

EUROCONTROL Specification for Operational ANS Performance Monitoring - Airport Operator Data Flow

**EUROCONTROL
Specification for Operational
ANS Performance
Monitoring
Airport Operator Data Flow**

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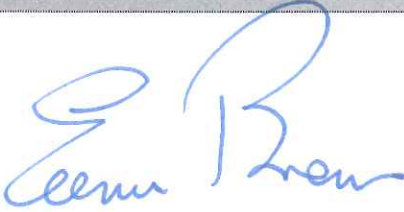
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Abstract			
<p>The EUROCONTROL Specification for Operational ANS Performance Monitoring - Airport Operator Data Flow, details the data exchange requirements between reporting entities and EUROCONTROL, and subsequent data handling processes. It supports the regular operational ANS performance monitoring and reporting under the EUROCONTROL Performance Review System established under the ECAC Institutional Strategy for Air Traffic Management (1997) and the Single European Sky Performance Scheme established under Implementing Regulation (EU) No 390/2013.</p> <p>The collected data is used to analyse and compare operational ANS performance (e.g. performance monitoring and benchmarking), supports the validation of other data sources processed by the EUROCONTROL Agency, and the production of regular Agency reports and studies based on aggregated results of the operational performance data (e.g. Performance Review Report, PRU and CODA publications).</p>			
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EXECUTIVE SUMMARY

This EUROCONTROL Specification details the data exchange requirements between reporting entities and EUROCONTROL, and subsequent data handling processes. It supports the regular operational ANS performance monitoring and reporting under the EUROCONTROL Performance Review System established under the ECAC Institutional Strategy for Air Traffic Management (1997) [1] and Article 21 Single European Sky Performance Scheme established under Implementing Regulation (EU) No 390/2013 [2].

The data is used by the EUROCONTROL Performance Review Commission (PRC) and the Performance Review Body (PRB) designated by the European Commission. Both entities are supported by the EUROCONTROL Performance Review Unit (PRU) which provides data analysis and advice to ensure the effective management of the European ATM system through a strong, transparent, and independent performance review and target setting system.

The data is further used for performance-data related monitoring and reporting by the EUROCONTROL Agency. This includes regular Agency reports and studies based on aggregated results of the operational performance data (e.g. Performance Review Report, PRU and CODA publications). It is also used for the validation of other data sources that the Agency processes.

The Specification details requirements for the monthly reporting of operational performance data by reporting entities responsible for the airport operator data collection and submission. In particular, data format, syntax, and permissible values to be communicated in the form of a data file. The Specification also includes requirements relating to quality criteria and business rules that are applied following the submission of the data files to EUROCONTROL.

The EUROCONTROL Standards development process has been applied to the development of this Specification. The Specification has been developed in close collaboration with the community of reporting entities.

1. Introduction

1.1 General

This EUROCONTROL Specification supports the operational performance monitoring and reporting of air navigation services (ANS) at and around airports under the EUROCONTROL Performance Review System [1] and the Single European Sky Performance Scheme [2].

The data is further used for performance-data related monitoring and reporting by the EUROCONTROL Agency. This includes regular Agency reports and studies based on aggregated results of the operational performance data (e.g. Performance Review Report, PRU and CODA publications). It is also used for the validation of other data sources that the Agency processes.

This Specification provides specific requirements which need to be met by reporting entities when providing data, including associated processes and procedures.

1.2 Purpose

This Specification document describes a data workflow named Airport Operator Data Flow (APDF). It:

- defines and establishes the processes and procedures for the regular operational performance data reporting;
- specifies the format of the data files to be submitted by the reporting entities; and
- identifies the requirements on the performance data in terms of processing and quality assurance.

Compliance with this Specification ensures timely and robust data for the purpose of operational performance monitoring and reporting. The Specification is also a means for harmonising and standardising the data requirements for the applicable performance frameworks in Europe.

Reporting entities submitting data to EUROCONTROL under this Specification are required to demonstrate compliance with this specification before being granted access to the data submission application. Following the demonstration of the operational readiness, reporting entities are then required to ensure compliance with this specification as part of the regular monthly performance reporting.

1.3 Scope

The scope of this Specification document is the Airport Operator Data Flow (APDF). Therefore the Specification addresses quality assurance and data quality requirements, which apply primarily during the submission and initial processing phases. Down-stream APDF quality processes are outside the scope of this Specification.

1.4 Applicability

The Airport Operator Data Flow is established for the purpose of operational ANS performance monitoring for airports with more than 70 000 flights per year¹.

National authorities may further decide to enlist airports to comply with this Specification irrespective of this threshold.

¹ This scope encompasses the requirement of Regulation (EU) No 390/2013, Article 1, Para 3 [2] which refers to 70 000 IFR air transport movements.

Airports below the aforementioned threshold of 70 000 flights per year or not nominated by their national authorities may decide to join the operational performance monitoring and comply with this Specification.

1.5 Conventions

The following conventions are used by this Specification:

- “**shall**” indicates a statement of the specification, the compliance with which is mandatory to achieve compliance with this specification.
- “**should**” indicates a statement of the specification, the compliance with which is recommended to achieve compliance with this specification.
- “**may**” indicates a statement of the specification, the compliance with which is optional.

Each requirement in this specification is preceded by an identifier as follows:

APDF-[Category]-[numeric identifier]-[Status]

where

APDF refers to the Airport Operator Data Flow (this specification);

- [Category] is a sequence of three letters to identify the respective procedure or process category to which the requirement applies;
- [numeric identifier] is a 3-digit number to uniquely identify a requirement within a category; and
- [Status] is a letter indicating the status of the requirement as mandatory (M), recommended (R), or optional (O).

The categories are:

- DSC: Data Submission and Collection;
- NCH: Non-Conformance Handling;
- POL: Data Policy;
- FFS: File Format and Syntax;
- RFS: Record Format and Syntax;
- ODI: Operational Data Item.

Cross-references to the referenced material of Section 1.8 are between square brackets. Abbreviations used throughout this Specification are listed in Section 1.7

1.6 Maintenance of the Specification

The maintenance of this Specification is performed by the EUROCONTROL Performance Unit in line with the EUROCONTROL Standardisation Development Procedures. The procedures are described in detail in Annex E.

1.7 Abbreviations

Term	Description
ANS	Air Navigation Services
APDF	Airport Operator Data Flow The set of processes and procedures comprising the data collection and processing of operational performance data for the purpose of regular performance monitoring and reporting.
CODA	Central Office for Delay Analysis
CSV	Comma Separated Value
DANSAP	Data for ANS Performance Reporting
IATA Coordination Levels 1/2/3	Categorisation of aerodromes in accordance with the guidelines established by the International Air Transport Association (IATA) worldwide airports slot group. Airports are grouped according to their coordination level as either <ul style="list-style-type: none"> - Level 1: non-coordinated airport; - Level 2: schedules facilitated airport; or - Level 3: coordinated airport.
IFPS	Integrated Initial Flight Plan Processing System
(K)PI	(Key) Performance Indicator
NM	Network Manager
ODI	Operational Data Item
PRB	Performance Review Body
PRC	Performance Review Commission
PRISME	Pan-European Repository of Information Supporting the Management of EATM
PRU	Performance Review Unit
Reporting Cycle	The period comprising the actual reporting months of flight operations and the month following this reporting month during which the operational performance data are reported.
Reporting Entity	The entity (e.g. function, office) identified being responsible for the regular provision of the data specified in this document.
SES	Single European Sky

1.8 Reference Material

1. ECAC Institutional Strategy for Air Traffic Management in Europe, adopted by ECAC Ministers of Transport, Copenhagen, 14. February 1997.
2. Commission Implementing Regulation (EU) No 390/2013 of 3 May 2013 laying down a performance scheme for air navigation services and network functions.
3. ICAO Doc 7910 - Manual on Location Indicators, Edition No. 167, March 2018.
4. IATA Airport Handling Manual, Chapter 7 – Aircraft Movement Control, section AHM730 and AHM731, 38th Edition, 2017.
5. ISO/IEC 10646:2017 Information technology, Universal Coded Character Set (UCS), Edition 5, December 2017.
6. ITU T.50 International Reference Alphabet (IRA) (Formerly International Alphabet No. 5 or IA5) - Information technology - 7-bit coded character set for information interchange, September 1992.
7. ICAO Doc 4444 - Air Traffic Management (PANS-ATM), Sixteenth Edition, 2016.

8. ICAO Annex 7 - Aircraft Nationality and Registration Marks, Sixth Edition, July 2012.
9. ICAO Doc 8643/46 - Aircraft Type Designators, April 2018
10. ICAO Annex 14 Volume I - Aerodrome Design and Operations, Eighth Edition, July 2018.
11. EUROCONTROL, ACI, IATA - The Manual. Airport CDM Implementation, Version 5.0, 31 March 2017
12. IATA Standard Schedules Information Manual, Edition 28, March 2018.
13. Council Regulation (EEC) No 95/93 of 18 January 1993 on common rules for the allocation of slots at Community airports
14. EUROCONTROL Specification for ATS Data Exchange Presentation (ADEXP), Edition 3.2, December 2017.

1.9 Document Structure

This document is structured as follows:

Section	Overview
Section 1	Defines the purpose, scope and applicability of the Specification. It introduces the naming conventions for the requirements, maintenance process, references and the list of abbreviations.
Section 2	Presents the airport operator data flow and its normative processes.
Section 3	Contains the normative requirements of the airport operator data flow. It specifies the format, syntax, and order of operational data items to be inserted in the data files.
Section 4	Overview of the additional quality assurance measures and the use of operational data items used for the association of flight data across different data sets.
Section 5	Complements and details the normative requirements for each operational data item referred by Section 3.
Annexes	
Annex A	Standard IATA Delay Codes (AHM 730 & 731)
Annex B	Standard IATA Delay Sub-Codes (AHM 731)
Annex C	Standard IATA Change Reasons (SSIM Chapter 2)
Annex D	IATA Service Types (SSIM Appendix C)
Annex E	Specification Update Procedures

2. Airport Operator Data Flow Processes

The Airport Operator Data Flow (APDF) covers all processes and procedures concerning the collection and processing of performance related data, including the calculation of related performance measures.

The requirements of this section focus on the data submission, collection and initial processing, i.e. APDF1 and APDF2, the overall quality assurance approach and conformance handling.

2.1 Data Flow Processes and Actors

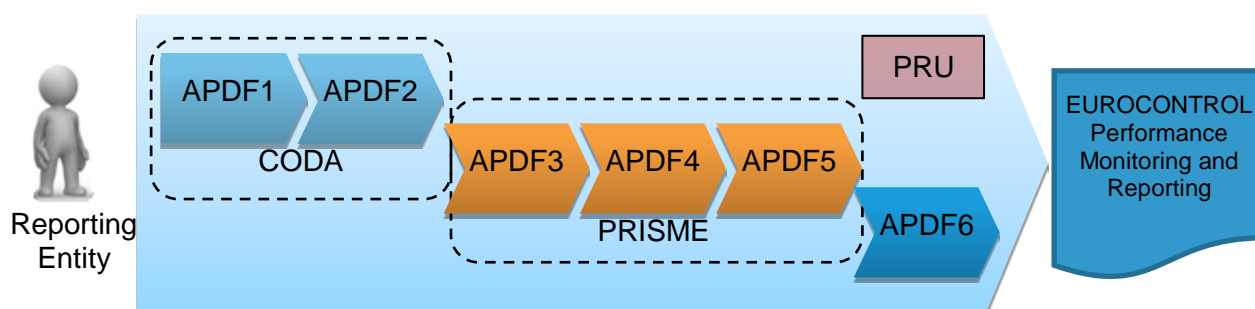


Figure 1 – Overview of Airport Operator Data Flow

The APDF relates to the set of processes and procedures established for the collection and processing of operational performance monitoring and reporting data. The data is required to calculate the operational ANS performance indicators.

The scope of the APDF comprises the following processes:

- APDF1 – data submission and collection
- APDF2 – data quality assessment
- APDF3 – extract and load data
- APDF4 – merge and load data
- APDF5 – pre-computation of performance parameters
- APDF6 – calculation of performance indicators

Figure 1 presents an overview of the APDF and the involved actors. The following key roles can be identified:

Actor	Key Role
Reporting Entity	Local data collection and preparation; monthly submission of the data files as described in this specification
Central Office for Delay Analysis (CODA)	Day-to-day management of the EUROCONTROL data collection and initial processing function.
Pan-European Repository of Information Supporting the Management of EATM (PRISME)	Day-to-day management of the EUROCONTROL data warehouse processing and storage of the performance data.

EUROCONTROL Performance Review Unit (PRU)	Overall responsibility for the APDF; Performance analyses and timely publication of performance monitoring and review deliverables.
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Table 1 – Airport Operator Data Flow Actors

2.2 Quality Assurance Approach

This Specification follows a quality assurance approach that is aligned with the ISO9000 standards and aims to address:

- data quality; and
- APDF process quality.

Data quality refers to the degree of excellence exhibited by the data comprising the state of completeness, validity, consistency, timeliness, and accuracy that makes the data appropriate for the purpose of performance monitoring and reporting.

For the purpose of quality assurance the following data quality characteristics have been identified:

Characteristic	Description
Format	The presentation of data resulting from the process of translating, arranging, packaging and processing of data submitted as data files following this specification.
Syntax	The set and sequence of permissible symbols forming an operational data item.
Completeness	The degree of confidence that all of the data, needed to support the intended use, has been provided.
Validity	The degree of confidence that data are collected and used in compliance with internal and external requirements, to ensure consistency and that they appropriately reflect what they are intended to measure.
Consistency and Comparability	The consistency of two or more data outputs refers to the degree to which processes by which data / information were generated used the same concepts - classifications, definitions, and target populations – and harmonised methods. Consistent outputs have the potential to be validly combined and used jointly. Comparability is a special case of consistency and addresses data / information outputs referring to the same data items and the aim of combining them is to make comparisons over time, or across regions, or across other domains.
Timeliness	The degree of confidence that the data are applicable to the period of its use, are promptly collected and reported within the timeframes specified in this specification.
Accuracy	The degree of conformance between the estimated or measured value and its true value.

Table 2 – Data Quality Characteristics

The quality process approach adopted for the APDF is a balance between sound methodology, appropriate procedures, non-excessive burden on reporting entities and cost effectiveness. Further documentation on the established APDF processes and procedures is available through the EUROCONTROL PRU web-portal (<http://ansperformance.eu>).

2.3 Data Submission and Collection

Data submission and collection is performed on the basis of reporting cycles. Reporting entities are required to submit their data files within one month following the month of operation (i.e. reporting month) of flight operations. Figure 2 presents the reporting cycle and the data quality assessments corresponding to APDF1 and APDF2 processes, mapped against the general reporting time line.

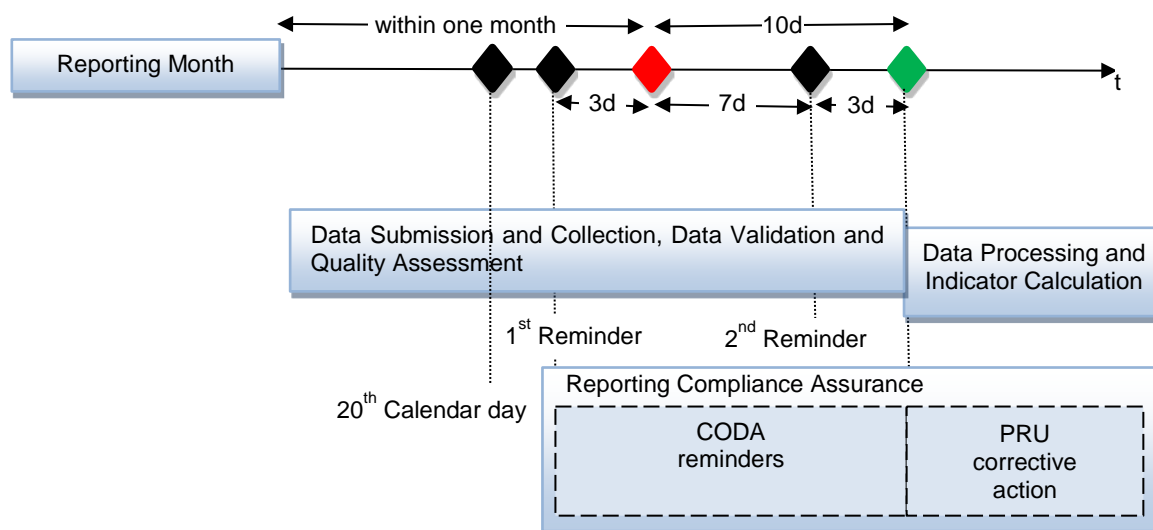


Figure 2 – APDF Data Submission, Collection, Verification and Validation

The monthly verification and validation is designed to support the regular reporting requirements and to ensure a consistent timeline of performance monitoring and reporting. For that purpose, it is foreseen that the further processing of performance data, i.e. ADPF3 through ADPF6, is initiated no later than 10 days after the end of the reporting cycle.

To achieve this aim, the following requirements apply:

APDF-DSC-010-M The reporting entity **shall** provide the data to EUROCONTROL via the APDF web-based tool within one month of the end of the reporting month (i.e. before the end of the reporting cycle).

APDF-DSC-020-R To allow for a shorter production time of the performance monitoring products, the reporting entity **should** provide the data **before the 20th calendar day of the month** following the reporting month.

As part of the data collection process, reminders are sent whenever a reporting entity may run or runs late to comply with the reporting timeline requirement. If the reporting entity fails to provide the data within the defined time period, EUROCONTROL PRU will initiate corrective action(s) to ensure timely reporting or, if required, will initiate escalation process and identifies an appropriate remedial action plan as described in the following requirements:

APDF-DSC-030-M EUROCONTROL **shall** send a first reminder to the reporting entity 3 days before the end of the month following the reporting month if the data files have not been submitted.

APDF-DSC-040-M If the reporting entity fails to provide the data files before the 7th day of the following month, EUROCONTROL **shall** issue a 2nd reminder with a deadline of three further days.

APDF-DSC-050-M EUROCONTROL PRU **shall** initiate and coordinate corrective action by advising the reporting entity about the logged non-submission and request – in collaboration with the respective authority – the provision of the data files or an appropriate remedial action plan.

2.4 Non-Conformance Handling

Following the submission of data, conformance checks are performed throughout all APDF processes. Non-conformances are identified by the format, syntax, and quality criteria of this specification. Associated quality controls and business rules are tailored for each APDF process step.

Major non-conformances result in a stop of the further processing of the data as the overall aim is no longer ensured. Major non-conformances comprise the format, syntax, and permissible value ranges for the reported data.

This Specification lists the respective quality criteria and business rules for each operational data item contained in the data files (see Section 5). In particular, the format, syntax, permissible value ranges, associated quality criteria and business rules applied during the validation of the collected data during the submission process.

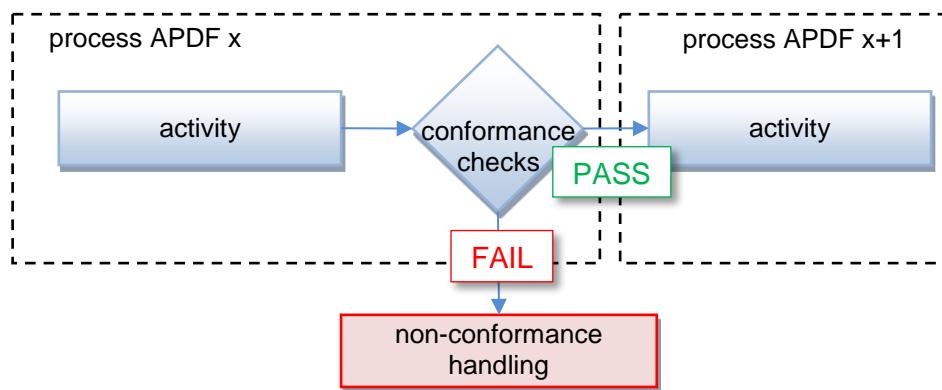


Figure 3 – Non-Conformance Handling

APDF-NCH-010-M During the submission of data files by reporting entities the EUROCONTROL APDF web-based tool **shall** inform the reporting entity about the identified non-conformances.

APDF-NCH-020-M Reporting entities **shall** address non-conformances by submitting the corrected data files in compliance with this Specification.

APDF-NCH-030-M If the data files corrected in accordance with APDF-NCH-020-M cannot be submitted within the reporting cycle, the reporting entity **shall** notify EUROCONTROL PRU.

APDF-NCH-050-M EUROCONTROL PRU **shall** withdraw the compliance status of a reporting entity in case of persistent non-conformances (i.e. two consecutive reporting cycles) and the absence of any remedial action plan.

Note: This request will be notified to the sponsoring bodies of the performance scheme (i.e. SES Performance Scheme: PRB/EC, EUROCONTROL Performance Review System: PRC).

APDF-NCH-060-M If a reporting entity's compliance status is withdrawn, EUROCONTROL PRU **shall** launch the escalation procedure with the appropriate national authority / sponsor.

Note: The escalation procedure refers to the agreed coordination between PRU and the national authority to ensure compliance of the reporting entity. Escalation is only launched after expert assessment of the underlying issues faced by the reporting entity.

3. Airport Operator Data Flow Data Files

3.1 Data Policy

The principal data quality policy for the APDF comprises the

- appropriate data collection, processing, analysis and reporting of accurate, reliable, and consistent performance data;
- establishment of an assurance framework to ensure sufficient action is being taken to meet data quality requirements; and
- compliance with audit standards and requirements.

The policy is accompanied by a set of processes and procedures with clearly identified actions, responsibilities and timescales. This implements the processes and quality assurance approach presented in section 2 with a view to support continual improvement of the data quality and associated pro-active remedial action planning.

APDF-POL-010-M Data provided under this Specification by the reporting entity **shall** comply with all the requirements set out for the respective operational data items.

In particular, the

- message syntactical and formatting requirements;
- record related requirements; and
- operational data item specific requirements

APDF-POL-020-M Data submitted which contain missing or non-conforming data required to calculate the performance measures **shall** be rejected in accordance with the non-conformance thresholds and rules specified in this Specification.

APDF-POL-030-M Rejected data **shall** be reviewed by the reporting entity and re-submitted in compliance with this Specification and the timeframes specified in Section 2.4.

3.2 File Format and Syntax

For the purpose of performance monitoring and review, this Specification defines data files of flight records and their associated operational data items (ODI) (see Figure 4). All records for a given airport and reporting month are submitted as separate departure and arrival files.

Detailed specification requirements for each ODI are given in Section 5. These requirements specify the data syntax, permissible value ranges and the associated quality criteria.

APDF-FFS-010-M For each reporting cycle, reporting entities **shall** submit an arrival data file and a departure data file reporting all arrivals and departures of the previous month.

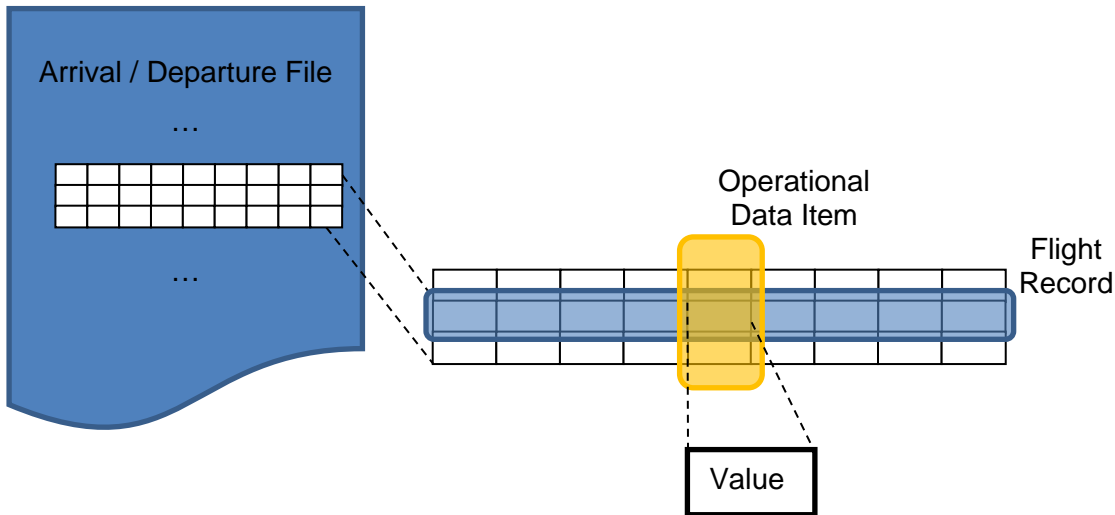


Figure 4 – Reporting File Structure

The following requirements describe the arrival and departure file naming, format and syntax:

APDF-FFS-020-M Arrival and departure files **shall** be provided as separate comma separated value (CSV) text files with the following naming convention:

- APDF_<<ICAO-Location-Indicator>>_ARR_YYYYMM.csv
- APDF_<<ICAO-Location-Indicator>>_DEP_YYYYMM.csv

Where the ICAO-Location-Indicator is a four letter code specified in ICAO Doc 7910 [3] and YYYYMM represents the year and month of the reporting period.

Note: For example, the Toulouse Blagnac airport arrival file for the reporting month of February 2018 is named APDF_LFBO_ARR_201802.csv.

APDF-FFS-030-M Arrival and departure files **shall** contain flight records separated by a CRLF (carriage return and line feed).

APDF-FFS-040-M Arrival and departure file flight records **shall** be composed of multiple operational data items specified in Section 5.

APDF-FFS-050-M Flight record operational data items **shall** be separated by a semi-colon (;).

APDF-FFS-060-M Operational data items **shall** be composed of printable characters corresponding to the ISO/IEC 10646 basic Latin alphabet [5] or ITU T.50 International Reference Alphabet (IRA) character sets [6].

Figure 5 illustrates the APDF file format structure based on the requirements of this specification.

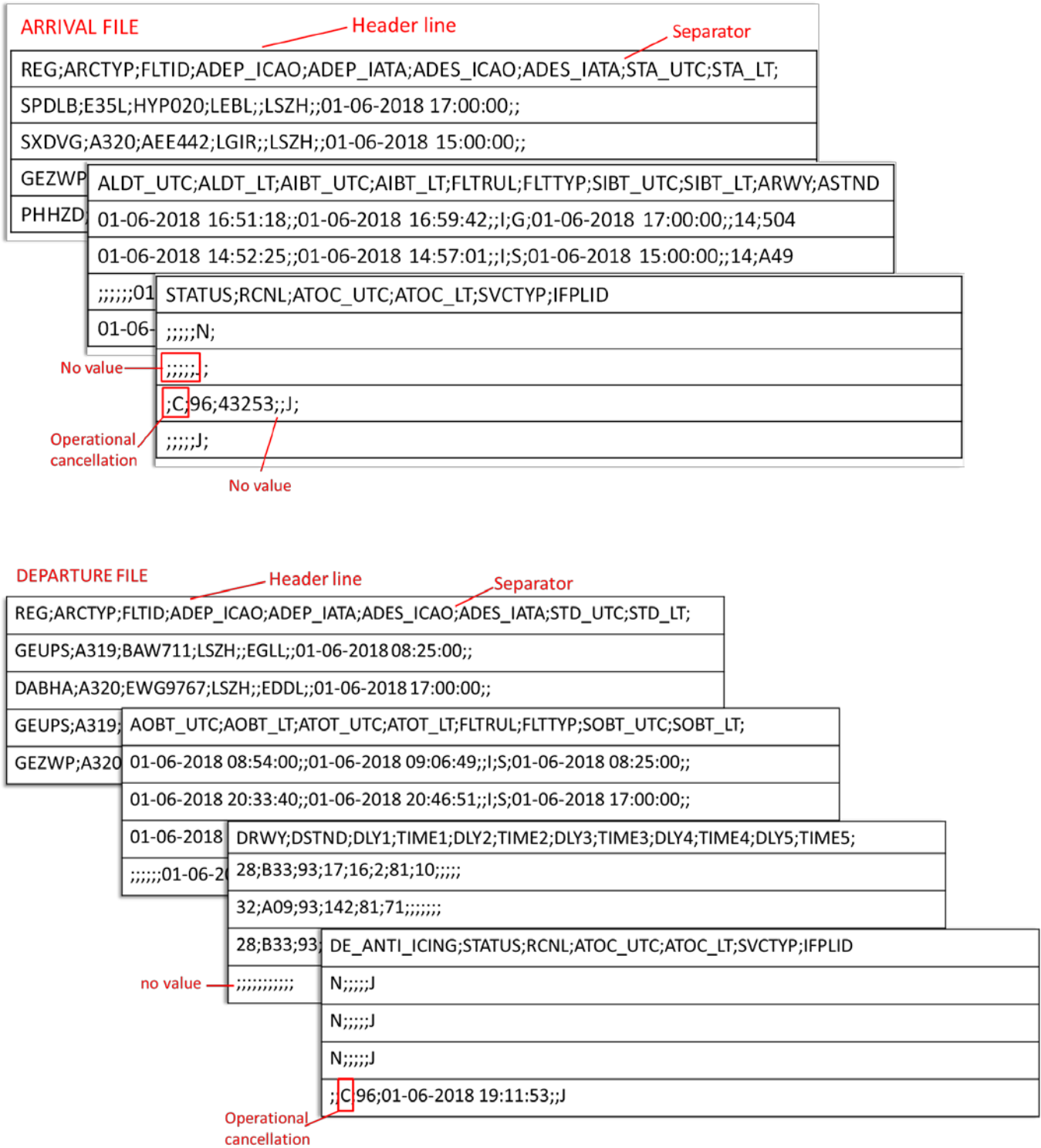


Figure 5 – APDF File Format and Syntax Examples

3.3 Flight Record Format and Syntax

Arrival and departure files report all operated and all cancelled flights for an airport for a given month. As a result, there are four types of flight records:

- arrival flight record and arrival cancellation flight record;
- departure flight record and departure cancellation flight record.

For each type the mandated flight record operational data items differ depending on the level of coordination (i.e. IATA Level 3, 2, or 1) of the airport. Table 3 and Table 4 detail the mandated, conditional, recommended and optional ODIs for each type and level of coordination.

Note: operational cancellations are reported as part of the arrival and departure file following the cancellation record format specified below.

APDF-RFS-010-M Arrival and departure file flight records **shall** include the ODIs as specified in Table 3 and Table 4.

Note: As detailed in Table 3 and Table 4, the presence of operational data items values for each flight record depends on the level of coordination of the airport (i.e. IATA Level 3, 2, or 1).

APDF-RFS-020-M Each arrival and departure file **shall** include a fixed header line composed of elements specified in Table 3, and Table 4.

Note: For editorial purposes, Table 3 and Table 4 list the header line elements vertically.

APDF-RFS-030-M File header line elements **shall** be separated by a semi-colon and the last element is followed by a CRLF (carriage return and line feed).

APDF-RFS-040-M For each flight record, the sequence of ODI values **shall** match the header line as specified in Table 3 and Table 4.

Note: ODIs may be composed of multiple values or representations corresponding to several header line elements. For example, ODI AD indicates the departure and arrival airports which can be represented in ICAO or IATA codes thereby matching four header line elements.

APDF-RFS-050-M Absent or non-required ODIs **shall** have an empty value.

Note: An empty value means that there will be a sequence of two semi-colons (i.e.;; with no blank space).

APDF-RFS-060-M Operational data items that allow for differing presentations of their value **shall** be accepted by conformance checks when the value complies with one of the presentations.

Note: For example, a time value can be in UTC or local time but must be presented as a numerical string matching a standard DD-MM-YYYY hh:mm:ss syntax.

APDF-RFS-070-R To support the harmonisation of reported data, the ICAO location identification and UTC time **should** be used.

3.3.1 Arrival Flight Records

APDF-RFS-100-M Operated arrival flight records **shall** comprise all required operational data items as specified in Table 3.

APDF-RFS-110-R Level 2 and 1 airports **should** provide the SIBT operational data element, if a facilitated schedule has been established.

APDF_ICAO_ARR_YYYYMM.csv					
HEADERLINE	ODI	L3 CAN	L3 ARR	L21 CAN	L21 ARR
REG	REG	R	M	R	M
ARCTYP	ARCTYP	M	M	M	M
FLTID	FLTID	M	M	M	M
ADEP_ICAO	AD	M	M	M	M
ADEP_IATA					
ADES_ICAO					
ADES_IATA					
STA.UTC	STA	M	M	M	M
STA_LT					
ALDT.UTC	ALDT	--	M	--	M
ALDT_LT					
AIBT.UTC	AIBT	--	M	--	M
AIBT_LT					
FLTRUL	FLTRUL	--	M	--	M
FLTTYP	FLTTYP	--	M	--	M
SIBT.UTC	SIBT	M	M	R	R
SIBT_LT					
ARWY	RWY	--	M	--	M
ASTND	STND	--	M	--	M
STATUS	STATUS	M	--	M	--
RCNL	RCNL	M	--	M	--
ATOC.UTC	ATOC	M	--	M	--
ATOC_LT					
SVCTYP	SVCTYP	O	O	O	O
IFPLID	IFPLID	O	O	O	O

Table 3 – Arrival File Flight Record Format

CAN – cancelled flight arrival record; ARR – operated arrival flight record
 IATA level of coordination: L3: Level 3 airport; L21: Level 2 or 1 airport
 -- not allowed, may fail conformance checking if present
 M mandatory
 C conditional
 R recommended
 O optional

3.3.2 Departure Flight Records

APDF-RFS-200-M Operated departure flight record **shall** comprise all required data items as specified in Table 4.

APDF-RFS-210-R Level 2 and 1 airports **should** provide the SOBT operational data element, if a facilitated schedule has been established.

APDF-RFS-220-M Operated departure flights are considered delayed if the delay threshold is breached, i.e. AOBT ≥ STD + 00:04:00 (240 seconds). In such cases, the corresponding flight records **shall** include at least one delay cause (i.e. DLY1) and the associated delay duration (i.e. TIME1).

APDF-RFS-230-O To allow for a proper accounting of various delay contributions, additional delay causes (DLY2 up to DLY5) and their delay duration (TIME2 up to TIME5) **may** be provided in the flight record.

APDF-RFS-240-M Unless five delay causes and times are already identified for a flight record, when the sum of the reported delay durations (by the air transport operator and/or ground handler and/or other) is less than the calculated delay (AOBT-STD), the time difference **shall** be reported in the flight record as an additional delay, using delay cause code ZZZ.

Notes for requirements APDF-RFS-220-M to APDF-RFS-240-M (refer to ODIs RDLY and TIME in Section 5):

1) If a non-standard IATA code or sub-code for a given delayed flight is provided or coordinated (e.g. by the air transport operator or ground handler) and the code cannot be cleared and/or converted into any of the standard IATA codes (i.e. AHM730 or AHM731, see Annex), then the code 999 is to be inserted as the respective DLYn value for ODI RDLY.

2) If for a given delayed flight neither the air transport operator nor the ground handler (or any other appropriate entity) provided information regarding the cause of the delay, then the code ZZZ is to be inserted as the DLY1 value for ODI RDLY. The associated field TIME1 is to be populated with the result of the actual delay, in minutes (AOBT minus STD). Code ZZZ can also be inserted as the DLYn in cases of multiple delays where there is a time difference between the total delay duration and the actual delay (AOBT minus STD).

3) If the reporting entity is implementing the processing of delay codes, the temporary use of delay code 000 for DLY1 may be permitted following coordination with EUROCONTROL PRU. The associated field TIME1 is to be populated with the result of the actual delay, in minutes (AOBT minus STD).

APDF_ICAO_DEP_YYYYMM.csv					
HEADERLINE	ODI	L3 CAN	L3 DEP	L21 CAN	L21 DEP
REG	REG	R	M	R	M
ARCTYP	ARCTYP	M	M	M	M
FLTID	FLTID	M	M	M	M
ADEP_ICAO	AD	M	M	M	M
ADEP_IATA					
ADES_ICAO					
ADES_IATA					
STD.UTC	STD	M	M	M	M
STD.LT					
AOBT.UTC	AOBT	--	M	--	M
AOBT.LT					
ATOT.UTC	ATOT	--	M	--	M
ATOT.LT					
FLTRUL	FLTRUL	--	M	--	M
FLTTYP	FLTTYP	--	M	--	M
SOBT.UTC	SOBT	M	M	R	R
SOBT.LT					
DRWY	RWY	--	M	--	M
DSTND	STND	--	M	--	M
DLY1	RDLY TIME	--	C	--	C
TIME1					
DLY2					
TIME2					
DLY3					
TIME3					
DLY4					
TIME4					
DLY5					
TIME5					
DE_ANTI_ICING	DE-ANTI-ICING	--	M	--	M
STATUS	STATUS	M	--	M	--
RCNL	RCNL	M	--	M	--
ATOC.UTC	ATOC	M	--	M	--
ATOC.LT					
SVCTYP	SVCTYP	O	O	O	O
IFPLID	IFPLID	O	O	O	O

Table 4 – Departure File Flight Record Format

CAN – cancelled departure record; DEP – operated departure flight record

IATA level of coordination: L3: Level 3 airport; L21: Level 2 or 1 airport

- not allowed, may fail conformance checking if present
- M mandatory
- C conditional
- R recommended
- O optional

3.3.3 Operational Cancellations (Arrival and Departure Record)

The actual traffic on the day of operations may be different from the scheduled and planned demand. A cancellation is a flight that is not operated by the airspace user at all. An operational cancellation therefore refers to a scheduled or planned flight (e.g. arrivals or departures) that is not operated on the day of operation for which an airport slot has been assigned (if the airport is slot coordinated), or the flight was confirmed by the airspace user the day before the operation (or it was contained in the daily list of flights before the day of operations). The reason for the cancellation reported by the airspace user and the associated time of notification (i.e. the time at which the flight is no longer considered for the planned demand) are also evaluated as part of the operational ANS performance monitoring.

APDF-RFS-300-M A cancellation record **shall** comprise all the required data items as specified in Table 3 and Table 4.

Notes:

- 1) If a non-standard IATA code for a given cancelled flight is provided or coordinated (e.g. by the air transport operator or ground handler) and the code cannot be cleared and/or converted into any of the standard IATA codes (i.e. AHM730, AHM731 or SSIM, see Annex), then the code 9999 is to be inserted for the value for ODI RCNL.
- 2) If for a given cancelled flight neither the air transport operator nor the ground handler provided any information regarding the reason for the cancellation, then the code ZZZZ is to be inserted as the value for ODI RCNL.
- 3) If the actual time of cancellation by the airspace user is not available, the reporting entity is to consider the time of entry into the airport system as the actual time of cancellation. In all other cases, the value 01-01-1990 00:00:00 is to be inserted as the UTC value for ODI ATOC.

APDF-RFS-310-R Level 3 airports **should** provide the aircraft registration (REG), if available at the time of cancellation.

APDF-RFS-320-R Level 2 and 1 airports **should** provide the following fields:

- aircraft registration (REG), if available at the time of cancellation;
- scheduled block times (SIBT and SOBT operational data elements), if a facilitated schedule has been established.

4. Additional Quality Assurance Measure

Section 2 provides an overview of the airport operator data flow and its data processing steps. This Specification has been drawn up to establish quality assurance principles ensuring a consistent approach to process and data quality of the APDF. The validation activities surrounding the APDF and the calculation of certain performance indicators (e.g. additional ASMA time) require the association of the data submitted by the reporting entity with data derived from other sources.

To facilitate unambiguous association of each received flight record with supporting secondary data sources, the following ODIs are used for matching purposes:

- REG, aircraft registration
- ARCTYP, aircraft type
- FLTID, flight identifier
- AD (ADEP/ADES), encoded airport of departure and destination
- AOBT, Actual Off-Block Time
- ATOT, Actual Take Off Time
- ALDT, Actual Landing Time
- AIBT, Actual In-Block Time
- IFPLID, IFPS flight plan identifier (highly desirable data item see Table 3 and Table 4).

5. Operational Data Item Specifications

APDF-ODI-010-M The operational data items defined in this section **shall** be applicable to all flight records provided under this Specification.

Notes:

- 1) The requirements for providing the operational data item as part of the respective arrival, departure or cancellation record are specified in Section 3.3.
- 2) Although optional in accordance with Section 3.3, the provision of the operational data items IATA Service Type, and IFPS Flight Plan ID, are highly desirable.

5.1 REG - Aircraft Registration

ODI	REG Aircraft registration
Definition	The nationality or common mark and registration mark of the aircraft.
Alternative definition	The alphanumeric characters corresponding to the actual registration of the aircraft
Source	ICAO Doc 4444 - Air Traffic Management (PANS-ATM) [7]
Background info	ICAO Annex 7 - Aircraft Nationality and Registration Marks [8]
ODI Syntax	
Type	Alphanumeric string
Comment	Not exceeding 7 alphanumeric characters and without hyphens or symbols or any other special character.
Value	Regex pattern [A-Z0-9]{1,7}
Example	ECJON
Quality Checks	
Relevance	Used for association with secondary data sources Key item for duplicated flights check ²
Accuracy	Aircraft type and registration match with PRISME Fleet ³
Consistency and Comparability	≥98% of completeness for IFR flights (flight rules I, Y or Z)
Other Checks	
Notes	

² duplicated flights: flight records for which association with other data sources fails (e.g. NM database) and which show identical airport of departure/destination (ADEP/ADES), aircraft registration (REG), and time stamps (STA/STD, ALDT/ATOT, AIBT/AOBT), excluding operational cancellations.

³ <https://www.eurocontrol.int/services/prisme-fleet>

5.2 ARCTYP - Aircraft Type

ODI	ARCTYP Aircraft type
Definition	A group of alphanumeric characters used to identify, in an abbreviated form, a type of aircraft.
Alternative definition	An aircraft type designator (up to four characters) as indicated in ICAO Doc 8643
Source	
Background info	ICAO Doc 8643 - Aircraft Type Designators [9]
ODI syntax	
Type	Alphanumeric string
Comment	Not exceeding 4 alphanumerical characters and without hyphens or symbols or any other special character.
Value	Regex pattern [A-Z0-9]{1,4}
Example	B738
Quality Checks	
Relevance	Used for association with secondary data sources
Accuracy	Aircraft type and registration shall be consistent with PRISME Fleet ⁴
Consistency and Comparability	≥ 98% of completeness for IFR flights (flight rules I, Y or Z) and operational cancellations
Other Checks	
Notes	

⁴ <https://www.eurocontrol.int/services/prisme-fleet>

5.3 FLTID - Flight Identifier

ODI	FLTID Flight identifier
Definition	The Call sign used by flight crew and ANSPs to identify an aircraft in air-ground communication (up to 7 characters) The registration marking of the aircraft, or the ICAO designator of the aircraft operator followed by the flight identification.
Alternative definition	Flight identifier means a group of alphanumeric characters used to identify a flight. Item 7 of the ICAO flight plan.
Source	EUROCONTROL Specification for ATS Data Exchange Presentation (ADEXP) [14]
Background info	ICAO Doc 4444 - Air Traffic Management (PANS-ATM) [7]
ODI syntax	
Type	Alphanumeric string
Comment	No space between the operator's designator and the aircraft registration or flight identification.
Value	Regex pattern [A-Z0-9]{1,7}
Example	IBE360K or ECJON
Quality Checks	
Relevance	Used for association with secondary data sources
Accuracy	
Consistency and Comparability	≥ 98% of completeness for IFR flights (flight rules I, Y or Z) and operational cancellations
Other Checks	
Notes	

5.4 FLTRUL - Flight rules

ODI	FLTRUL Flight rules
Definition	Flight rules means the rules used in conducting the flight. 'IFR' for aircraft flying according to instrument flight rules, as defined in Annex 2 of the Chicago Convention or 'VFR' for aircraft flying according to visual flight rules as defined in the same Annex. 'Operational Air Traffic (OAT)' refers to State aircraft not following the rules defined in Annex 2 of the Chicago Convention. Item 8 of the ICAO flight plan.
Alternative definition	
Source	
Background info	ICAO Doc 4444 - Air Traffic Management (PANS-ATM) [7]
ODI syntax	
Type	Alphanumeric string
Comment	Letters to denote the category of flight rules as defined in Appendix 2 of ICAO Doc 4444: I — entire flight operated under the IFR V — entire flight operated under the VFR Y — flight initially operated under the IFR, followed by one or more subsequent changes of flight rules Z — flight initially operated under the VFR, followed by one or more subsequent changes of flight rules
Value	Regex pattern <code>[IVYZ]{1}</code>
Example	I
Quality Checks	
Relevance	Key item for quality checks
Accuracy	
Consistency and Comparability	≥ 98% of completeness for operated flights
Other Checks	
Notes	

5.5 FLTTYP - Flight type

ODI	FLTTYP Flight type
Definition	Flight type means the type of flight as defined in Appendix 2 of ICAO Doc 4444 (15th Edition — June 2007)
Alternative definition	
Source	
Background info	ICAO Doc 4444 - Air Traffic Management (PANS-ATM) [7]
ODI syntax	
Type	Alphanumeric string
Comment	Letters to denote the type of flight as defined in Appendix 2 of ICAO Doc 4444: S — scheduled air service N — non-scheduled air transport operation G — general aviation M — military X — other than any of the defined categories above
Value	Regex pattern [SNGMX]{1}
Example	S
Quality Checks	
Relevance	Key item for quality checks
Accuracy	
Consistency and Comparability	≥98% of completeness for IFR flights (flight rules I, Y or Z)
Other Checks	
Notes	

5.6 AD – Aerodrome of departure and of destination

ODI	AD aerodrome of departure/destination (ADEP_ICAO, ADEP_IATA, ADES_ICAO, ADES_IATA)
Definition	The aerodrome of departure/destination means the code of the airport using the ICAO four-letter or the IATA three-letter airport designator
Alternative definition	
Source	
Background info	ICAO Doc 7910 - Location Indicators [3]
ODI syntax	
Type	Alphanumeric string
Comment	Either ICAO (recommended) or IATA code is sufficient but both may be provided.
Value	Regex pattern [A-Z]{4} or [A-Z]{3}
Example	LEMD or MAD
Quality Checks	
Relevance	Used for association with secondary data sources
Accuracy	Location indicator codes shall be consistent with ICAO Doc 7910 - Location Indicators.
Consistency and Comparability	≥ 98% of completeness for IFR flights (flight rules I, Y or Z) and operational cancellations
Other Checks	
Notes	

5.7 RWY - Arrival and departure runway designator

ODI	RWY Runway designator
Definition	Arrival runway designator and departure runway designator mean the ICAO designator of the runway used for landing and for take-off (e.g. 10L);
Alternative definition	
Source	
Background info	ICAO Annex 14 Volume I - Aerodrome Design and Operations [10]
ODI syntax	
Type	Alphanumeric string
Comment	<p>A runway designator consists of a two-digit number and on parallel runways shall be supplemented with a letter. On a single runway, dual parallel runways and triple parallel runways the two-digit number shall be the whole number nearest the one-tenth of the magnetic North when viewed from the direction of approach. On four or more parallel runways, one set of adjacent runways shall be numbered to the nearest one-tenth magnetic azimuth and the other set of adjacent runways numbered to the next nearest one-tenth of the magnetic azimuth. When the above rule would give a single digit number, it shall be preceded by a zero. In the case of parallel runways, each runway designation number shall be supplemented by a letter as follows, in the order shown from left to right when viewed from the direction of approach:</p> <ul style="list-style-type: none"> — two parallel runways: “L” “R”; — three parallel runways: “L” “C” “R”; — four parallel runways: “L” “R” “L” “R”; — five parallel runways: “L” “C” “R” “L” “R” or “L” “R” “L” “C” “R”; and — six parallel runways: “L” “C” “R” “L” “C” “R”.
Value	Regex pattern [0-9]{2}[LRC]{0,1} or [H]{1}[[A-Z0-9]{0,2}
Example	08R or H
Quality Checks	
Relevance	Key item for (K)PIs calculation
Accuracy	Runway designators shall be consistent with AIP AD2
Consistency and Comparability	≥ 98% of completeness for IFR flights (flight rules I, Y or Z)
Other Checks	
Notes	

5.8 STND - Arrival and departure stand

ODI	STND Stand
Definition	Arrival stand (ASTND) means the designator of the first parking position where the aircraft was parked upon arrival. Departure stand (DSTND) means the designator of the last parking position where the aircraft was parked before departing from the airport
Alternative definition	
Source	
Background info	
ODI syntax	
Type	Alphanumeric string
Comment	
Value	Regex pattern [A-Z0-9] {1,32}
Example	A69 or TG/LA (c.f. notes below)
Quality Checks	
Relevance	Key item for (K)PIs calculation
Accuracy	Stand (parking position) designators shall be consistent with AIP AD2
Consistency and Comparability	≥ 98% of completeness for IFR flights (flight rules I, Y or Z)
Other Checks	
Notes	For touch-and-go and low approach manoeuvres, the unique code TG/LA shall be provided in fields ASTND and DSTND.

5.9 STD - Schedule Time of Departure (off-block)

ODI	STD Scheduled time of departure (off-block) (STD_UTC, STD_LT)
Definition	The time that an aircraft is scheduled to depart from its parking position in UTC or Local Time
Alternative definition	The scheduled time of departure (off-block) means date and time when a flight is scheduled to depart from the departure stand.
Source	
Background info	
Scope	Departures and departure operational cancellations
ODI syntax	
Type	Numeric string representing a date and time
Comment	Time in UTC or LT (Local Time) is sufficient but both may be provided.
Value	DD-MM-YYYY hh:mm:ss
Example	27-05-2014 09:05:00
Quality Checks	
Relevance	Key item for (K)PIs calculation Key item for quality checks Key item for duplicated flights check ⁵
Accuracy	
Consistency and Comparability	≥ 98% of completeness for IFR flights (flight rules I, Y or Z) and operational cancellations ≥ 95% of associated flights (Airport vs Airline) with values in tolerance interval]-1,+1[min ≥ 99% of associated flights (Airport vs Airline) with values in tolerance interval [-120,+120] min
Other Checks	
Notes	

⁵ duplicated flights: flight records for which association with other data sources fails (e.g. NM database) and which show identical airport of departure/destination (ADEP/ADES), aircraft registration (REG), and time stamps (STA/STD, ALDT/ATOT, AIBT/AOBT), excluding operational cancellations.

5.10 STA - Schedule Time of Arrival (in-block)

ODI	STA Scheduled time of arrival (on-block) (STA_UTC, STA_LT)
Definition	The time that an aircraft is scheduled to arrive at its first parking position in UTC or Local Time
Alternative definition	The scheduled time of arrival (on-block)' means the date and time when a flight is scheduled to arrive at the arrival stand.
Source	
Background info	
ODI syntax	
Type	Numeric string representing a date and time
Comment	Time in UTC or LT (Local Time) is sufficient but both may be provided.
Value	DD-MM-YYYY hh:mm:ss
Example	15-09-2013 08:05:00
Quality Checks	
Relevance	Key item for quality checks Key item for duplicated flights check ⁶
Accuracy	
Consistency and Comparability	≥ 98% of completeness for IFR flights (flight rules I, Y or Z) and operational cancellations ≥ 95% of associated flights (Airport vs Airline) with values in tolerance interval]-1,+1[min ≥ 99% of associated flights (Airport vs Airline) with values in tolerance interval [-120,+120] min
Other Checks	
Notes	

⁶ duplicated flights: flight records for which association with other data sources fails (e.g. NM database) and which show identical airport of departure/destination (ADEP/ADES), aircraft registration (REG), and time stamps (STA/STD, ALDT/ATOT, AIBT/AOBT), excluding operational cancellations.

5.11 AOBT - Actual Off-Block Time

ODI	AOBT Actual off-block time (AOBT_UTC, AOBT_LT)
Definition	The actual off-block time means the actual date and time the aircraft has vacated the parking position in UTC or Local Time (pushed back or on its own power)
Alternative definition	Time the aircraft pushes back / vacates the parking position; equivalent to Airline / Handlers ATD – Actual Time of Departure, ACARS=OUT)
Source	EUROCONTROL, ACI, IATA - The Manual. Airport CDM Implementation [11]
Background info	
ODI syntax	
Type	Numeric string representing a date and time
Comment	Time in UTC or LT (Local Time) is sufficient but both may be provided.
Value	DD-MM-YYYY hh:mm:ss
Example	06-03-2014 09:05:00
Quality Checks	
Relevance	Used for association with secondary data sources Key item for (K)PIs calculation Key item for duplicated flights check ⁷ Key item for chronological order check
Accuracy	100% flights with AOBT ≤ ATOT ≥ 95% flights with AXOT ⁸ > 0 min ≥ 95% flights with AXOT < 60min
Consistency and Comparability	≥ 98% of completeness for IFR flights (flight rules I, Y or Z) ≥ 95% of associated flights with (Airport vs Airline) values in tolerance interval [-3,+3] min ≥ 99% of associated flights with (Airport vs Airline) values in tolerance interval [-120,+120] min
Other Checks	
Notes	For both, touch-and-go and low approach manoeuvres, AOBT shall be equal to ATOT.

⁷ duplicated flights: flight records for which association with other data sources fails (e.g. NM database) and which show identical airport of departure/destination (ADEP/ADES), aircraft registration (REG), and time stamps (STA/STD, ALDT/ATOT, AIBT/AOBT), excluding operational cancellations.

⁸ AXOT: Actual Taxi-Out Time. Metric ATOT – AOBT

5.12 ATOT - Actual Take Off Time

ODI	ATOT Actual take-off time (ATOT.UTC, ATOT.LT)
Definition	The actual take off time means the date and time that an aircraft has taken off from the runway in UTC or Local Time (wheels-up)
Alternative definition	The time that an aircraft takes off from the runway. (Equivalent to ATC ATD – Actual Time of Departure, ACARS = OFF)
Source	EUROCONTROL, ACI, IATA - The Manual. Airport CDM Implementation [11]
Background info	
ODI Syntax	
Type	Numeric string representing a date and time
Comment	Time in UTC or LT (Local Time) is sufficient but both may be provided.
Value	DD-MM-YYYY hh:mm:ss
Example	11-01-2008 09:10:00
Quality Checks	
Relevance	Key item for (K)PIs calculation Used for association with secondary data sources Key item for duplicated flights check ⁹ Key item for chronological order check
Accuracy	100% flights with AOBT ≤ ATOT ≥ 95% flights with AXOT ¹⁰ > 0 min ≥ 95% flights with AXOT < 60min
Consistency and Comparability	≥ 98% of completeness for IFR flights (flight rules I, Y or Z) ≥ 95% of associated flights with (Airport vs Airline) values in tolerance interval [-3,+3] min ≥ 95% of associated flights with (Airport vs NM) values in tolerance interval [-3,+3] min ≥ 99% of associated flights with (Airport vs Airline) values in tolerance interval [-120,+120] min ≥ 99% of associated flights with (Airport vs NM) values in tolerance interval [-120,+120] min
Other Checks	
Notes	

⁹ duplicated flights: flight records for which association with other data sources fails (e.g. NM database) and which show identical airport of departure/destination (ADEP/ADES), aircraft registration (REG), and time stamps (STA/STD, ALDT/ATOT, AIBT/AOBT), excluding operational cancellations.

¹⁰ AXOT: Actual Taxi-Out Time. Metric ATOT – AOBT

5.13 ALDT - Actual Landing Time

ODI	ALDT Actual landing time (ALDT.UTC, ALDT.LT)
Definition	The actual landing time means the actual date and time when the aircraft has landed in UTC or Local Time (touch down)
Alternative definition	The time that an aircraft lands on a runway. (Equivalent to ATC ATA – Actual Time of Arrival, ACARS = ON)
Source	EUROCONTROL, ACI, IATA - The Manual. Airport CDM Implementation [11]
Background info	
ODI syntax	
Type	Numeric string representing a date and time
Comment	Time in UTC or LT (Local Time) is sufficient but both may be provided.
Value	DD-MM-YYYY hh:mm:ss
Example	11-01-2008 09:05:00
Quality Checks	
Relevance	Key item for (K)PIs calculation Used for association with secondary data sources Key item for duplicated flights check ¹¹ Key item for chronological order check
Accuracy	100% flights with ALDT ≤ AIBT ≥ 95% flights with AXIT ¹² > 0 min ≥ 95% flights with AXIT < 60min
Consistency and Comparability	≥ 98% of completeness for IFR flights (flight rules I, Y or Z) ≥ 95% of associated flights with (Airport vs Airline) values in tolerance interval [-3,+3] min ≥ 95% of associated flights with (Airport vs NM) values in tolerance interval [-3,+3] min ≥ 99% of associated flights with (Airport vs Airline) values in tolerance interval [-120,+120] min ≥ 99% of associated flights with (Airport vs NM) values in tolerance interval [-120,+120] min
Other Checks	
Notes	

¹¹ duplicated flights: flight records for which association with other data sources fails (e.g. NM database) and which show identical airport of departure/destination (ADEP/ADES), aircraft registration (REG), and time stamps (STA/STD, ALDT/ATOT, AIBT/AOBT), excluding operational cancellations.

¹² AXIT: Actual Taxi-In Time. Metric AIBT – ALDT

5.14 AIBT - Actual In-Block Time

ODI	AIBT Actual on-block time (AIBT.UTC, AIBT.LT)
Definition	The actual on-block time means the date and time in UTC or Local Time when the parking brakes have been engaged at the arrival stand
Alternative definition	The time that an aircraft arrives in-blocks. (Equivalent to Airline/Handler ATA – Actual Time of Arrival, ACARS = IN) The actual date and time when the parking brakes have been engaged at the parking position.
Source	EUROCONTROL, ACI, IATA - The Manual. Airport CDM Implementation [11]
Background info	
ODI syntax	
Type	Numeric string representing a date and time
Comment	Time in UTC or LT (Local Time) is sufficient but both may be provided.
Value	DD-MM-YYYY hh:mm:ss
Example	11-01-2008 09:10:00
Quality Checks	
Relevance	Used for association with secondary data sources Key item for duplicated flights check ¹³ Key item for chronological order check
Accuracy	100% flights with ALDT ≤ AIBT ≥ 95% flights with AXIT > 0 min ≥ 95% flights with AXIT < 60min
Consistency and Comparability	≥ 98% of completeness for IFR flights (flight rules I, Y or Z) ≥ 95% of associated flights with (Airport vs Airline) values in tolerance interval [-3,+3] min ≥ 99% of associated flights with (Airport vs Airline) values in tolerance interval [-120,+120] min
Other Checks	
Notes	For both, touch-and-go and low approach manoeuvres, AIBT shall be equal to ALDT.

¹³ duplicated flights: flight records for which association with other data sources fails (e.g. NM database) and which show identical airport of departure/destination (ADEP/ADES), aircraft registration (REG), and time stamps (STA/STD, ALDT/ATOT, AIBT/AOBT), excluding operational cancellations.

5.15 RDLY - Delay causes

ODI	RDLY Delay cause (DLY1, DLY2, DLY3, DLY4, DLY5)
Definition	Delay causes means the standard IATA delay codes as defined in the respective IATA Handling Manuals with the duration of the delay. Where several causes may be attributable to flight delays, a list of those causes shall be provided
Alternative definition	
Source	
Background info	IATA Airport Handling Manual (AHM730 and AHM731) [4]
ODI syntax	
Type	Alphanumeric string
Comment	Delay codes are to be provided in the following code formats: <ul style="list-style-type: none"> — 2-number code with an optional 1-letter sub-code from IATA's Airport Handling Manual 730 and 731 (highly recommended); or — 2-letter code with an optional 1-letter sub-code from IATA's Airport Handling Manual 730 and 731; or — 3-digit code 999 or 000 (see below notes); or — 3-letter code ZZZ (see below notes)
Value	Regex patterns: <ul style="list-style-type: none"> — [0-9]{2} or [0-9]{2}[A-Z]{1}; or — [A-Z]{2} or [A-Z]{3}; or — [9]{3} or [0]{3}; or — [Z]{3}
Example	89M
Quality Checks	
Relevance	Key item for (K)PIs calculation
Accuracy	IATA AHM730 codes and AHM731 sub-codes check
Consistency and Comparability	100% completeness of TIME _n if DLY _n is not null (for n = 1, 2, 3, 4, and 5) % Completeness check for flights on NM database where AOBT ≥ STD+00:04:00 and FLTTYP=[S] % Completeness check for flights on NM database where AOBT ≥ STD+00:04:00 and FLTTYP=[N]
Other Checks	
Notes	<ul style="list-style-type: none"> — If delay code clearing is not possible, the special code 999 shall be used as delay cause code. — If no delay code information is available/attainable, the special code ZZZ shall be provided. — If a reporting entity is incapable to provide the delay

	code(s) (e.g. technical transition phase to APDF), then the special code 000 shall be used as delay cause.
--	--

5.16 TIME - Duration of the delay

ODI	TIME Duration of the delay (TIME1, TIME2, TIME3, TIME4, TIME5)
Definition	The associated duration attributed to a delay cause (in minutes)
Alternative definition	
Source	
Background info	IATA Airport Handling Manual (AHM730 and AHM731) [4]
ODI syntax	
Type	Integer
Comment	Minutes of encountered delay
Value	Regex pattern [0-9]{1,4}
Example	162
Quality Checks	
Relevance	Key item for (K)PIs calculation
Accuracy	$(AOBT - STD) \geq (TIME1+TIME2+TIME3+TIME4+TIME5)$
Consistency and Comparability	<p>100% completeness of TIME_n if DLY_n is not null (n = 1, 2, 3, 4, 5) % Completeness check for flights where AOBT ≥ STD+00:04:00 and FLTTYP=[S] % Completeness check for flights where AOBT ≥ STD+00:04:00 and FLTTYP=[N]</p> <p>An informational warning is displayed on the APDF web-based tool for flight records where: DLY_TIME ≥ (AOBT-STD)-00:05:00 Where DLY_TIME = TIME1 + TIME2 + TIME3 + TIME4 + TIME5;</p> <p>≥ 90% of the flight records in the departure data files need to comply with: DLY_TIME ≥ (AOBT-STD) - 00:20:00</p>
Other Checks	
Notes	

5.17 DE-ANTI-ICING - De-icing and anti-icing information

ODI	DE_ANTI_ICING De-icing or anti-icing information
Definition	De-icing or anti-icing information means indication if de-icing or anti-icing operations occurred and where (before leaving the departure stand or in a remote position after departing the stand, i.e. after off-block) the de-icing/anti-icing occurred.
Alternative definition	
Source	
Background info	
ODI Syntax	
Type	Alphanumeric string
Comment	A — after AOBT B — before AOBT N — no de/anti-icing process Z — no de/anti-icing information available
Value	Regex pattern [ABNZ]{1}
Example	A
Quality Checks	
Relevance	Key item for (K)PIs calculation
Accuracy	
Consistency and Comparability	100% of completeness for operated flights
Other Checks	
Notes	If no de/anti-icing information is available, the value Z shall be used.

5.18 STATUS - Operational cancellation information

ODI	STATUS Cancellation status
Definition	Operational cancellation refers to a scheduled arrival or departure flight to which the following conditions apply: — the flight received an airport slot (if the airport is subject to slot coordination), and — the flight was confirmed by the air carrier the day before operations and/or it was contained in the daily list of flight schedules produced by the airport operator the day before operations, but — the actual landing or take-off never occurred.
Alternative definition	
Source	
Background info	
ODI syntax	
Type	Alphanumeric string
Comment	C—Cancelled [Blank] — not Cancelled
Value	Regex pattern [C]{1}
Example	C
Quality Checks	
Relevance	
Accuracy	
Consistency and Comparability	Number of operational cancellations where $(SOBT-12h) \leq ATOC < (SOBT-3h)$ Number of operational cancellations where $(SOBT-3h) \leq ATOC < SOBT$ Number of operational cancellations where $ATOC \geq SOBT$
Other Checks	
Notes	

5.19 RCNL - Reason for Cancellation

ODI	RCNL Reason for cancellation
Definition	The reason (explanatory code) for an operational cancellation (c.f. ODI 18).
Alternative definition	
Source	
Background info	IATA Airport Handling Manual (AHM730 and AHM731) [4] IATA Standard Schedules Information Manual [12]
ODI syntax	
Type	Alphanumeric string
Comment	<p>Cancellation reason codes are to be provided in the following code formats:</p> <ul style="list-style-type: none"> — 2-number code with an optional 1-letter sub-code from IATA's Airport Handling Manual 730 and 731 (highly recommended); or — 2-letter code with an optional 1-letter sub-code from IATA's Airport Handling Manual 730 and 731; or — 4-letter code from IATA's Standard Schedules Information Manual; or — Special codes: 9999 and ZZZZ(c.f. notes below)
Value	<p>Regex patterns:</p> <ul style="list-style-type: none"> — [0-9]{2} or [0-9]{2}[A-Z]{1}; or — [A-Z]{2} or [A-Z]{3}; or — SSIM: [A-Z]{4}; or — Special codes: [9]{4} and [Z]{4}
Example	89, TECH
Quality Checks	
Relevance	
Accuracy	IATA AHM730, AHM731 and SSIM codes check
Consistency and Comparability	100% completeness for operational cancellations
Other Checks	
Notes	<ul style="list-style-type: none"> — If reason clearing is not possible, the special code 9999 shall be used as encoded reason for cancellation. — If no reason of cancellation is available/attainable, the special code ZZZZ shall be provided.

5.20 ATOC - Actual Time Of Cancellation

ODI	ATOC Actual time of cancellation (ATOC_UTC, ATOC_LT)
Definition	Date and time when the flight is not considered anymore in the planned demand of the airport system in UTC or Local Time (AODB ¹⁴ and/or RMS ¹⁵).
Alternative definition	The actual time of cancellation means the actual date and time when an arrival or departure of a scheduled flight was cancelled.
Source	
Background info	
ODI syntax	
Type	Numeric string representing a date and time
Comment	Time in UTC or LT (Local Time) is sufficient but both may be provided.
Value	DD-MM-YYYY hh:mm:ss
Example	11-11-2014 09:05:00
Quality Checks	
Relevance	
Accuracy	
Consistency and Comparability	100% completeness for operational cancellations Number of operational cancellations where (STD-12h) ≤ ATOC < (STD-3h) Number of operational cancellations where (STD-3h) ≤ ATOC < STD Number of operational cancellations where ATOC ≥ STD
Other Checks	
Notes	If the actual time of cancellation is not available, the value 01-01-1990 00:00:00 shall be used instead.

¹⁴ AODB: Airport Operational Database

¹⁵ RMS: Resource Management System

5.21 SOBT - Airport Departure Slot / Scheduled Off-Block Time

ODI	SOBT Airport departure slot (SOBT_UT, SOBT_LT)
Definition	The airport arrival slot and airport departure slot mean an airport slot assigned either to an arrival or departure flight in accordance with the applicable airport slot allocation processes.
Alternative definition	
Source	
Background info	Regulation (EEC) No 95/93 [13]
ODI syntax	
Type	Numeric string representing a date and time
Comment	Time in UTC or LT (Local Time) is sufficient but both may be provided.
Value	DD-MM-YYYY hh:mm:ss
Example	11-01-2008 09:05:00
Quality Checks	
Relevance	Key item for (K)PIs calculation
Accuracy	
Consistency and Comparability	% Completeness check for flights on NM database ≥ 98% of completeness for IFR flights (flight rules I, Y or Z)
Other Checks	
Notes	Mandatory for level 3 airports Recommended for level 2 and 1 airports based on facilitated schedules

5.22 SIBT - Airport Arrival Slot / Scheduled In-Block Time

ODI	SIBT Airport arrival slot (SIBT_UTC, SIBT_LT)
Definition	The airport arrival slot and airport departure slot mean an airport slot assigned either to an arrival or departure flight in accordance with the applicable airport slot allocation processes.
Alternative Definition	
Source	
Background info	Regulation (EEC) No 95/93 [13]
ODI syntax	
Type	Numeric string representing a date and time
Comment	Time in UTC or LT (Local Time) is sufficient but both may be provided.
Value	DD-MM-YYYY hh:mm:ss
Example	11-01-2008 09:05:00
Quality Checks	
Relevance	
Accuracy	
Consistency and Comparability	% Completeness check for flights on NM database ≥ 98% of completeness for IFR flights (flight rules I, Y or Z)
Other Checks	
Notes	Mandatory for level 3 airports Recommended for level 2 and 1 airports based on facilitated schedules

5.23 SVCTYP - IATA Service Type

ODI	SVCTYP IATA Service Type
Definition	Code used for the classification of a flight or flight-segment as well as the type of service provided.
Alternative definition	
Source	IATA Standard Schedules Information Exchange – Appendix C Service Types [12]
Background info	
ODI syntax	
Type	Alphanumeric string
Comment	
Value	Regex pattern [A-X]{1}
Example	J
Quality Checks	
Relevance	
Accuracy	
Consistency and Comparability	
Other Checks	
Notes	

5.24 IFPLID - IFPS Flight Plan ID

ODI	IFPLID IFPS Flight Plan ID
Definition	A unique identifier assigned to a flight by IFPS.
Alternative definition	
Source	
Background info	
ODI syntax	
Type	Alphanumeric string
Comment	
Value	Regex pattern [A-Z]{2}[0-9]{8}
Example	AA12345678
Quality Checks	
Relevance	Used for association with secondary data sources
Accuracy	
Consistency and Comparability	
Other Checks	
Notes	Flight identification shall be mainly based upon the IFPLID if available. The REG, ARCTYP, FLTID, ADEP, ADES and OOOI timestamps are included in the matching methods for readability and cross-check purposes.

Annex A - Standard IATA Delay Codes (AHM 730 & 731)

Others

- 00-05 AIRLINE INTERNAL CODES
- 06 (OA) NO GATE/STAND AVAILABILITY DUE TO OWN AIRLINE ACTIVITY Including Early Arrivals
- 09 (SG) SCHEDULED GROUND TIME LESS THAN DECLARED MINIMUM GROUND TIME

Passenger and Baggage

- 11 (PD) LATE CHECK-IN, acceptance after deadline
- 12 (PL) LATE CHECK-IN, congestions in check-in area
- 13 (PE) CHECK-IN ERROR, passenger and baggage
- 14 (PO) OVERSALES, booking errors
- 15 (PH) BOARDING, discrepancies and paging, missing checked-in passenger
- 16 (PS) COMMERCIAL PUBLICITY/PASSENGER CONVENIENCE, VIP, press, ground meals and missing personal items
- 17 (PC) CATERING ORDER, late or incorrect order given to supplier
- 18 (PB) BAGGAGE PROCESSING, sorting etc.
- 19 (PW) REDUCED MOBILITY, boarding / deboarding of passengers with reduced mobility.

Cargo and Mail

- 21 (CD) DOCUMENTATION, errors etc.
- 22 (CP) LATE POSITIONING
- 23 (CC) LATE ACCEPTANCE
- 24 (CI) INADEQUATE PACKING
- 25 (CO) OVERSALES, booking errors
- 26 (CU) LATE PREPARATION IN WAREHOUSE
- 27 (CE) DOCUMENTATION, PACKING etc (*Mail Only*)
- 28 (CL) LATE POSITIONING (*Mail Only*)
- 29 (CA) LATE ACCEPTANCE (*Mail Only*)

Aircraft and Ramp Handling

- 31 (GD) AIRCRAFT DOCUMENTATION LATE/INACCURATE, weight and balance, general declaration, pax manifest, etc.
- 32 (GL) LOADING/UNLOADING, bulky, special load, cabin load, lack of loading staff
- 33 (GE) LOADING EQUIPMENT, lack of or breakdown, e.g. container pallet loader, lack of staff
- 34 (GS) SERVICING EQUIPMENT, lack of or breakdown, lack of staff, e.g. steps
- 35 (GC) AIRCRAFT CLEANING
- 36 (GF) FUELLING/DEFUELLING, fuel supplier
- 37 (GB) CATERING, late delivery or loading
- 38 (GU) ULD, lack of or serviceability
- 39 (GT) TECHNICAL EQUIPMENT, lack of or breakdown, lack of staff, e.g. pushback

Technical and Aircraft Equipment

- 41 (TD) AIRCRAFT DEFECTS.
- 42 (TM) SCHEDULED MAINTENANCE, late release.
- 43 (TN) NON-SCHEDULED MAINTENANCE, special checks and/or additional works beyond normal maintenance schedule.
- 44 (TS) SPARES AND MAINTENANCE EQUIPMENT, lack of or breakdown.
- 45 (TA) AOG SPARES, to be carried to another station.
- 46 (TC) AIRCRAFT CHANGE, for technical reasons.
- 47 (TL) STAND-BY AIRCRAFT, lack of planned stand-by aircraft for technical reasons.
- 48 (TV) SCHEDULED CABIN CONFIGURATION/VERSION ADJUSTMENTS.

Damage to Aircraft & EDP/Automated Equipment Failure

- 51 (DF) DAMAGE DURING FLIGHT OPERATIONS, bird or lightning strike, turbulence, heavy or overweight landing, collision during taxiing
- 52 (DG) DAMAGE DURING GROUND OPERATIONS, collisions (other than during taxiing), loading/off-loading damage, contamination, towing, extreme weather conditions
- 55 (ED) DEPARTURE CONTROL
- 56 (EC) CARGO PREPARATION/DOCUMENTATION
- 57 (EF) FLIGHT PLANS
- 58 (EO) OTHER AUTOMATED SYSTEM

Flight Operations and Crewing

- 61 (FP) FLIGHT PLAN, late completion or change of, flight documentation
- 62 (FF) OPERATIONAL REQUIREMENTS, fuel, load alteration
- 63 (FT) LATE CREW BOARDING OR DEPARTURE PROCEDURES, other than connection and standby (flight deck or entire crew)

- 64 (FS) FLIGHT DECK CREW SHORTAGE, sickness, awaiting standby, flight time limitations, crew meals, valid visa, health documents, etc.
- 65 (FR) FLIGHT DECK CREW SPECIAL REQUEST, not within operational requirements
- 66 (FL) LATE CABIN CREW BOARDING OR DEPARTURE PROCEDURES, other than connection and standby
- 67 (FC) CABIN CREW SHORTAGE, sickness, awaiting standby, flight time limitations, crew meals, valid visa, health documents, etc.
- 68 (FA) CABIN CREW ERROR OR SPECIAL REQUEST, not within operational requirements
- 69 (FB) CAPTAIN REQUEST FOR SECURITY CHECK, extraordinary

Weather

- 71 (WO) DEPARTURE STATION
- 72 (WT) DESTINATION STATION
- 73 (WR) EN ROUTE OR ALTERNATE
- 75 (WI) DE-ICING OF AIRCRAFT, removal of ice and/or snow, frost prevention excluding unavailability of equipment
- 76 (WS) REMOVAL OF SNOW, ICE, WATER AND SAND FROM AIRPORT
- 77 (WG) GROUND HANDLING IMPAIRED BY ADVERSE WEATHER CONDITIONS

Air Traffic Flow Management Restrictions

- 81 (AT) ATFM due to ATC EN-ROUTE DEMAND/CAPACITY, standard demand/capacity problems
- 82 (AX) ATFM due to ATC STAFF/EQUIPMENT EN-ROUTE, reduced capacity caused by industrial action or staff shortage, equipment failure, military exercise or extraordinary demand due to capacity reduction in neighbouring area
- 83 (AE) ATFM due to RESTRICTION AT DESTINATION AIRPORT, airport and/or runway closed due to obstruction, industrial action, staff shortage, political unrest, noise abatement, night curfew, special flights
- 84 (AW) ATFM due to WEATHER AT DESTINATION

Airport and Government Authorities

- 85 (AS) MANDATORY SECURITY
- 86 (AG) IMMIGRATION, CUSTOMS, HEALTH
- 87 (AF) AIRPORT FACILITIES, parking stands, ramp congestion, lighting, buildings, gate limitations, etc.
- 88 (AD) RESTRICTIONS AT AIRPORT OF DESTINATION, airport and/or runway closed due to obstruction, industrial action, staff shortage, political unrest, noise abatement, night curfew, special flights
- 89 (AM) RESTRICTIONS AT AIRPORT OF DEPARTURE WITH OR WITHOUT ATFM RESTRICTIONS, including Air Traffic Services, start-up and pushback, airport and/or runway closed due to obstruction or weather¹⁶, industrial action, staff shortage, political unrest, noise abatement, night curfew, special flights

Reactionary

- 91 (RL) LOAD CONNECTION, awaiting load from another flight
- 92 (RT) THROUGH CHECK-IN ERROR, passenger and baggage
- 93 (RA) AIRCRAFT ROTATION, late arrival of aircraft from another flight or previous sector
- 94 (RS) CABIN CREW ROTATION, awaiting cabin crew from another flight
- 95 (RC) CREW ROTATION, awaiting crew from another flight (flight deck or entire crew)
- 96 (RO) OPERATIONS CONTROL, re-routing, diversion, consolidation, aircraft change for reasons other than technical

Miscellaneous

- 97 (MI) INDUSTRIAL ACTION WITH OWN AIRLINE
- 98 (MO) INDUSTRIAL ACTION OUTSIDE OWN AIRLINE, excluding ATS
- 99 (MX) OTHER REASON, not matching any code above

SOURCE: IATA – Airport Handling Manual (AHM730)

¹⁶ Restriction due to weather in case of ATFM regulation only, else refer to code 71 (WO)

Annex B - Standard IATA Delay Sub-Codes (AHM 731)

73 (WR)	WEATHER: EN ROUTE OR ALTERNATE Z OUTSIDE AIRCRAFT LIMITS Y OUTSIDE CREW LIMITS X ETOPS
81 (AT)	ATFM DUE TO ATC EN-ROUTE DEMAND/CAPACITY, standard demand/capacity problems Z ATC ROUTEING Y HIGH DEMAND OR CAPACITY X ENVIRONMENTAL W WEATHER G OTHER
82 (AX)	ATFM DUE TO ATC STAFF/EQUIPMENT EN-ROUTE, reduced capacity caused by industrial action or shortage or equipment failure, extraordinary demand due to capacity reduction in neighbouring area Z INDUSTRIAL ACTION Y EQUIPMENT FAILURE X STAFF SHORTAGE W MILITARY ACTIVITY V SPECIAL EVENT
83 (AE)	ATFM DUE TO RESTRICTION AT DESTINATION AIRPORT, airport and/or runway closed due to obstruction, industrial action, staff shortage, political unrest, noise abatement, night curfew, special flights Z HIGH DEMAND / ATC CAPACITY Y INDUSTRIAL ACTION X EQUIPMENT FAILURE W STAFF SHORTAGE V ACCIDENT / INCIDENT U MILITARY ACTIVITY T SPECIAL EVENT S NOISE ABATEMENT/NIGHT CURFEW P HIGH DEMAND/AIRPORT FACILITIES G OTHER
85 (AS)	MANDATORY SECURITY Z MANDATORY SECURITY CHECK Y SECURITY CONTROL CHECKPOINTS X BAGGAGE/AVI SECURITY W BAGGAGE IDENTIFICATION/UNLOADING/INTENDED V AIRPORT/TERMINAL SECURITY U AIRLINE/AIRCRAFT SECURITY CHECK T EXTRAORDINARY SECURITY EVENTS G OTHER
86 (AG)	IMMIGRATION, CUSTOMS, HEALTH Z IMMIGRATION/EMMIGRATION Y CUSTOMS X HEALTH G OTHER
87 (AF)	AIRPORT FACILITIES, parking stands, ramp congestion, lighting, buildings, gate limitations, etc. Z PARKING STANDS LIMITATION/NO PARKING STANDS AVAILABLE, EXCLUDING EARLY ARRIVALS Y RAMP CONGESTION, ABNORMAL STAND ACCESS LIMITATION (NON-ATC) X BUILDINGS W GATE LIMITATION / NO GATE AVAILABLE EXCLUDING EARLY ARRIVALS V BAGGAGE SORTING SYSTEM DOWN / SLOW U NO PUSH BACK CLEARANCE DUE TO INFRASTRUCTURE (NON-ATC) T JET BRIDGE INOPERATIVE S LACK OF CHECK IN COUNTERS R AIRFIELD ELECTRICAL SYSTEM FAILURE P PASSENGER TRANSPORT SYSTEM FAILURE N PUBLIC ADDRESS/FLIGHT INFORMATION DISPLAY SYSTEM FAILURE M INSUFFICIENT FIRE COVER J LATE POSITIONING OF AIRCRAFT (WHEN RESPONSIBILITY OF AIRPORT) I SERVICE ROAD RESTRICTION H LATE ARRIVAL OR LACK OF FOLLOW ME VEHICLE G ANY OF THE ABOVE AT THE DESTINATION AIRPORT
89 (AM)	RESTRICTIONS AT AIRPORT OF DEPARTURE WITH OR WITHOUT ATFM RESTRICTIONS, including Air Traffic Services, start-up and pushback, airport and/or runway closed due to obstruction or weather. Z ATC DEMAND/CAPACITY Y ATC INDUSTRIAL ACTION X ATC STAFFING W ATC EQUIPMENT V ATC ACCIDENT/INCIDENT U MILITARY ACTIVITY/SPECIAL FLIGHTS/VIP T ATC SPECIAL EVENT S ATC WEATHER

O ENVIRONMENTAL BENEFIT, DELAYED START-UP/PUSHBACK DUE TO USE OF REDUCED STANDARD TAXI TIMES
R ATC RESTRICTIONS DUE TO CURFEW
P ATC POLITICAL UNREST
N ATC ENVIRONMENTAL
M AIRPORT CLOSURE
L RUNWAY/TAXIWAY CLOSURE
K MISCELLANEOUS START-UP DELAY (LOCAL ATC)
J LOST FLIGHT PLAN BY ATC
I LATE PUSHBACK GIVEN DUE TO OTHER REASONS THAN INFRASTRUCTURE
H CONSTRUCTION WORK/MAINTENENCE
G OTHER

93 (RA) **AIRCRAFT ROTATION, late arrival of aircraft from another flight**
Z LATE ARRIVAL DUE DEPARTURE DELAY AT PREVIOUS STATION
Y LATE ARRIVAL DUE ENROUTE DELAY
X LATE ARRIVAL DUE DELAY AFTER LANDING
W LATE ARRIVAL DUE TO HIGH DEMAND FOR DESTINATION STATION
V LATE ARRIVAL DUE TO WEATHER AT DESTINATION
U LATE ARRIVAL DUE TO TECHNICAL REASONS

SOURCE: IATA – Airport Handling Manual (AHM731)

Annex C - Standard IATA Change Reasons (SSIM Chapter 2)

AIRS	Airspace restrictions
ARPT	Airfield restrictions
COMM	Commercial reasons demand or lack of demand
CREW	Crew shortage
DAMA	Aircraft damage
EQUI	Equipment shortage
FUEL	Fuel shortage
HDLG	Ground handling
HOLI	Holiday
INDU	Industrial dispute
OPER	Operational reasons
PERF	Aircraft performance
POLI	Political situation
POSI	Aircraft positioning
REPO	Aircraft re-positioning
ROTA	Aircraft rotation
RTNS	Return to normal schedule or reinstatement of flight status prior to issuance of ASM(s) (withdrawal of ASM change)
RUNW	Runway restrictions
TECH	Technical reasons, maintenance, etc.
WEAT	Weather conditions

SOURCE: IATA – Standard Schedules Information Manual

Annex D - IATA Service Types (SSIM Appendix C)

Service Type Code	Application	Type of Operation	Description
J	Scheduled	Passenger	Normal Service
S	Scheduled	Passenger	Shuttle Mode
U	Scheduled	Passenger	Service operated by Surface Vehicle
F	Scheduled	Cargo/Mail	Loose Loaded cargo and/or preloaded devices
V	Scheduled	Cargo/Mail	Service operated by Surface Vehicle
M	Scheduled	Cargo/Mail	Mail only
Q	Scheduled	Passenger/Cargo	Passenger/Cargo in Cabin (mixed configuration aircraft)
G	Additional Flights	Passenger	Normal Service
B	Additional Flights	Passenger	Shuttle Mode
A	Additional Flights	Cargo/Mail	Cargo/Mail
R	Additional Flights	Passenger/Cargo	Passenger/Cargo in Cabin (mixed configuration aircraft)
C	Charter	Passenger	Passenger Only
O	Charter	Special Handling	Charter requiring special handling (e.g. Migrants/immigrants flights)
H	Charter	Cargo/Mail	Cargo and/or Mail
L	Charter	Passenger/Cargo/Mail	Passenger and Cargo and/or Mail
P	Others	Not specific	Non-revenue (Positioning/Ferry/Delivery/Demo)
T	Others	Not specific	Technical test
K	Others	Not specific	Training (School/Crew check)
D	Others	Not specific	General Aviation
E	Others	Not specific	Special (FAA/Government)
W	Others	Not specific	Military
X	Others	Not specific	Technical Stop
I	Others	Not specific	State/Diplomatic/Air Ambulance
N	Others	Not specific	Business Aviation/Air taxi

SOURCE: IATA – Standard Schedules Information Manual

Annex E - Specification Update Procedures

It is necessary to periodically check this EUROCONTROL Specification for consistency with referenced material, notably ICAO SARPS and relevant Regulations. The Specification is also expected to evolve following real project and field experience, as well as advances in technology.

The main objectives of a regular review are:

- a) to improve the quality of the requirements (e.g. clarity, testability, etc.);
- b) to verify that the level of detail published is adequate;
- c) to ensure that design-oriented requirements, imposing unnecessary constraints to technical solutions, have been avoided;
- d) to ensure that advances in technology are properly reflected;
- e) to make all stakeholders incl. industry aware of the latest developments.

The update process for this EUROCONTROL Specification may be summarised as follows: Stakeholders may provide change proposals either through existing working arrangements (e.g. established working groups) or by sending a formal Change Request (CR) to the generic email address: standardisation@eurocontrol.int

The CR needs to provide following minimum elements:

- Originator information (name, Organisation, contact details)
- Specification title, number and edition date
- Page, chapter, section (subsection) where the issue appears
- Description of the issue and reason for change
- Specific change proposal text (incl. potential alternatives, if any).

Main steps towards a revised version:

- Agency (Standardisation unit) will assess each CR in coordination with content owners, classify the urgency and establish the CR impact category (major, minor or editorial).
- Agency will then prepare resolution proposal(s) and, if needed, discuss those with the originator and/or relevant working arrangements. Note: CR will be grouped into “change packages” to consider reasonable update cycles.
- Agreed changes will be integrated into a revised version “Proposed Issue” including a summarised list of changes.
- Consultation will be performed in accordance with the CR impact category identified:
 - o Major changes require full formal stakeholder consultation (PC level)
 - o Minor changes need consultation at working layers (e.g. working group or Team)
 - o Editorial changes may be implemented directly at any stage though grouped with change packages.

Note: Identified errors which may cause potential problems when implementing, may be corrected directly via separate “Corrigendum”.

The Agency will apply this process in an objective and impartial way and will consult stakeholders as needed and in line with the formal Standards Development Process.



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