



## Data update on the Public Portal by mid-2016

### Document information

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### Task contributors

*The data update task has been conducted in collaboration with Work Package C and Work Package B and with the contribution of the R&D and co-ordinating projects in the SESAR1 programme.*

### **Abstract**

The data update on the Public Portal by mid-2016 (Internally referred to as the Dataset 16) has been done as a deliverable of the SESAR1 programme. The content is contained in a database accessible through the European ATM Master Plan Portal. It was an update to the reference data released together with the European ATM Master Plan Edition 2015, which is also accessible in the public portal.

Following the data change management process an assessment of the impact on the Master Plan Level 1 was performed. This concluded that there are not any significant updates in relation to the Master Plan Level 1.

This was the last dataset update for the SESAR1 programme. The next update should be done in SESAR2020.

## Authoring & Approval

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## Document History

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## Executive summary

The data update on the Public Portal by mid-2016 (Internally referred to as the Dataset 16) has been done as a deliverable of the SESAR1 programme.

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## 1 Introduction

### 1.1 Purpose of the document

This document represents the accompanying explanation for the latest data update by mid-2016 on the public European ATM Master Plan portal.

The data version (internally referred to as Dataset 16) is the result of the joint Data Change Management Process which was jointly coordinated by the SESAR projects in the Work Package C and B. It involved all co-ordinating and R&D projects. The change was done with reference to the released latest Edition 2015 of the European ATM Master Plan.

The process also involved the SESAR Joint Undertaking, e.g. for the review of PCP-related change requests.

Change requests in the data change management process were raised for all non-automatic data changes in the dataset. This is done for full traceability and transparency of all changes.

Following the data change management an assessment of the impact on the Master Plan Level 1 was performed in order to identify significant changes if any.

### 1.2 Intended readership

The entire SESAR Programme is using the regularly released Datasets as a reference point for their work. The intended readership comprises also the users of the public European ATM Master Plan portal, wanting to know more about the latest data update on the European ATM Master Plan.

### 1.3 Inputs from other projects

The content input is delivered by primary projects via the federating projects into the process and reviewed by the transversal projects and where applicable by the SJU Experts. The relevant projects are reflected in 1.1 above.

### 1.4 Acronyms and Terminology

Term	Definition
<b>ATM</b>	Air Traffic Management
<b>DS16</b>	Dataset 16, released data on the Master Plan portal by mid 2016
<b>Master Plan Level</b>	The European ATM Master Plan has three levels: Level 1 – the Executive Level, Level 2: the Planning Level, Level 3: the Implementation Level
<b>SESAR</b>	Single European Sky ATM Research Programme

Term	Definition
<b>SJU</b>	SESAR Joint Undertaking
<b>SESAR Programme</b>	The programme which defines the Research and Development activities and Projects for the SJU.
<b>TCs</b>	Technology Changes, as reflected in the European ATM Master Plan
<b>WPC</b>	Work Package C – European ATM Master Plan

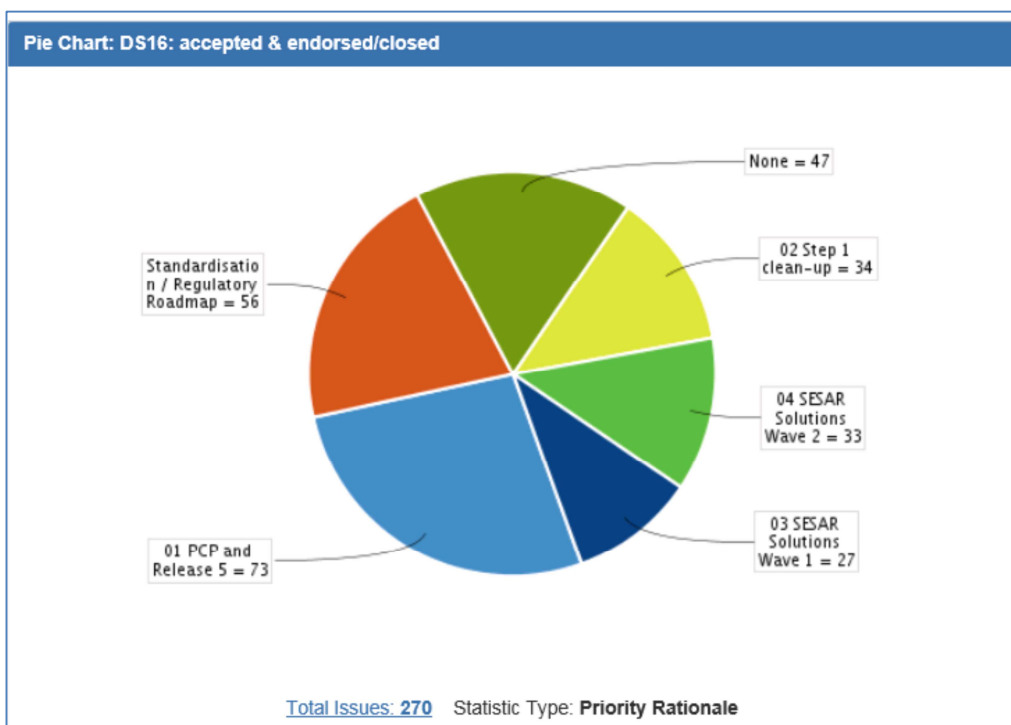
## 2 Latest data changes by mid-2016 (Dataset 16)

### 2.1 Type of changes included in Dataset 16

The changes included in the Dataset 16 (DS16) update have been recorded in a comprehensive way in a data change management tool. Following a process established more than five years ago that has been regularly reviewed and improved since, all changes to non-automatic data elements are systematically reflected in the tool in order to guarantee traceability and transparency. The data elements include the Integrated Roadmap, the Standardisation and Regulatory needs/roadmap data and the Deployment Packages/Deployment Scenarios planning data.

### 2.2 Change overview for Dataset 16

The change management tool, which is administrated by WPC and hosted by EUROCONTROL, is providing the online overview of the changes. The Change Dashboard shows the overview for DS16:



**Two Dimensional Filter Statistics: DS16**

Priority Rationale	Resolution				
	Accepted	Rejected	Duplicate	Withdrawn	T:
01 PCP and Release 5	73	1	14	7	95
02 Step 1 clean-up	34	1	0	2	37
03 SESAR Solutions Wave 1	27	0	1	1	29
04 SESAR Solutions Wave 2	33	1	1	1	36
Standardisation / Regulatory Roadmap	56	0	5	2	63
None	47	0	15	1	63
<b>Total Unique Issues:</b>	<b>270</b>	<b>3</b>	<b>36</b>	<b>14</b>	<b>323</b>

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## 3 Level 1 impact assessment for Dataset 16

Overall it is evident that there are some changes to the data compared to the Dataset 15 (DS15) baseline used for the European ATM Master Plan Edition 2015, as the R&D programme continued, more validation and verification exercises have taken place and a release review for Release 5 was prepared.

An impact assessment has been performed on the proposed changes in order to analyse their impact on the Level 1 and to identify – if any – the significant changes.

The structure for the analysis is based on the Level 1 / Executive views on the European ATM Master Plan Portal. It has to be noted that the reference dataset on the Working Portal, where the Dataset 15 and 16 are visible, will be the Dataset 16. For earlier datasets the normal User will be switched automatically to the reference dataset when accessing any Level 1 view.

From the changes there was no impact at all on the following Level 1 views:

- Performance Ambition
- SESAR Key Features
- Essential Operational Changes
- CNS Roadmaps – Communication Roadmap
- ICAO Blocks

### 3.1 CNS Roadmaps

There was no impact on the Communication Roadmap.

#### 3.1.1 Navigation Roadmap

One minor adjustment: **DME Ground Infrastructure optimisation**: now the enabler CTE-N08 V5 end date is one year earlier, so the dot appears one year earlier.

#### 3.1.2 Surveillance Roadmap

**Composite WAM/ADS-B** is now renamed **Composite Surveillance**.

The underlying Enabler is now much better defined, as it was lacking a description, linkages, etc. The IOC date had been set to 2018. After the change the V3-end date is 2021 and there is not yet an IOC date set. Therefore the dot in 2018 has disappeared CR-2710 refers.

### 3.2 Deployment Scenarios

#### 3.2.1 PCP Essential Operational Changes

No change on the Level 1 view.

However, Dataset 16 includes some change requests that align the Master Plan Level 2 better with the Level 1 than before.



## 3.2.2 New Essential Operational Changes

No change on the Level 1 view.

A review of the underlying Deployment Packages/Deployment Scenarios by C.02 Task005 was not possible after the closure of the Dataset 16. This review would be needed by the successor of Task005, also taking into account the outcome of Release 5, which will be finalised with its second batch towards the end of 2016. The outcome of the first batch of the Release 5 System Engineering Review Number 3 showed some adjustments to the underlying Operational Improvement Steps and Enablers due to results of Validation Exercises.

## 3.3 Stakeholder Roadmaps

Certain Technology Changes (TCs) are now initially delivered earlier which is seen as an acceptable change. Changes that induce delays of more than a year concern the following PCP Technology Changes for Stakeholders:

### **ANSPs civil:**

AMAN/DMAN: goes now beyond 2020, until 2028 because of a new IOC date for APP ATC 158. However, "APP ATC 158 — Enhanced arrival management to cover ground holding at the departure aerodrome" is not marked as PCP. Moreover, APP ATC 158 will be ready (V5-end date) by 2020, its first deployment, however, in the planning will not be needed before 2027 (IOC date).

Complexity Management tools: has moved from 2015 to 2019 because of a new IOC date for ER APP ATC 93. The change in date is not linked to a V5-end date delay but to the fact that the IOC is needed only later for the linked Operational Improvement Step CM-0103-A. With a given planned availability for deployment, the resulting IOC will take into account the earliest date that the technology is needed for the operational improvement. Thus a deployment date for technology may be postponed in order not to have unused technology implemented and to spend money not earlier than needed. In conclusion there is not any change in the date of availability of the technology, but just a shift in the planning of the first deployment need. This case of a shifted IOC date has arisen more often and will be mentioned below.

### **Airspace Users, including FOC and WOC:**

Enhanced FOC/WOC systems: For this Technology Change, there is not any overall delay, but it appears now in one year in 2019 (IOC of AOC ATM 13 and AOC ATM 15) because the old enablers within this TC AOC-ATM-10 and NIMS-21b were linked to AOM-0502, which has been replaced by AOM-0505, and AOC-ATM-20 was linked to AUO-0203-A which has been recoded to AUO-0203. Thus the dates for the Technology Changes were recalculated in line with the new linked Operational Changes.

### **Network Manager:**

For the PCP part only date improvements, i.e. earlier availability dates were recorded.

Demand and Capacity Balancing: in the non-PCP part goes now beyond 2022, because of new IOC date for NIMS-48, which is needed only later for its Operational Improvements. So again there is no change in the availability date of the technology but a shift of the planned first deployment.

## 3.4 Standardisation and Regulatory Needs

Overall, some of the linkages have disappeared, partially because of a thorough review with resulting deletion of Regulatory Enablers. Partially it is because of the restructuring of Free Route OI Steps, which has not changed the link to STD-033, but the composition of the technology change. To clarify the impact on the display a review of the mapping would be required. Timewise this was not possible to be performed in SESAR1 by the responsible project.

#### Demand and capacity balancing:

- **User-driven prioritisation process (UDPP):** the regulatory blue dot disappears because REG-HNA-50 and REG-HNA-51 have been removed from DS16 based on the UDPP early Regulatory Impact Assessment.

#### Enhanced FOC/WOC systems:

- **Airspace management and advanced flexible use of airspace:** The regulatory green dot disappears because REG-HNA-48 has been removed from DS16 due to the military not being subject to European regulations, but to national regulation only.
- **Initial trajectory information sharing (i4D):** The standardisation green dot disappears as STD-033 has not been reallocated in line with the introduction to 3.4 above.
- **Mission Trajectory:** The regulatory blue dot disappears because REG-HNA-47 has been removed from DS16 due to the military not being subject to European regulations, but to national regulation only.
- **User-driven prioritisation process (UDPP):** The regulatory blue dot disappears because REG-HNA-49 has been removed from DS16 based on the UDPP early Regulatory Impact Assessment.

#### Flight object implementation and enhanced FDP:

- **Initial trajectory information sharing (i4D):** The standardisation green dot disappears as STD-033 and ATC-STD-01 have not been reallocated in line with the introduction to 3.4 above.
- **Mission trajectory:** The regulatory blue dot disappears because REG-HNA-38 has been removed from DS16 due to the military not being subject to European regulations, but to national regulation only.

#### Flight planning and demand data:

- **Initial trajectory information sharing (i4D):** The standardisation green dot disappears as STD-033 has not been reallocated in line with the introduction to 3.4 above.

## 3.5 ATM Technology Changes

The modifications for the ATM Technology Changes are data adjustments. Again for parts this is linked to a restructuring (e.g. of Free Route OI Steps), which would require a review of the ATM Technology Changes Linkages.

#### ANSPs

- **Aeronautical/meteorological information data sharing: Information sharing and business trajectory:** The operational improvement AUO-0303-A (linked to METEO-06b) was deleted in DS16 together with AUO-0205-A being adjusted for it in the review of the Trajectory Management Framework review. However, METEO-06b has not been allocated to AUO-0205-A and thus the link disappeared.
- **Flight object implementation: Automated support for traffic complexity assessment.** CM-0201-A has been unlinked from AF4.4 and thus the dot disappeared. The operational improvement has been linked to AF5.6 instead.

#### Airports

- **Surface management: DMAN synchronised with pre-departure sequencing:** From the Operational Improvement Step TS-0202, AERODROME-ATC-05 has been removed as it is not included in the PCP scope. With this link cut, the dot disappeared.

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## AUs

- **Enhanced FOC/WOC systems: Free Route** AOM-0502 operational improvement has been replaced by AOM-0505, with AOC-ATM-10 removed. While NIMS-21b is connected to the new AOM-0505, the mapping exercise for the ATM Technology Change has not been done, yet. **Initial trajectory information sharing (i4D):** While AUO-0203-A has been recoded to AUO-0203 and the enabler AOC-ATM-20 has been kept, the mapping exercise for the ATM Technology Change has not been done, yet.

## Network

- **Aeronautical/met information data sharing: information sharing and business trajectory:** The operational improvement AUO-0303-A (linked to METEO-06b) was deleted in DS16 together with AUO-0205-A being adjusted for it in the review of the Trajectory Management Framework review. However, METEO-06b has not been allocated to AUO-0205-A and thus the link disappeared.
- **Flight Object implementation: Initial trajectory information sharing (i4D):** While AUO-0203-A has been recoded to AUO-0203 and the enabler NIMS-40 has been kept, the mapping exercise for the ATM Technology Change has not been done, yet.

## 4 Conclusions

The follow-up with the SJU on the impact analysis concluded that while there are data changes that are visible on the Public Portal, these are demonstrating the progress of the SESAR1 programme in terms of R&D and validation activities.

There are not any significant changes in the update from Dataset 15 to Dataset 16 with regard to the Master Plan Level 1.

The next update of the dataset should occur in the SESAR2020 programme in 2017.

**-END OF DOCUMENT-**

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