



EAD 2017 Annual Plan

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1 Introduction

In accordance with the EC Regulation 1035/2011, Annex 1 part 2.2.2 & part 9, EAD is tasked with the production of the EAD Annual Plan on its activities. The Annual plan is a summary of the information agreed by the EUROCONTROL Agency and the EAD Service Steering Group.

The EADAP proposed issue will be submitted to SSG for acknowledgement. Comments received from the SSG will be evaluated and, when accepted, incorporated in the EADAP draft issue. The EADAP incorporating any last changes made by the SSG will become the EADAP final version.

The EADAP final version will be published by EUROCONTROL on its website.

2 Scope

This Business Plan describes the activities carried out in 2017 by EAD as a system, which entails:

- EUROCONTROL/NS/EAIM as the system and service manager;
- The operations carried out by the data operations and training services provider;
- The operations carried out by the IT service centre and application maintenance provider.

These activities are linked to the following business objectives described in the Agency Work Programme:

- Airspace / AIS Information Management Service Provision;
- Airspace / AIS Information Management Development;
- European ATM Information Management Service.

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3 EAD Business Objectives

3.1 Airspace/AIS Information Management Service Provision (ADS)

Actions	Deliverables (Milestones/Targets)	Completion by
<u>Airspace/AIS Data management</u> <ul style="list-style-type: none"> - Development of operational guidance material related to aeronautical data quality and consistency improvements; - Monitoring EU regulations and ICAO SARPS changes related to AIS/AIM relevant topics having operational and/or technical impact on EAD; 	<p>EAD will further elaborate on Data Harmonisation Objectives and ensure consistency of operational requirements.</p> <p>EAD will contribute to the definition of AIM related technical specifications for implementation in EAD.</p>	31-Dec-17
<u>Airspace/AIS Information Operations</u> <ul style="list-style-type: none"> - Delivery of EAD operation services encompassing the provision of static data, dynamic data, and aeronautical Publications (outsourced); - Maintenance of world-wide static data and world-wide NOTAM processing (outsourced); - Provision of data quality/consistency reviews to data providers (outsourced); - Support data providers related to data completeness, identification of missing data and data responsibility; 	<p>EAD operations services are delivered according to the service level specifications agreed with the Data Operations Service Provider.</p> <p>This service is monitored through</p> <ul style="list-style-type: none"> - monthly service performance reports, - quarterly data consistency reports, - yearly data completeness report; - Release content document informing clients of the functionalities implemented with a new release. 	31-Dec-17

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<ul style="list-style-type: none"> - Migration of data providers (civil and military) and data users including negotiation of client agreements and technical/operational support/assistance; 	<p>Initiate the full migration of partially migrated ECAC States Data Providers. This will consist of:</p> <ul style="list-style-type: none"> - The definition and the signature of a Migration and Transition Plan; - The establishment of an agreed planning; - The management and coordination of the transition through regular project follow up meetings with all partners involved. <p>Further expand the data users community through active promotion campaigns.</p> <p>Evaluate the feasibility of cooperating with major data houses for the exchange of AIS information. As an initial step, this would result in the definition of a data exchange agreements describing the conditions for the provision of such services.</p>	
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<p><u>Airspace/AIS Information System Support</u></p> <ul style="list-style-type: none"> • Delivery of EAD IT services in order to support H24 EAD data operations (outsourced); • Development and maintenance of the EAD application software (outsourced); • Management of the evolution of the EAD system by providing change proposals (CP) specifications for each subsystem. • Monitoring of EAD system development including review, assessment and verification activities; 	<p>EAD IT services are delivered according to service level specifications agreed with the IT provider. EAD application maintenance services are delivered in accordance with the application maintenance contract. These services are monitored through</p> <ul style="list-style-type: none"> - Monthly performance reports; - Release notes and side letter per subsystem, describing which changes or bug fixes have been included in a patchset or release and which have not; - Assessment reports issued after the finalisation of each assessment activity.; <p>In 2017, the following patch set / release are planned for implementation:</p> <ul style="list-style-type: none"> - R10 Patch 3, improving the system performance - R11, implementing further functionalities in order to support ADQ compliance and address client requirements. 	31-Dec-17
<p><u>EASA Certification for EAD Service/Functions</u></p> <p>In line with the expected change of the NM IR (Annex EAD Functions), the EAD Service/Function Certification by EASA is required. This would result in a much shorter time frame for the EAD Release Management Process (10 to 12 months instead of 18 months) due to the drastically reduced delivery times of the Safety Case and the Declaration of Conformity (DoC) as well as the Declaration for Suitability of Use (DSU) to the NSAs.</p>	<p>Since 9 December 2016, EUROCONTROL has been certified as an approved Air Navigation Service Provider Organisation for the provision of Aeronautical Information Services under the conditions and limitations listed in the annex to the approval certificate EASA.AOA.PAN.009. As a consequence, the following activities will be carried out to maintain this certification :</p> <ul style="list-style-type: none"> - Amend EAD processes and documents to comply with EASA requirements (and relevant EC/EU regulations) wherever necessary; - Preparation of the first EASA post certification audits; - Address EASA findings and observations resulting from this audit. - 	31-Dec-17

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3.2 Airspace / AIS Information Management Development (ADD)

Actions	Deliverables (Milestones/Targets)	Completion by
<u>EAD Data Completeness and Extensions</u> Implementation of a Static Data Completeness tool (SDC) in order for data providers to monitor the completion of their static dataset and increase the airspace/AIS data availability for operational use.	EAD will further enhance the SDC tool for data providers and associated reporting facility	31-Dec-17
<u>AIM System Service improvement and Development</u> Development of guidance material and AIXM 5.1 extension for Military AIS that will be used in EAD to line up the national Military AIP, and accommodate the missing military data elements. Analysis and deployment of additional functionalities in order to meet data provider/user requirements collected through client surveys and user requirement workshops.	EAD will actively contribute to the definition of user requirements to accommodate the provision of missing Military data and the generation of Military AIP. This will ultimately result in the extension of EAD functionalities compliant with user expectations.	31-Dec-17
<u>Extension of EAD PAMS</u> Extension of EAD aeronautical information publications library (PAMS) to cover the ECAC+ geographical area.	As from 1st January EAD will provide PAMS services (Initial Load and Maintenance) to - the following ECAC+ States: Afghanistan, Algeria, Belarus, Egypt, Iran, Israel, Lebanon, Libya, Morocco, Russian Federation, Saudi Arabia, Syria, Tunisia, Uzbekistan ASECNA States, and - Cape Verde - Member States of ASECNA	31-Dec-17

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3.3 European ATM Information Management Service (EAIMS)

Actions	Deliverables (Milestones/Targets)	Completion by
ADQ compliance and Conversion of AIXM 4.5 to 5.1	<p>The objective is to ensure that the EAD system is recognised as ADQ compliant.</p> <p>In order to reach this objective EAD will</p> <ul style="list-style-type: none"> - implement a new interface for B2C Client for SDD through EAD release 11 - Develop and implement a procedure for the transition from SDO to SDD for B2B and B2C clients - Develop additional facilities to further support data provision via SDD in AIXM 5.1 format, and to aid the EAD Data Operations Provider (DOP) in supporting AIXM 5.1 during daily operations. 	31-Dec-17
Integrated Briefing Upgrade (MET + Graphical Tool)	<p>Evaluation and definition of the specification and contract initiation.</p> <p>Implementation of Amendment 39-B to ICAO Annex 15 - SNOWTAM format change, with milestone – evaluation and definition of requirements and specification</p>	31-Dec-17
Compliance with the EUROCONTROL eAIP specification	Implement the requirements for eAIP in accordance with the updated eAIP specification.	31-Dec-17
New service definition phase	Contribute expertise for CS5	31-Dec-17
Service development	EAD will manage the system maintenance in order to keep the system service performance in line with the service specifications and legal obligations.	31-Dec-17

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4 Cost-base for 2017

The table below details the 2017 cost base, by business objective:

Business Objectives	FTE	Staff costs	External costs	Operating costs	Depreciation costs	Indirect costs	Total	Sales of services UPP	Cost-Base
Airspace/AIS Information Management Service Provision (ADS)	7,8	1.623	850	12.768	8	3.854	19.103	480	18.623
Airspace / AIS Information Management Development (ADD)	2	416	1.220	155	0	453	2.244	0	2.244
Airspace / AIS Information Management Development (ADD)	2,8	544	2.700	60	224	868	4.396	0	4.396
Total	12,6	2.583	4.770	12.983	232	5.175	21.347	480	20.867

5 Human resources

The functional allocation of the Full Time Equivalent resources of the EAIM Unit in 2017 is shown in the table below. The resources are broken down by business area and, for a business area; the distinction is made between EUROCONTROL (ECTL) and External staff (EXT).

The difference between the FTE shown in this chapter and those shown in chapter 4 above correspond to staff assigned functionally to the EAIM unit but working for other work programmes

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(such as Centralised Services). From a financial perspective they will appear as costs under the respective work programmes.

Resources of DOP and ITP are not included in this annual plan since the service level specifications agreed between EUROCONTROL and these suppliers describe only the service deliverables regardless of the resources required. The management of these resources is therefore the exclusive responsibility of these suppliers.

Business Area	FTE	2017
Unit supervision & assistance and Quality Management	ECTL	3,45
	EXT	0,00
System Management	ECTL	2,50
	EXT	0,50
Operations Management	ECTL	2,10
	EXT	2,00
Client Management	ECTL	3,00
	EXT	0,15
Maintenance & Evolution Management	ECTL	1,75
	EXT	0,50
Data Management	ECTL	1,50
	EXT	3,85
Total	ECTL	14,30
	EXT	7,00
Total staff		21,30

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6 Performance Indicators

The performance indicators mentioned in this chapter describe the planned performance of EAD, for the provision of its services to customers (principally Data Providers and Data Users).

These performance indicators are derived from the detailed performance indicators annexed to the Service Level Specifications signed between EUROCONTROL and respectively DOP, ITP and application maintenance.

6.1 Service availability

The minimum availability and maximum downtime of the services provided by EAD, as agreed with the industry partners for 2017 and acknowledged by the EAD Service Steering Group, is listed in the table below:

EAD Services	Minimum service availability	Planned unavailability	Unplanned outages
INO BF	99,975%	Shall not exceed 60 minutes in total and not more than two times in a month 180 minutes for release deployments	Shall not exceed 30 minutes
INO DP			
INO DU			
SDO			
PAMS			
CHARTS	98%		Downtime and system recovery based on best available effort
AIP			
ESI			
EAD Basic ¹	95%		Downtime and system recovery based on best available effort

¹ Internet access for any user – Not for operational use

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6.2 Service capacity

The table below shows the average capacity per service made available by EAD to its customers: This yearly capacity corresponds to the calculated total for a year of the daily average capacity per service.

EAD Services	Description	Yearly Capacity
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For Data Users (& Data Providers)		
Flight plans preparation	Creation of flight plan through EAD interface, validation against SDO and IFPUV	5 Million
Flight plans distribution	Submissions and reception of flight plans and associated messages	11,5 Million
PIB generation	Generation of Pre-flight Information Bulletins	5,5 Million
SDO reporting	Retrieval pre-defined standard aeronautical data reports	2,5 Million
Graphical reporting	Graphical representation of information stored in EAD	200.000
PAMS download	Browse and download the effective version of AIPs, AIP Supplements and Amendments, AICs and chart publications.	30 Million

For Data Providers		
NOTAM creation	Number of NOTAM created through EAD	750.000
NOTAM processed	Worldwide NOTAM processed by EAD (excluding NOTAM creation through EAD)	1,9 Million
SDO upload	Upload of static data based on AICM/AIXM specifications and static data changes	1,2 Million
SDO download	Download of static data based on AICM/AIXM specifications	100.000
AIP operations	Validation and publication of AIPs	207.000
PAMS Upload	Upload of the effective version of AIPs, AIP Supplements and Amendments, AICs and chart publications.	160.000

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6.3 Service operations performance and quality

6.3.1 Service operations performance

6.3.1.1 Data Operations

EAD Data Operations maintains the ECAC full static data set and the operational worldwide (basic) data set. This data set has to be maintained as specified below, except for SDO migrated Data Providers or if otherwise agreed:

Changes received at least x days before the effective date	Maximum number of days for commitment before the effective date
Before 25	20
Between 25 and 15	10
Less than 15	by the effective date or within 5 working days after reception, whichever is later

NOTAM having an impact on static data (PERM NOTAM) are processed as follows:

- All changes based on PERM NOTAM with immediate effect or effective in the future, but not related to AIRAC information shall be committed within 2 calendar days after reception at the latest unless coordination with Data Provider is previously required;
- all changes based on PERM NOTAM with effective date in the future affecting incoming AIRAC information shall be committed at the latest two calendar days after the respective AIRAC information is committed unless coordination with Data Provider is previously required.

6.3.1.2 NOTAM Processing

This activity includes the processing of NOTAM, SNOWTAM, and ASHTAM received via AFTN. It consists of ensuring that all messages received are validated, coherent, in the required format and that their syntax and structure conform to ICAO Annex 15 and OPADD, prior to storage in the INO database and further distribution. To increase the quality of the NOTAM, they are validated systematically against the static data object in SDO.

The TAM processing service is measured in terms of time and volume.

Manual processing targets for incoming TAM are as follows:

- Average processing time for messages: 10 minutes (elapsed time between reception by the system and storage after manual processing);

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- 98,5% of messages processed within 30 minutes (elapsed time between reception by the system and storage after manual processing);
- 99% of checklist received as TAM shall be analysed within 48 hours after reception (elapsed time between the completion of the checklist analysis and the reception time of the TAM by the system).

6.3.1.3 PAMS

This service includes the maintenance of a library of last available Aeronautical Information Publications in digital format (AIP, Amendments, Supplements, Circulars, and Charts), for ECAC+ States which are not yet managing their Publications directly in EAD.

Two different categories are considered for the measurement of this service:

- CAT I : AMDT (Amendments), i.e. posting the PDF file of an AIP Amendment in PAMS;
- CAT II: updating in PAMS of the AIP sections and charts.

The maximum time allowed for the processing of the above categories is as follows:

Type of amendment or update	To be processed
CAT I	within 3 working days of receipt
CAT II Publications received on time ²	by the effective date
CAT II Publications received late	within 5 working days of receipt

6.3.2 Service Desk

The service desk manages tickets opened for any incidents and service requests. Ticket management includes the identification of the severity level, appropriate assignment according to the area of responsibility, traceability, follow up, recording of applicable solution or workaround, and an the estimated target date for the availability of the deployed solution.

Tickets are classified based on the following severity classes defined by EUROCONTROL:

² Up to 5 days prior to the effective date.

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Severity	Definition
High (A)	Service failure or malfunctioning, which has major impact on business and/or has impact on client(s) safety operations.
Medium (B)	Business is proceeding but is impaired either at Service Provider or at client.
Low (C)	No significant business impact

The Initial Feedback Time is the period from when the Ticket has been opened until the first call back or change in status has been made in the Ticket. The Initial Feedback Time does not mean resolution time.

This initial feedback time shall be in accordance with the Table below:

Severity	Initial Feedback Time
High (A)	1 hour
Medium (B)	4 hours
Low (C)	24 hours

6.4 DOP Data Consistency

Data Consistency service ensures that data errors loaded by DOP contained in the EAD are identified and acted upon, thus enhancing the consistency of EAD data.

Data consistency review is performed according to procedures described in the EAD DOP quality system. It is performed on both, not yet published data (SDO, PAMS) and, committed/processed data (SDO, INO, PAMS).

Type of service	Monthly percentage of service errors severity A/B less than
INO	2.5% of the total number of NOTAM reviewed
SDO	2.5% of the total number of static data changes reviewed
PAMS	2.5% of the total number of pages reviewed

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7 Revenues and business perspective

Depending on the type of client, different charges will be applied for the use of EAD services. These charges are Service Charges applied by EUROCONTROL and Royalty Fees defined by the Member States when EAD data is made available by the Client to third party end-users.

As from 2017, the certification of EAD by the EASA will be a strong enabler for the development of the business and the resulting revenue.

The services provided in 2016, for a total amount billed of 764 k€, are renewed in 2017.

However, this amount is expected to increase significantly, due to the planned migration of large non-EUROCONTROL States but also due to the expected migration of major Data Houses, which made a prerequisite of the EASA certification for their use of the service.

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8 Abbreviations

Term	Description
ADQ	Aeronautical Data Quality
AFTN	Aeronautical Fixed Telecommunication Network
AIC	Aeronautical Information Circular
AICM	Aeronautical Information Concept Model
AIM	Aeronautical Information Management
AIP	Aeronautical Information Publication
AIRAC	Aeronautical Information Regulation and Control
AIS	Aeronautical Information Services
AIXM	Aeronautical Information Exchange Model
ANSP	Air Navigation Service Provider
ASHTAM	NOTAM reporting ash hazard
ATC	Air Traffic Control
ATFM	Air Traffic Flow Management
ATM	Air Traffic Management
BF	Briefing Facility
DOP	Data Operations Provider
DP	Data Provider
DU	Data User
EAD	European AIS Database
EADAP	EAD Annual Plan
EC	European Commission
ECAC	European Civil Aviation Conference
ECAC+	States surrounding ECAC Area
EASA	European Aviation Safety Agency
ECIT	EAD Client Interface
EAIM	European Aeronautical Information Management
ESI	EAD System Interface
FTE	Full Time Equivalent
ICAO	International Civil Aviation Organization
IFPUV	IFPS Validation system
INO	International NOTAM Operations
IT	Information Technologies
ITP	IT Provider
KPI	Key Performance Indicator
MET	Meteorological data
NOTAM	Notification to Airmen
NSA	National Supervisory Authority
NMD	Network Management Directorate
NS	Network Services
PAMS	Published AIP Management System
OPADD	Operating Procedures for AIS Dynamic Data

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Term	Description
PERM NOTAM	Permanent NOTAM
PIB	Pre-flight Information Bulletin
SARPS	Standards and Recommended Practices
SDC	Static Data Completeness
SDD	Static and Dynamic Data
SDO	Static Data Operations
SDM	Static Data Management
SLS	Service Level Specifications
SNOWTAM	NOTAM reporting snow hazard
SP	Service Provider
SQSM	Safety & Quality Systems Management
SSG	Service Steering Group
SUP	Supplement
TAM	NOTAM, ASHTAM, SNOWTAM, BIRDTAM
TID	Test Item Discrepancy
TP	Training Provider
XML	Extensible Mark-up language

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