Asterix category 032 - Miniplan Reports to an SDPS

category: 032

edition: 1.2

date: 2025-06-05

Preamble

Surveillance data exchange.

Description of standard data items

I032/010 - Server Identification Tag

definition: Identification of the Server of track information.

Group

I032/010/SAC - System Area Code

Element
bit size: 8
Raw Content

I032/010/SIC - System Identification Code

Element
bit size: 8
Raw Content

Notes:

1. The up-to-date list of SACs is published on the EUROCONTROL ASTERIX Web Site (http://www.eurocontrol.int/services/system-area-code-list).
2. In case of message originating from an FPPS, the Server Identification Tag corresponds to the SDPS unit receiving the Miniplan.
3. In case of message originating from a SDPS, the Server Identification Tag corresponds to the SDPS unit sending the Miniplan.

I032/015 - User Number

definition: Identification of the User of the track data.

Element
bit size: 16
Unsigned integer

Notes:

1. The User numbers are predefined in the User registration data base of the SDPS Unit to which the User wants to connect.
2. In case of message originating from an FPPS, the User Number corresponds to the FPPS one.
3. In case of message originating from an SDPS, the User Number corresponds to the SDPS unit receiving the Miniplan.

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.

Group

I032/018/SAC - System Area Code

Element
bit size: 8
Raw Content

I032/018/SIC - System Identification Code

Element
bit size: 8
Raw Content

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).

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.

Element
bit size: 24
Unsigned quantity
LSB = $1/2^7$ s $\approx 7.8125e-3$ s
unit: "s"

Notes:

1. The Time of ASTERIX Report Generation is reset to zero at every midnight.
2. 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).

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.

Group

I032/035/FAMILY

Element
bit size: 4
Values:

0: Invalid ASTERIX value
1: Information sent by an FPPS
2: SUC information sent by an FDPS

I032/035/NATURE

Element
bit size: 4
Depending on: (`035/FAMILY`)

(1): Values:

0: Invalid ASTERIX value
1: Flight Plan to track initial correlation
2: Miniplan update

3: End of correlation
4: Miniplan Cancellation
5: Retained Miniplan

(2): Values:

0: Invalid ASTERIX value
1: Initial SUC correlation
2: End of SUC correlation
3: Change of SUC correlation information

Default:

Raw Content

Notes:

1. For FAMILY = 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.
2. The composition of the messages is described in the following table. :

Data Ref Num	Description	FPL to track Initial Correlation ($11), Miniplan update ($12)	End of correlation ($13), Miniplan cancellation ($14), Retained Miniplan ($15)	Initial / Change of
I032/010	Server id ...	M	M	M
I032/015	User Number	O	O	O
I032/018	Data Source ...	M	M	M
I032/020	Time of ...	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 F X from FDPS
I032/050	Composed trknum...	M from SDPS X from FPPS	M from SDPS X from FDPS	M fro X from FDPS
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 ...	O	X	X
I032/440	Departure ...	O	X	X
I032/450	Destination ...	O	X	X
I032/460	Allocated SSR Codes	O	X	X
I032/480	Current Cleared FL...	O	X	X
I032/490	Current Control Pos...	O	X	X
I032/500	Supplementary FD...	O	X	X
I032/REF	Reserved Expansion...	O	O	M

I032/040 - Track Number

definition: Identification of a track (track number)

Element
bit size: 16
Unsigned integer

I032/050 - Composed Track Number

definition: Identification of a system track.

Extended

I032/050/SUI - System Unit Identification

Element
bit size: 8
Unsigned integer

I032/050/STN - System Track Number

Element
bit size: 15
Unsigned integer

(FX) - extension bit

Notes:

1. 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) together with the relevant System Track Number (i.e. the number of the track local to the SDPS Unit in question).
2. 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.
3. The Master Track Number and the possible extensions (Slave Tracks Numbers) are identically composed.

I032/060 - Track Mode 3/A

definition: Mode 3/A code associated to the track

Group

Spare bits: 4

I032/060/MODE3A - (Mode 3/A Code) 4 Digits, Octal Representation

Element
bit size: 12
Octal string (3-bits per char)

I032/400 - Callsign

definition: Callsign (in 7 characters) of an aircraft (provided in the Miniplan).

Element
bit size: 56
Ascii string (8-bits per char)

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.

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.

Element
bit size: 16
Unsigned integer

I032/420 - Flight Category

definition: Flight Category.

Group

I032/420/GATOAT

Element
bit size: 2
Values:

- **0:** Unknown
- **1:** General Air Traffic
- **2:** Operational Air Traffic
- **3:** Not applicable

I032/420/FR1FR2

Element
bit size: 2
Values:

- **0:** Instrument Flight Rules
- **1:** Visual Flight rules
- **2:** Not applicable
- **3:** Controlled Visual Flight Rules

I032/420/SP3

Element
bit size: 1
Raw Content

I032/420/SP2

Element
bit size: 1
Raw Content

I032/420/SP1

Element
bit size: 1
Raw Content

Spare bits: 1

Note:

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

I032/430 - Type of Aircraft

definition: Type of Aircraft.

Element
bit size: 32
Ascii string (8-bits per char)

Notes:

1. Each one of the four octets composing the type of aircraft contains an ASCII Character (upper-case alphabetic characters with trailing spaces).
2. The types of aircraft are defined in the ICAO Document 4444.

I032/435 - Wake Turbulence Category

definition: Wake turbulence category of an aircraft.

Element
bit size: 8
Values:

76: Light
77: Medium
72: Heavy
74: Super

I032/440 - Departure Aerodrome

definition: Departure Aerodrome

Element
bit size: 32
Ascii string (8-bits per char)

Notes:

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

I032/450 - Destination Aerodrome

definition: Departure Aerodrome

Element
bit size: 32
Ascii string (8-bits per char)

Notes:

1. Each octet contains one ASCII Character (Upper Case Alphabetic).
2. The Aerodrome Names are indicated in the ICAO Location Indicators book [Ref. 5].

I032/460 - Allocated SSR Codes

definition: List of successive SSR Codes allocated to a flight.

Repetitive

Regular, 1 byte(s) REP field size.

Group

Spare bits: 4

I032/460/OCT1 - 1st Octal Digit

Element
bit size: 3
Raw Content

I032/460/OCT2 - 2nd Octal Digit

Element
bit size: 3
Raw Content

I032/460/OCT3 - 3rd Octal Digit

Element
bit size: 3
Raw Content

I032/460/OCT4 - 4th Octal Digit

Element
bit size: 3
Raw Content

I032/480 - Current Cleared Flight Level

definition: Current Cleared Flight Level

Element
bit size: 16
Unsigned quantity
LSB = $1/2^2$ FL ≈ 0.25 FL
unit: ”FL”
>= 0.0
<= 1500.0

I032/490 - Current Control Position

definition: Identification of the Control Position currently controlling a flight.
Group

I032/490/CEN - Centre

Element
bit size: 8
Raw Content

I032/490/POS - Position

Element
bit size: 8
Raw Content

Note:

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

I032/500 - Supplementary Flight Data

definition: Flight related data provided by ground based systems.
Compound

I032/500/IFI - IFPS FLIGHT ID

Group

I032/500/IFI/TYP

Element
bit size: 2
Values:

- **0:** Plan Number
- **1:** Unit 1 internal flight number
- **2:** Unit 2 internal flight number
- **3:** Unit 3 internal flight number

Spare bits: 3

I032/500/IFI/NBR

Element
bit size: 27
Unsigned integer
>= 0.0
<= $9.9999999e7$

I032/500/RVP - RVSM & Flight Priority

Group

Spare bits: 5

I032/500/RVP/RVSM

Element
bit size: 2
Values:

- **0:** Unknown
- **1:** Approved
- **2:** Exempt
- **3:** Not approved

I032/500/RVP/HPR

Element
bit size: 1
Values:

- **0:** Normal Priority Flight
- **1:** High Priority Flight

I032/500/RDS - Runway Designation

Group

I032/500/RDS/NU1 - First Number

Element
bit size: 8
Ascii string (8-bits per char)

I032/500/RDS/NU2 - Second Number

Element
bit size: 8
Ascii string (8-bits per char)

I032/500/RDS/LTR - Letter

Element
bit size: 8
Ascii string (8-bits per char)

I032/500/TOD - Time of Departure / Arrival

Repetitive
Regular, 1 byte(s) REP field size.
Group

I032/500/TOD/TYP

Element
bit size: 5
Values:

- **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

I032/500/TOD/DAY

Element
bit size: 2
Values:

0: Today
1: Yesterday
2: Tomorrow
3: Invalid

Spare bits: 4

I032/500/TOD/HOR

Element
bit size: 5
Unsigned integer
>= 0.0
<= 23.0

Spare bits: 2

I032/500/TOD/MIN

Element
bit size: 6
Unsigned integer
>= 0.0
<= 59.0

I032/500/TOD/AVS

Element
bit size: 1
Values:

0: Seconds available
1: Seconds not available

Spare bits: 1

I032/500/TOD/SEC

Element
bit size: 6
Unsigned integer
>= 0.0
<= 59.0

I032/500/AST - Aircraft Stand

Element
bit size: 48
Ascii string (8-bits per char)

I032/500/STS - Stand Status

Group

I032/500/STS/EMP

Element
bit size: 2
Values:

0: Empty
1: Occupied
2: Unknown
3: Invalid

I032/500/STS/AVL

Element
bit size: 2
Values:

0: Available
1: Not available
2: Unknown
3: Invalid

Spare bits: 4

I032/500/SID - Standard Instrument Departure

Element
bit size: 56
Ascii string (8-bits per char)

I032/500/STAR - Standard Instrument Arrival

Element
bit size: 56
Ascii string (8-bits per char)

Notes:

1. NU1, NU2 and LTR each contain an ASCII character (upper case alphabetic).
2. For details refer to ICAO Annex 14 Chapter 5 [Ref. 4].
3. 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]
4. Each one of the six Octets contains an ASCII Character. The Aircraft Stand identification is always left adjusted. It contains up to six uppercase alphanumeric characters, the remaining character positions (if any) are padded with space characters.
5. 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.
6. 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.

I032/RE - Reserved Expansion Field

definition: Expansion

Explicit (ReservedExpansion)

User Application Profile

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