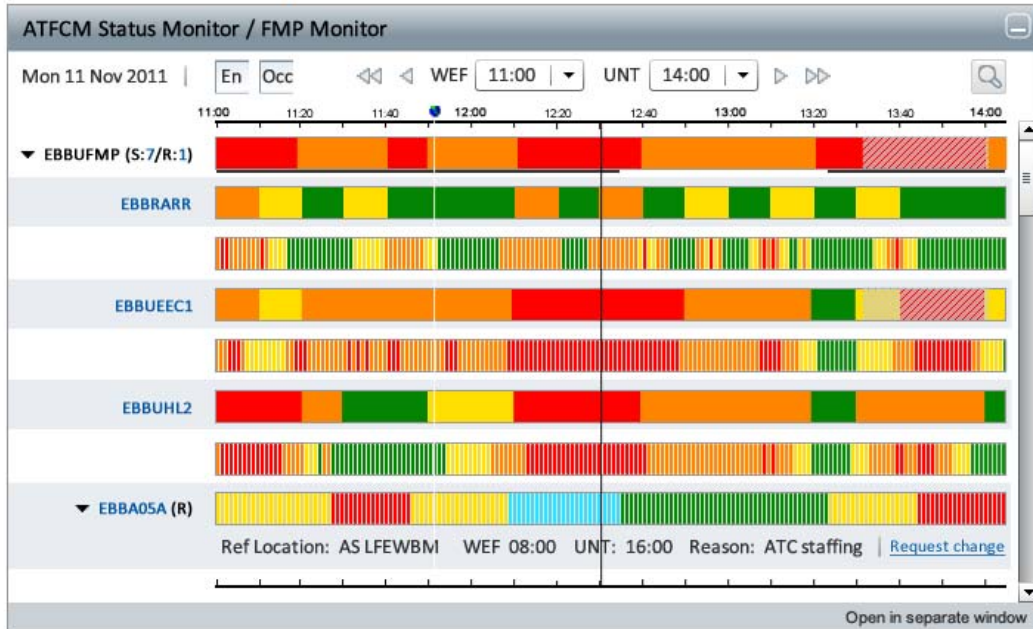
AUP/UUP
EUUP Valid WEF 11/11/2011 17:28
Valid TIL 12/11/2011 17:28
EAUP Valid WEF 11/11/2011 17:28
Valid TIL 12/11/2011 17:28

Open in separate window

Other

Open in separate window

EBBUFMP workspace



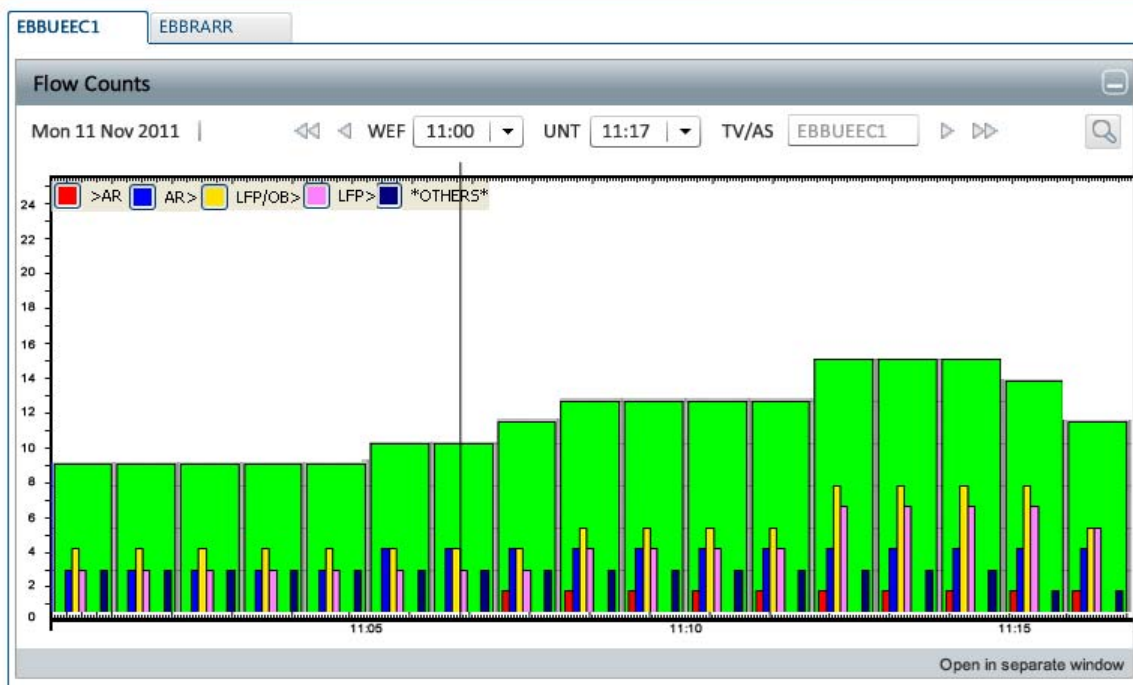
NOP Event Monitor

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EUUP Valid WEF 11/11/2011 17:28
Valid TIL 12/11/2011 17:28
EAUP Valid WEF 11/11/2011 17:28
Valid TIL 12/11/2011 17:28

Open in separate window

Other

Open in separate window



Coordination

- EBBUEEC1FLC - Flight level capping STAM**
Initiated by: EBBUFMP on 11/11/2011 11:28, Last action by: EBBUFMP on 11/11/2011 11:58
- EYDDBUL1RR - Rerouting STAM**
Initiated by: EYDFMP on 11/11/2011 12:28, Last action by: EBBUFMP on 11/11/2011 12:54

Actors

- EYDFMP, supervisor
- EZY, operator (easyJet)
- CFMU, AOLO
- KLM, operator (KLM)
- TCX, operator (Thomas Cook Airlines)

Actions

- Me (EYDFMP) on 11/11/2011 12:32
Candidate Rerouting STAM created for EYDDBUL1
- Me (EBBUFMP) on 11/11/2011 12:34
"STAM will impact almost half of flights in EBBUEEC2, I will create a candidate STAM as well"
- Me (EBBUFMP) on 11/11/2011 12:54
Linked STAM with Candidate FL capping STAM EBBUEEC2FLC.

Search actor | Type new comment here | Send

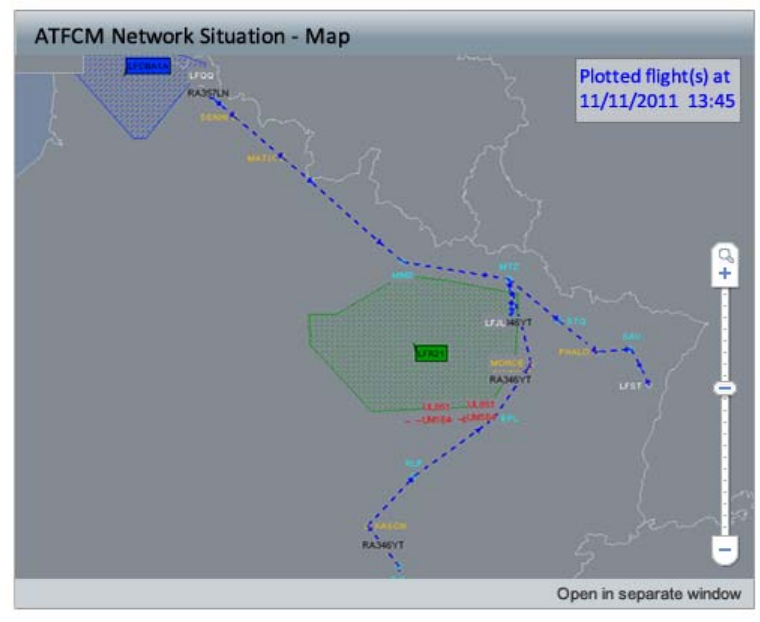
Open in separate window

Flight list

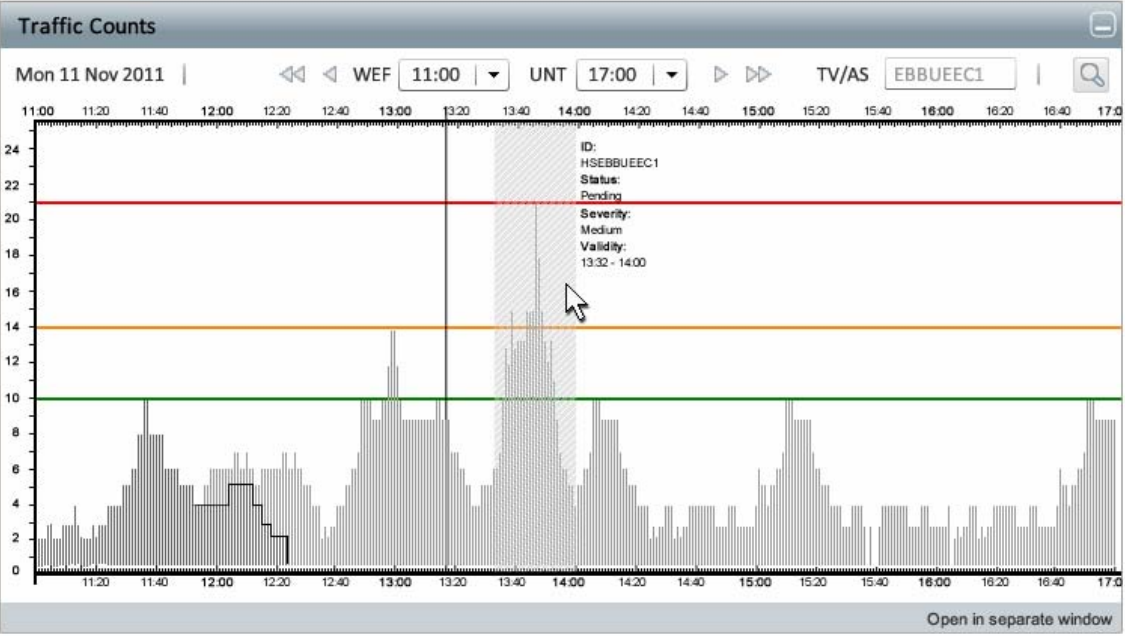
Mon 11 Nov 2011 09:04 | WEF 11:00 UNT 17:00 TV/AS EBBUEEC1 STAM

	TOT/TA	STA	ARCID	ATYP	ADEP	ADES	D T	ARF	IOBT	U	E/CTOT	X F S	ATOT	Del R W d	DCB	REGUL+	O	T I	EFL TO	
<input type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	I	10:01s	37	N	N		EBBUA6	N / 260 /
<input type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	I	10:01s	37	N	N		EBBUA6	N / 260 /
<input type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	I	10:01s	37	N	N		EBBUA6	N / 260 /
<input type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	I	10:01s	37	N	N			N / 260 /
<input checked="" type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	I	10:01s	37	N	N			N / 260 /
<input checked="" type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	I	10:01s	37	N	N			N / 260 /
<input type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	I	10:01s	37	N	N			N / 260 /
<input type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	I	10:01s	37	N	N			N / 260 /
<input type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	I	10:01s	37	N	N			N / 260 /
<input type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	I	10:01s	37	N	N			N / 60 /

Open in separate window



EBBUEEC1 EBBRARR



Coordination

- EBBUEEC1FLC - Flight level capping STAM**
Initiated by: EBBUFMP on 11/11/2011 11:28, Last action by: EBBUFMP on 11/11/2011 11:58
- EYYDBUL1RR - Rerouting STAM**
Initiated by: EYYDFMP on 11/11/2011 12:28, Last action by: EBBUFMP on 11/11/2011 12:54

Actors

- Name Surname (EYYDFMP, supervisor)
- Name Surname (EZY, operator)
- Name Surname (CFMU, AOLO)
- Name Surname (KLM, operator)
- Name Surname (TCX, operator)

Actions

- Name Surname (EYYDFMP) on 11/11/2011 12:32
Candidate Rerouting STAM created for EYYDBUL1
- Me (EBBUFMP) on 11/11/2011 12:34
"STAM will impact almost half of flights in EBBUEEC2, I will create a candidate STAM as well"
- Me (EBBUFMP) on 11/11/2011 12:54
Linked STAM with Candidate FL capping STAM EBBUEEC2FLC.

Search actor | Type new comment here | Send

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Flight list

Mon 11 Nov 2011 09:04 | WEF 11:00 UNT 17:00 TV/AS EBBUEEC1 STAM

	TOT/TA	STA	ARCID	ATYP	ADEP	ADES	D T	ARF	IOBT	U	E/CTOT	X F S	ATOT	Del R W dDCB	REGUL+	O	TI EFL TO	
<input type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	10:01s	37	N	N	EBBUA6	N / 260 /
<input type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	10:01s	37	N	N	EBBUA6	N / 260 /
<input type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	10:01s	37	N	N	EBBUA6	N / 260 /
<input type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	10:01s	37	N	N	N	/ 260 /
<input checked="" type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	10:01s	37	N	N	N	/ 260 /
<input checked="" type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	10:01s	37	N	N	N	/ 260 /
<input type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	10:01s	37	N	N	N	/ 260 /
<input type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	10:01s	37	N	N	N	/ 260 /
<input type="checkbox"/>	10:01C	LU	DLH7TT	RJ85	EBBR	EDDM	A	330	09:30		09:57E	N	10:01s	37	N	N	N	/ 60 /

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ACTORS and ROLES

- Monitors his Area of Responsibility
- Has the expertise to assess sector load
- Has the expertise to characterise the issue (based on occupancy/complexity/integrity)
- Has the expertise to select relevant STAM measures

Network Operation Manager

- Monitors the overall network balance & stability
- Is an escalation level for FMP
- Provides FMP with network opportunities
- May implement network solution to coordinate multiple STAM application
- Is consolidating data in the NOP
- Support to Information Sharing
- Is the relay between STAM actors

Airline Operators

- Is informed in advance of STAM application and throughout the process, to be aware of the situation and change plans at their discretion
- May provide enhance data regarding flight status (e.g. APR)
- Is informed about the flights subject to STAM, possibly with their associated « ATM cost »
- May prioritise his flights when subject to STAM
- Is fully involved in the post-ops and strategic phases

A PROJECT TEAM

dDCB Support to ODSG

ODSG Support to dDCB

1. A Project Team
2. A Methodology
 - OSED
 - Validation Process
3. Transparent Effort Accounting

dDCB PROJECT TEAM

- ✳ **DFS**
- ✳ **NATS**
- ✳ **AENA**
- ✳ **DSNA**
- ✳ **DCMAC**
- ✳ **Eurocontrol**
- ✚ **MUAC**
- ✚ **CFMU**
- ✚ **EEC/NET**

Strong Institutional support



STAM dDCB Work Shop

Work Shop with FMPs and Airspace Users
1st March 2011
Pollux Conference room

Provisional Agenda

1. SESAR dDCB step 1: dDCB initial requirements
2. Discussion on the operational process and requirements.
3. Road map for the implementation
4. November 2011 dDCB trial presentation and discussion