EUROCONTROL Specification for Surveillance Data Exchange

ASTERIX Part 29 Category 032 Miniplan Reports to an SDPS

Edition Number : 1.2
Edition Date : 05/06/2025
Status : Released Edition
Intended for : General Public
Category : EUROCONTROL Specification
Document Identifier : EUROCONTROL-SPEC-0149-29

DOCUMENT CHARACTERISTICS

TITLE		
EUROCONTROL Specification for Surveillance Data Exchange – ASTERIX Part 29 Category 032: Miniplan Reports to an SDPS		
	Publications Reference:	SPEC-0149-29
	ISBN Number:	978-2-87497-028-3
Document Identifier	**Edition Number:**	1.2
EUROCONTROL-SPEC-0149-29	**Edition Date:**	05/06/2025

Abstract

This document specifies the contents of ASTERIX Category 032 messages used for the transmission of Miniplan reports to an SDPS.

Keywords

Data Exchange	Messages	SAC	SIC
Data Category	Data Field	Data Block	Data Item
ASTERIX	UAP	Miniplan	SDPS
ARTAS			

Contact Person(s)	Tel	Unit
Alexander Engel	+32-2-729 3355	ATD/APD/STAN

STATUS, AUDIENCE AND ACCESSIBILITY					
Status		**Intended for**		**Accessible via**	
Working Draft	☐	General Public	☑	Intranet	☐
Draft	☐	EUROCONTROL	☐	Extranet	☐
Proposed Issue	☐	Restricted	☐	Internet (www.eurocontrol.int)	☑
Released Issue	☑				

DOCUMENT APPROVAL

This document has been approved by the ASTERIX Maintenance Group (AMG).

For management approval of the complete set of ASTERIX documentation refer to Part 1.

DOCUMENT CHANGE RECORD

The following table records the complete history of the successive editions of the present document.

EDITION	DATE	REASON FOR CHANGE	SECTIONS PAGES AFFECTED
1.0	Aug. 2017	• Creation of EUROCONTROL Specification from the ARTAS Documentation (ref. ARTAS-ASTX-015-V8B3 Edition 1.00) • Wording alignment with CAT062 • Definition of I032/040 updated • Modification of I032/015 Encoding Rules • Modification of I032/018 Encoding Rules • Suppression of I032/050 maximum number of extents • Modification of I032/060 Encoding Rules	ALL
1.1	Nov. 2020	• Data Item I032/480: clarification added on range	5.2.18
1.2	June 2025	• Reference to Part 1 updated • “Old” Table 1 removed (List of Data Items) • Encoding Rules replaced by reference to “New” Table 1 • Invalid values added to I032/035 • FAMILY = 2 added to I032/035 • Editorial update in I032/050 • Editorial update in I032/420 • Editorial update in I032/460	2.2 5.1 All Data Items 5.2.6 5.2.6 5.2.8 5.2.12 5.2.17

Publications
EUROCONTROL Headquarters
96 Rue de la Fusée
B-1130 BRUSSELS

Tel: +32 (0)2 729 3355
E-mail: publications@eurocontrol.int

TABLE OF CONTENTS

DOCUMENT CHARACTERISTICS **2**

DOCUMENT APPROVAL **3**

DOCUMENT CHANGE RECORD **4**

1 INTRODUCTION **7**
1.1 Scope **7**

2 References **8**
2.1 General **8**
2.2 Reference Documents **8**

3 Definitions, acronyms and abbreviations **9**
3.1 Definitions **9**
3.2 Acronyms and Abbreviations **10**

4 GENERAL PRINCIPLES **11**
4.1 General **11**
4.2 Time Management **11**
4.3 Unused Bits in Data Items **11**
4.4 User Application Profile and Data Blocks **12**
4.5 Composition of reports **12**

5 LAYOUT OF REPORTS **13**
5.1 Standard Data Items **13**
5.2 Description of Standard Data Items **14**
5.2.1 Data Item I032/010, Server Identification Tag 14
5.2.2 Data Item I032/015, User Number 15
5.2.3 Data Item I032/018, Data Source Identification Tag 16
5.2.5 Data Item I032/020, Time of ASTERIX Report Generation 17
5.2.6 Data Item I032/035, Type of Message 18
5.2.7 Data Item I032/040, Track Number 20
5.2.8 Data Item I032/050, Composed Track Number 21
5.2.9 Data Item I032/060, Track Mode 3/A 22
5.2.10 Data Item I032/400, Callsign 23
5.2.11 Data Item I032/410, Plan Number 24
5.2.12 Data Item I032/420, Flight Category 25

5.2.13 Data Item I032/430, Type of Aircraft....26
5.2.14 Data Item I032/435, Wake Turbulence Category....27
5.2.15 Data Item I032/440, Departure Aerodrome....28
5.2.16 Data Item I032/450, Destination Aerodrome....29
5.2.17 Data Item I032/460 Allocated SSR Codes....30
5.2.18 Data Item I032/480, Current Cleared Flight Level....31
5.2.19 Data Item I032/490, Current Control Position....32
5.2.20 Data Item I032/500, Supplementary Flight Data....33
5.3 User Application Profile for Category 032....41

1 INTRODUCTION

1.1 Scope

Originally, ASTERIX Category 032 was specified for the use by ARTAS in order to allow the provision of flight plan information from remote systems (i.e. FPPS) in the form of “Miniplans” to enhance the track information available to ARTAS Users.

Overtime, CAT032 became a de facto standard which is now used by many SDPS (i.e. no longer limited to ARTAS).

During AUG/CCB#50, ARTAS User Group decided to support the transfer of CAT032 to the ASTERIX Maintenance Group (AMG) for standardisation.

This document is based on the ARTAS specific CAT032 in order to maintain backwards compatibility to existing systems.

This document describes the structure for the transmission of Miniplan reports. Miniplan reports may be sent from an FPPS to an SDPS or forwarded from an SDPS to another SDPS (in case of co-operating SDPSs).

This document defines the data out of Category 032.

2 REFERENCES

2.1 General

The following Documents and Standards contain provisions which, through references in this text, constitute provisions of this EUROCONTROL Standard Document.

At the time of publication of this EUROCONTROL Standard Document, the editions indicated for the referenced documents and standards were valid.

Any revision of the referenced ICAO Documents shall be immediately taken into account to revise this EUROCONTROL Standard Document.

Revisions of the other referenced documents shall not form part of the provisions of this EUROCONTROL Standard Document until they are formally reviewed and incorporated into this EUROCONTROL Standard Document.

In the case of a conflict between the requirements of this EUROCONTROL Standard Document and the contents of the other referenced documents, this EUROCONTROL Standard Document shall take precedence.

NOTE

The composition of ASTERIX records of Category 032 **shall** follow the rules as described in Edition 2.1 (or earlier) of Part 1 of the ASTERIX documentation, chapter 4.3.2.5. to ensure backwards compatibility with existing implementations. This means that the blocking mechanism is permitted to be used on ASTERIX category 032.

2.2 Reference Documents

1. EUROCONTROL Specification SPEC-0149, Edition 3.1, 23 November 2021 “EUROCONTROL Specification for Surveillance Data Exchange – Part 1 All Purpose Structured EUROCONTROL Surveillance Information Exchange – ASTERIX”.
2. ICAO Document 4444
3. ICAO Annex 5
4. ICAO Annex 14
5. ICAO Doc. 7910 – Location Indicators

3 DEFINITIONS, ACRONYMS AND ABBREVIATIONS

3.1 Definitions

For the purposes of this EUROCONTROL Document, the following definitions shall apply:

3.1.1	**Catalogue of Data Items:**	List of all the possible Data Items of each Data Category describing the Data Items by their reference, structure, size and units (where applicable).
3.1.2	**Data Block:**	Unit of information seen by the application as a discrete entity by its contents. A Data Block contains one or more Record(s) containing data of the same category.
3.1.3	**Data Category:**	Classification of the data in order to permit inter alia an easy identification.
3.1.4	**Data Field:**	Physical implementation for the purpose of communication of a Data Item, it is associated with a unique Field Reference Number and is the smallest unit of transmitted information.
3.1.5	**Data Item:**	The smallest unit of information in each Data Category.
3.1.6	**Record:**	A collection of transmitted Data Fields of the same category preceded by a Field Specification field, signalling the presence/absence of the various Data Fields.
3.1.7	**User Application Profile:**	The mechanism for assigning Data Items to Data Fields, and containing all necessary information which needs to be standardised for the successful encoding and decoding of the reports.
3.1.8	**Version**	In the scope of this document, “version” refers to the MOPS version as defined in data item I032/210, bits 6/4 Version Number.

3.2 Acronyms and Abbreviations

For the purposes of this EUROCONTROL Document, the following shall apply:

°	Degree (angle)
AMG	ASTERIX Maintenance Group
ASTERIX	**A**ll Purpose **ST**ructured **E**urocontrol su**R**veillance **I**nformation E**X**change
AUG	ARTAS User Group
CAT	Data Category
CCB	Change Control Board
EATM	European Air Traffic Management
FPPS	Flight Plan Processing System
FRN	Field Reference Number
FSPEC	Field Specification
FX	Field Extension Indicator
ICAO	International Civil Aviation Organization
ICD	Interface Control Document
LEN	Length Indicator
LSB	Least Significant Bit
RE	Reserved Expansion Indicator
REP	Field Repetition Indicator
s	second, unit of time
SAC	System Area Code
SDPS	Surveillance Data Processing System
SIC	System Identification Code
SP	Special Purpose Indicator
SSR	Secondary Surveillance Radar
SUC	Special Use Code
UAP	User Application Profile (see Definitions)
UTC	Co-ordinated Universal Time
WGS-84	World Geodetic System 84

4 GENERAL PRINCIPLES

4.1 General

This document describes the application of ASTERIX to the transmission of Miniplan information to an SDPS.

4.2 Time Management

The time-stamping shall comply with ICAO Annex 5 [Ref. 3].

4.3 Unused Bits in Data Items

Decoders of ASTERIX data shall never assume and rely on specific settings of spare or unused Bits. However in order to improve the readability of binary dumps of ASTERIX records, it is recommended to set all Spare bits to zero.

4.4 User Application Profile and Data Blocks

A single User Application Profile (UAP) is defined and shall be used for Category 032 reports.

The composition of ASTERIX records of Category 032 shall follow the rules as described in Edition 2.1 (or earlier) of Part 1 of the ASTERIX documentation, chapter 4.3.2.5. This means that for category 032 records, blocking is permitted.

Data Blocks shall have the following layout.

CAT = 032	**LEN**	**FSPEC**	Items of the first record		**FSPEC**	Items of the last record

where:

- Data Category (CAT) = 032, is a one-octet field indicating that the Data Block contains Miniplan reports;
- Length Indicator (LEN) is a two-octet field indicating the total length in octets of the Data Block, including the CAT and LEN fields;
- FSPEC is the Field Specification.

4.5 Composition of reports

Reports shall be composed of Data Items assembled in the order defined by the Field Reference Number (FRN) in the associated UAP.

When sent, items shall always be transmitted in a Record with the corresponding FSPEC Bits set to one.

5 LAYOUT OF REPORTS

5.1 Standard Data Items

The standardised Data Items which shall be used for the transmission of Miniplan reports are described in the following pages.

5.2 Description of Standard Data Items

5.2.1 Data Item I032/010, Server Identification Tag

Definition : Identification of the Server of track information.
Format : Two-octet fixed length Data Item.
Structure:

Octet no. 1								Octet no. 2							
16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
SAC								SIC							

bits-16/9	(SAC)	System Area Code
bits 8/1	(SIC)	System Identification Code

Encoding Rule : See Table 1.

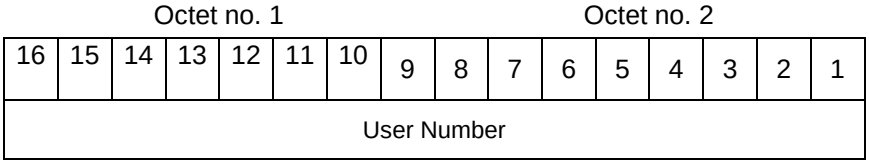
NOTE - The up-to-date list of SACs is published on the EUROCONTROL ASTERIX Web Site (http://www.eurocontrol.int/services/system-area-code-list).

NOTE - In case of message originating from an FPPS, the Server Identification Tag corresponds to the SDPS unit receiving the Miniplan.

NOTE - In case of message originating from a SDPS, the Server Identification Tag corresponds to the SDPS unit sending the Miniplan.

5.2.2 Data Item I032/015, User Number

Definition : Identification of the User of the track data.
Format : Two-octet fixed length Data Item.
Format :



bits-16/1 (User Number) User Number
Range: 0-65535

Encoding Rule : See Table 1.

NOTE - The User numbers are predefined in the User registration data base of the SDPS Unit to which the User wants to connect.

NOTE - In case of message originating from an FPPS, the User Number corresponds to the FPPS one.

NOTE - In case of message originating from an SDPS, the User Number corresponds to the SDPS unit receiving the Miniplan.

5.2.3 Data Item I032/018, Data Source Identification Tag

Definition : Identification of the data source (FPPS system) from which the information contained in the message was initially originated.

Format : Two-octet fixed length Data Item.

Structure:

Octet no. 1								Octet no. 2							
16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
SAC								SIC							

bits-16/9 (SAC) System Area Code

bits 8/1 (SIC) System Identification Code

Encoding Rule : See Table 1.

NOTE - The up-to-date list of SACs is published on the EUROCONTROL ASTERIX Web Site (http://www.eurocontrol.int/services/system-area-code-list).

5.2.5 Data Item I032/020, Time of ASTERIX Report Generation

Definition : Time of the generation of the ASTERIX category 032 report in the form of elapsed time since last midnight, expressed as UTC.

Format : Three-Octet fixed length data item.

Structure:

Octet no. 1

24	23	22	21	20	19	18	17
Time							

Octet no. 2 Octet no. 3

16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Of ASTERIX Report Generation															LSB

bit-1 (LSB) = 2^{-7} s = 1/128 s

Encoding Rule : See Table 1.

NOTE - The Time of ASTERIX Report Generation is reset to zero at every midnight.

NOTE - This time is determined at an application level (e.g. time at which a message is filled), and not at the communication level (i.e. not the time at which the data-block is sent).

5.2.6 Data Item I032/035, Type of Message

Definition : This data item allows for a more convenient handling of the message at the receiver side by further defining the type of transaction.

Format : One-octet fixed length data item.

Structure:

Octet no. 1

8	7	6	5	4	3	2	1
FAMILY				NATURE			

bits 8/5 (FAMILY) to which the message belongs (0 to 15),

bits 4/1 (NATURE) of the message (within its FAMILY) (0 to 15).

(FAMILY) = 0 : Invalid ASTERIX value
1 : information sent by an FPPS
2 : SUC information sent by an FDPS
3-15: Reserved for Future Use

For FAMILY = 1, NATURE has the following values:
(NATURE) = 0 : Invalid ASTERIX value
1 : Flight Plan to track initial correlation
2 : Miniplan update
3 : End of correlation
4 : Miniplan Cancellation
5 : Retained Miniplan
6-15: Reserved for Future Use

For FAMILY = 2, NATURE has the following values:
(NATURE) = 0 : Invalid ASTERIX value
1 : Initial SUC correlation
2 : End of SUC correlation
3 : Change of SUC correlation information
4-15: Reserved for Future Use

NOTE - For FAMILIY = 2, the SUC correlation text **shall** be provided in I032/REF/SCT which is why the REF is mandatory in Table 1 below for message types $21 and $23.

Encoding Rule : See Table 1.

NOTE - The composition of the messages is described in the following table.

Table 1: Encoding Rules for the different message types. M stands for mandatory, O for optional, X for never present.

Data Item Reference Number	**Description**	Flight Plan to track Initial Correlation ($11), Miniplan Update ($12)	End of correlation ($13), Miniplan cancellation ($14), Retained Miniplan ($15), End of SUC correlation ($22)	Initial SUC correlation ($21), Change of SUC correlation text ($23)
I032/010	Server Identification Tag	M	M	M
I032/015	User Number	O	O	O
I032/018	Data Source Identification Tag	M	M	M
I032/020	Time of ASTERIX Report Generation	M	M	M
I032/035	Type of Message	M	M	M
I032/040	Track Number	M from FPPS X from SDPS	M from FPPS X from SDPS	M from FPPS X from SDPS
I032/050	Composed Track Number	M from SDPS X from FPPS	M from SDPS X from FPPS	M from SDPS X from FPPS
I032/060	Track Mode 3/A	O	X	M
I032/400	Callsign	O	X	X
I032/410	Plan Number	O	X	X
I032/420	Flight Category	O	X	X
I032/430	Type of Aircraft	O	X	X
I032/435	Wake Turbulence Category	O	X	X
I032/440	Departure Aerodrome	O	X	X
I032/450	Destination Aerodrome	O	X	X
I032/460	Allocated SSR Codes	O	X	X
I032/480	Current Cleared Flight Level	O	X	X
I032/490	Current Control Position	O	X	X
I032/500	Supplementary Flight Data	O	X	X
I032/REF	Reserved Expansion Field	O	O	M

5.2.7 Data Item I032/040, Track Number

Definition: Identification of a track (track number)

Format: Two-octet fixed length data item

Structure:

Octet no. 1								Octet no. 2							
16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Track Number															

bits-16/1 (Track Number) 0 - 65535

Encoding Rule : See Table 1.

5.2.8 Data Item I032/050, Composed Track Number

Definition: Identification of a system track.

Format: Extendible data item, comprising a first part of three octets (Master Track Number), followed by three-octet extensions (Slave Tracks Numbers).

Structure:

Octet no. 1

24	23	22	21	20	19	18	17
System Unit Identification							

Octet no. 2 Octet no. 3

16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
System Track Number															FX

bits-24/17 (System Unit Identification) = 0 to 255

bits-26/2 (System Track Number) = 0 to 32767

bit-1 (FX) = 0 end of data item
= 1 extension into next extension

Encoding Rule : See Table 1.

NOTE - Each Track Number (i.e. either a Master or a Slave Track Number) is composed of a System Unit Identification (i.e. the identification of the SDPS unit processing the data) together with the relevant System Track Number (i.e. the number of the track local to the SDPS Unit in question).

NOTE - The Composed Track Number is used by co-operating SDPS units to uniquely identify a track. It consists of the unit identifier and system track number for each unit involved in the co-operation. The first unit identification identifies the unit that is responsible for the track amalgamation.

NOTE - The Master Track Number and the possible extensions (Slave Tracks Numbers) are identically composed.

5.2.9 Data Item I032/060, Track Mode 3/A

Definition: Mode 3/A code associated to the track

Format: Two-octet fixed length data item

Structure:

Octet no. 1									Octet no. 2						
16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
0	0	0	0	A4	A2	A1	B4	B2	B1	C4	C2	C1	D4	D2	D1

bits-16/13 (Spare) Spare bits, set to 0

bits-12/1 (Mode 3/A Code) 4 digits, octal representation

Encoding Rule : See Table 1.

5.2.10 Data Item I032/400, Callsign

Definition : Callsign (in 7 characters) of an aircraft (provided in the Miniplan).
Format : Seven-Octet fixed length data item.
Structure:

Octet no. 1

56	55	54	53	52	51	50	49
Character 1							

Octet no. 2 Octet no. 3

48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33
Character 2								Character 3							

Octet no. 4 Octet no. 5

32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
Character 4								Character 5							

Octet no. 6 Octet no. 7

16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Character 6								Character 7							

Encoding Rule : See Table 1.

NOTE - Each one of the seven octets contains an ASCII Character. The Callsign is always left adjusted. It contains up to seven upper-case alphanumeric characters, the remaining character positions (if any) are padded with space characters.

5.2.11 Data Item I032/410, Plan Number

Definition: The Plan Number is an integer value representing a unique reference to a Flight-plan record within a particular FPPS.

Format: Two-Octet fixed length data item

Structure:

Octet no. 1															Octet no. 2
16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Plan Number															

bits-16/1 (Plan Number) 0 to 65535

Encoding Rule : See Table 1.

5.2.12 Data Item I032/420, Flight Category

Definition : Flight Category.
Format : One-Octet fixed length data item.
Structure:

Octet no. 1

8	7	6	5	4	3	2	1
OAT/GAT		FR1/FR2		SP3	SP2	SP1	0

bits 8/7	(GAT/OAT)	00	Unknown
		01	General Air Traffic
		10	Operational Air Traffic
		11	Not applicable
bits 6/5	(FR1/FR2)	00	Instrument Flight Rules
		01	Visual Flight rules
		10	Not applicable
		11	Controlled Visual Flight Rules
bits 4/2	(SP3/SP2/SP1)	These three bits allow for the definition of up to 7 sub-categories within the main categories.	
bit 1	(Spare)	Spare bit set to zero	

Encoding Rule : See Table 1.

NOTE - The definition of the sub-categories is system dependent and shall be descried in the system ICD.

5.2.13 Data Item I032/430, Type of Aircraft

Definition : Type of Aircraft.
Format : Four-Octet fixed length data item.
Structure:

Octet no. 1								Octet no. 2							
32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
Character 1								Character 2							

Octet no. 3								Octet no. 4							
16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Character 3								Character 4							

Encoding Rule : See Table 1.

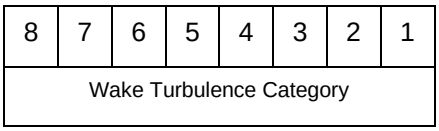
NOTE - Each one of the four octets composing the type of aircraft contains an ASCII Character (upper-case alphabetic characters with trailing spaces).

NOTE - The types of aircraft are defined in the ICAO Document 4444.

5.2.14 Data Item I032/435, Wake Turbulence Category

Definition : Wake turbulence category of an aircraft.
Format : One-Octet fixed length data item.
Structure:

Octet no. 1



bits-8/1 (Wake Turbulence Category)
ASCII Character representing the following values:

1001100 = L: Light
1001101 = M: Medium
1001000 = H: Heavy
1001010 = J: Super

Encoding Rule : See Table 1.

5.2.15 Data Item I032/440, Departure Aerodrome

Definition : Departure Aerodrome.
Format : Four-Octets fixed length data item.
Structure:

Octet no. 1								Octet no. 2							
32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
Character 1								Character 2							

Octet no. 3								Octet no. 4							
16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Character 3								Character 4							

Encoding Rule : See Table 1.

NOTE - Each octet contains one ASCII Character (Upper Case Alphabetic)
NOTE - The Aerodrome Names are indicated in the ICAO Location Indicators book.

5.2.16 Data Item I032/450, Destination Aerodrome

Definition : Destination Aerodrome.
Format : Four-Octets fixed length data item.
Structure:

Octet no. 1								Octet no. 2							
32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
Character 1								Character 2							

Octet no. 3								Octet no. 4							
16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Character 3								Character 4							

Encoding Rule : See Table 1.

NOTE - Each octet contains one ASCII Character (Upper Case Alphabetic).

NOTE - The Aerodrome Names are indicated in the ICAO Location Indicators book [Ref. 5].

5.2.17 Data Item I032/460 Allocated SSR Codes

Definition : List of successive SSR Codes allocated to a flight.
Format : Repetitive data item, starting with a One-Octet Repetition Factor, followed by Two-Octets (Mode 3/A codes) as necessary.
Structure:

Octet no. 1

24	23	22	21	20	19	18	17
REP							

Octet no. 2 Octet no. 3

16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
0	0	0	0	OCT1			OCT2			OCT3			OCT4		

bits-24/17	(REP)	Repetition Factor
bits-16/13	(Spare)	Spare bits set to zero
bits-12/1	(SSR Code)	Mode 3/A Code in octal representation
bits-12/10	(OCT1)	1st Octal Digit
bits-9/7	(OCT2)	2nd Octal Digit
bits-6/4	(OCT3)	3rd Octal Digit
bits-3/1	(OCT4)	4th Octal Digit

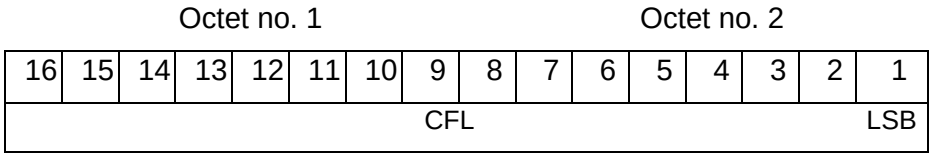
Encoding Rule : See Table 1.

5.2.18 Data Item I032/480, Current Cleared Flight Level

Definition: Current Cleared Flight Level

Format: Two-Octets fixed length Data Item.

Structure:



bits-16/1	(CFL)	Current Cleared Flight Level
bit-1	(LSB)	1/4FL = 25 feet
		Range: 0 ≤ CFL ≤ 1500 FL

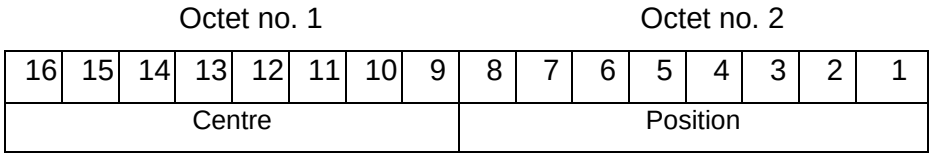
Encoding Rule : See Table 1.

5.2.19 Data Item I032/490, Current Control Position

Definition: Identification of the Control Position currently controlling a flight.

Format: Two-Octets fixed length Data Item.

Structure:



bits-16/9	(Centre)	8-bit Centre Identification Code
bits-8/1	(Position)	8-bit Control Position Identification Code

Encoding Rule : See Table 1.

NOTE - The Centre and Control Position Identification Codes are implementation specific and have to be agreed upon between communication partners.

5.2.20 Data Item I032/500, Supplementary Flight Data

Definition : Flight related data provided by ground based systems.
Format : Compound Data Item, comprising a primary subfield of up to Two Octets, followed by the indicated subfields.

Structure of Primary Subfield:

Octet no. 1

16	15	14	13	12	11	10	9
IFI	RVP	RDS	TOD	AST	STS	STD	FX

Octet no. 2

8	7	6	5	4	3	2	1
STA	0	0	0	0	0	0	FX

bit-16 (IFI) IFPS FLIGHT ID
= 0 Absence of Subfield #1
= 1 Presence of Subfield #1

bit-15 (RVP) RVSM & Flight Priority
= 0 Absence of Subfield #2
= 1 Presence of Subfield #2

bit-14 (RDS) Runway Designation
= 0 Absence of Subfield #3
= 1 Presence of Subfield #3

bit-13 (TOD) Time of Departure / Arrival
= 0 Absence of Subfield #4
= 1 Presence of Subfield #4

bit-12 (AST) Aircraft Stand
= 0 Absence of Subfield #5
= 1 Presence of Subfield #5

bit-11 (STS) Stand Status
= 0 Absence of Subfield #6
= 1 Presence of Subfield #6

bit-10 (STD) Standard Instrument Departure
= 0 Absence of Subfield #7
= 1 Presence of Subfield #7

bit-9 FX Extension indicator
= 0 no extension
= 1 extension

bit-8 (STA) Standard Instrument Arrival
= 0 Absence of Subfield #8
= 1 Presence of Subfield #8

bits-7/2 (Spare) Spare bits set to zero

bit-1 FX Extension indicator
= 0 no extension
= 1 extension

Structure of I032/500 - Subfield # 1:
IFPS Flight ID

Octet no. 1 Octet no. 2

32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
TYP		0	0	0	NBR										

Octet no. 3 Octet no. 4

16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

bits-32/31 (TYP) = 00 Plan Number
= 01 Unit 1 internal flight number
= 10 Unit 2 internal flight number
= 11 Unit 3 internal flight number
bits-30/28 (Spare) Spare bits set to zero
bits-27/1 (NBR) Number from 0 to 99 999 999

Structure of I032/500 - Subfield # 2:
RVSM & Flight Priority

Octet no. 1

8	7	6	5	4	3	2	1
0	0	0	0	0	RVSM		HPR

bits-8/4	(Spare)	Spare bits set to zero	
bits-3/2	(RVSM)	= 00	Unknown
		= 01	Approved
		= 10	Exempt
		= 11	Not approved
bit-1	(HPR)	= 0	Normal Priority Flight
		= 1	High Priority Flight

Structure of I032/500 - Subfield # 3:
Runway Designator

Octet no. 1 Octet no. 2

24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9
NU1								NU2							

Octet no. 3

8	7	6	5	4	3	2	1
LTR							

bits-24/17	(NU1)	First Number
bits-16/9	(NU2)	Second Number
bits-8/1	(LTR)	Letter

NOTE - NU1, NU2 and LTR each contain an ASCII character (upper case alphabetic).

NOTE - For details refer to ICAO Annex 14 Chapter 5 [Ref. 4].

Structure of I032/500 - Subfield # 4:
Time of Departure / Arrival

Octet no. 1

40	39	38	37	36	35	34	33
REP							

Octet no. 2 Octet no. 3

32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
TYP					DAY		0	0	0	0	HOR				

Octet no. 4 Octet no. 5

16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
0	0	MIN						AVS	0	SEC					

bits-40/33	(REP)	Repetition Factor
bits-32/28	(TYP)	= 0 Scheduled Off-Block Time = 1 Estimated Off-Block Time = 2 Estimated Take-Off Time = 3 Actual Off-Block Time = 4 Predicted Time at Runway Hold = 5 Actual Time at Runway Hold = 6 Actual Line-Up Time = 7 Actual Take-Off Time = 8 Estimated Time of Arrival = 9 Predicted Landing Time = 10 Actual Landing Time = 11 Actual Time off Runway = 12 Predicted Time to Gate = 13 Actual On-Block Time
bits-27/26	(DAY)	= 00 Today = 01 Yesterday = 10 Tomorrow = 11 Invalid
bits-25/22	(Spare)	Spare bits set to zero
bits-21/17	(HOR)	Hours, from 0 to 23
bits-16/15	(Spare)	Spare bits set to zero
bits-14/9	(MIN)	Minutes, from 0 to 59

bit-8	(AVS)	= 0 Seconds available = 1 Seconds not available
bit-7	(Spare)	Spare bit, set to zero
bits-6/1	(SEC)	Seconds, from 0 to 59

NOTE - Estimated times are derived from flight plan processing systems. Predicted times are derived by the fusion system based on surveillance data. For definitions see [Ref.4]

Structure of I032/500 - Subfield # 5:
Aircraft Stand

Octet no. 1								Octet no. 2							
48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33
Character 1								Character 2							

Octet no. 3								Octet no. 4							
32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
Character 3								Character 4							

Octet no. 5								Octet no. 6							
16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Character 5								Character 6							

NOTE - Each one of the six Octets contains an ASCII Character. The Aircraft Stand identification is always left adjusted. It contains up to six upper-case alphanumeric characters, the remaining character positions (if any) are padded with space characters.

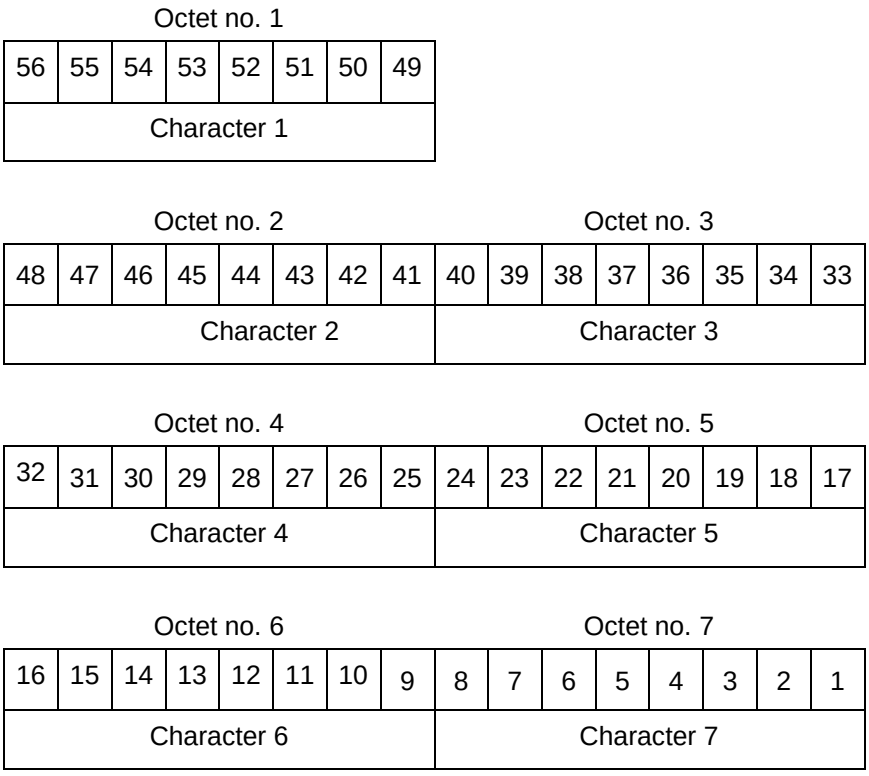
Structure of I032/500 - Subfield # 6:
Stand Status

Octet no. 1

8	7	6	5	4	3	2	1
EMP		AVL		0	0	0	0

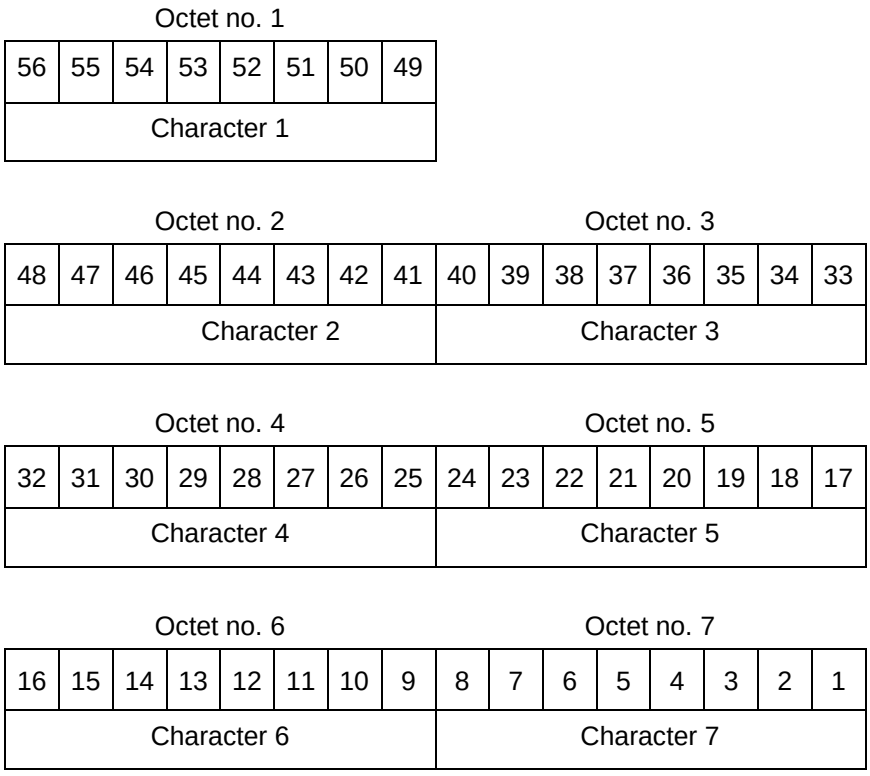
bits-8/7	(EMP)	= 00	Empty
		= 01	Occupied
		= 10	Unknown
		= 11	Invalid
bits-6/5	(AVL)	= 00	Available
		= 01	Not available
		= 10	Unknown
		= 11	Invalid
Bits-4/1	(Spare)	Spare bits set to zero	

Structure of I032/500 - Subfield # 7:
Standard Instrument Departure (SID)



NOTE - Each one of the seven Octets contains an ASCII Character. The SID is always left adjusted. It contains up to seven alphanumeric characters, the remaining character positions (if any) are padded with space characters.

Structure of I032/500 - Subfield # 8:
Standard Arrival Route (STAR)



NOTE - Each one of the seven Octets contains an ASCII Character. The STAR is always left adjusted. It contains up to seven alphanumeric characters, the remaining character positions (if any) are padded with space characters.

Encoding Rule : See Table 1.

5.3 User Application Profile for Category 032

The following User Application Profile shall be used for the transmission of Miniplans.

Table 2 – Miniplan Reports UAP

FRN	Data Item	Information	Length
1	**I032/010**	Server Identification Tag	**2**
2	**I032/015**	User Number	**2**
3	**I032/018**	Data Source Identification Tag	**2**
4	**I032/035**	Type of Message	**1**
5	**I032/020**	Time of ASTERIX Report Generation	**3**
6	**I032/040**	Track Number	**2**
7	**I032/050**	Composed Track Number	**3+(nx3)**
FX	**-**	Field extension indicator	**-**
8	**I032/060**	Track Mode 3/A	**2**
9	**I032/400**	Callsign	**7**
10	**I032/410**	Plan Number	**2**
11	**I032/420**	Flight Category	**1**
12	**I032/440**	Departure Airport	**4**
13	**I032/450**	Destination Airport	**4**
14	**I032/480**	Current Cleared Flight Level	**2**
FX	**-**	Field extension indicator	**-**
15	**I032/490**	Current Control Position	**2**
16	**I032/430**	Type of Aircraft	**4**
17	**I032/435**	Wake Turbulence Category	**1**
18	**I032/460**	Allocated SSR Codes	**1≤n≤5**
19	**I032/500**	Supplementary Flight Data	**1+**
20	**-**	Unused	**-**
21	**I032/RE**	Reserved Expansion Field	**1+**
FX	**-**	Field extension indicator	**-**

In the above table

- the first column indicates the Field Reference Number (FRN) associated to each Data Item used in the UAP;
- the fourth column gives the format and the length of each item, a stand-alone figure indicates the octet-count of a fixed-length Data Item, 1+ indicates a variable-length Data Item comprising a first part of 1 octet followed by n-octets extensions as necessary.

SUPPORTING
EUROPEAN
AVIATION

© EUROCONTROL - June 202

This document is published by EUROCONTROL for information purposes. It may be copied in whole or in part, provided that EUROCONTROL is mentioned as the source and it is not used for commercial purposes (i.e. for financial gain). The information in this document may not be modified without prior written permission from EUROCONTROL.

www.eurocontrol.int