Asterix category 011 - Transmission of A-SMGCS Data

category: 011

edition: 1.3

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Preamble

Surveillance data exchange.

Description of standard data items

I011/000 - Message Type

definition: This Data Item allows for a more convenient handling of the messages at the receiver side by further defining the type of transaction.

Element
bit size: 8
Values:

- **1:** Target reports, flight plan data and basic alerts
- **2:** Manual attachment of flight plan to track
- **3:** Manual detachment of flight plan to track
- **4:** Insertion of flight plan data
- **5:** Suppression of flight plan data
- **6:** Modification of flight plan data
- **7:** Holdbar status

I011/010 - Data Source Identifier

definition: Identification of the radar station from which the data are received.

Group

I011/010/SAC - System Area Code Fixed to Zero

Element
bit size: 8
Raw Content

I011/010/SIC - System Identification Code

Element
bit size: 8
Raw Content

Note: The SAC is fixed to zero to indicate a data flow local to the airport.

I011/015 - Service Identification

definition: Identification of the service provided to one or more users.

Element
bit size: 8
Raw Content

Note: The service identification is allocated by the A-SMGCS

I011/041 - Position in WGS-84 Coordinates

definition: Position of a target in WGS-84 Coordinates.

Group

I011/041/LAT - Latitude in WGS-84 in Two's Complement

Element
bit size: 32
Signed quantity
LSB = $180/2^{31}$ ° ≈ $8.381903171539306640625e-8$ °
unit: ”°”
>= -90.0
<= 90.0

I011/041/LON - Longitude in WGS-84 in Two's Complement

Element
bit size: 32
Signed quantity
LSB = $180/2^{31}$ ° ≈ $8.381903171539306640625e-8$ °
unit: ”°”
>= -180.0
< 180.0

I011/042 - Calculated Position in Cartesian Co-ordinates

definition: Calculated position of a target in Cartesian co-ordinates (two's complement form).

Group

I011/042/X - X-Component

Element
bit size: 16
Signed quantity
LSB = 1 m ≈ 1.0 m
unit: ”m”
>= -32768.0
<= 32768.0

I011/042/Y - Y-Component

Element
bit size: 16
Signed quantity
LSB = 1 m ≈ 1.0 m
unit: ”m”
>= -32768.0
<= 32768.0

I011/060 - Mode-3/A Code in Octal Representation

definition: Track Mode-3/A code converted into Octal Representation.

Group

Spare bits: 4

I011/060/MOD3A - Mode-3/A Reply in Octal Representation

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

I011/090 - Measured Flight Level

definition: Last valid and credible flight level used to update the track, in two's complement representation.

Element
bit size: 16
Signed quantity
LSB = $1/2^2$ FL ≈ 0.25 FL
unit: ”FL”
>= -12.0
<= 1500.0

Note: The criteria to determine the credibility of the flight level are Tracker dependent. Credible means: within reasonable range of change with respect to the previous detection.

I011/092 - Calculated Track Geometric Altitude

definition: Calculated geometric vertical distance above mean sea level, not related to barometric pressure.

Element
bit size: 16
Signed quantity
LSB = $25/2^2$ ft ≈ 6.25 ft
unit: ”ft”
>= -1500.0
<= 150000.0

Note: The source of altitude is identified in bits (SRC) of item I011/170 Track Status.

I011/093 - Calculated Track Barometric Altitude

definition: Calculated Barometric Altitude of the track.

Group

I011/093/QNH - QNH Correction Applied

Element
bit size: 1
Values:
0: No QNH Correction Applied
1: QNH Correction Applied

I011/093/CTBA - Calculated Track Barometric Altitude

Element
bit size: 15
Signed quantity
LSB = $1/2^2$ FL ≈ 0.25 FL
unit: ”FL”
>= -15.0
<= 1500.0

I011/140 - Time of Track Information

definition: Absolute time stamping expressed as UTC.

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

Note: The Time of Track Information value is reset to zero each day at midnight.

I011/161 - Track Number

definition: Identification of a fusion track (single track number).

Group

Spare bits: 1

I011/161/FTN - Fusion Track Number

Element
bit size: 15
Raw Content

I011/170 - Track Status

definition: Status of track.

Extended

I011/170/MON

Element
bit size: 1
Values:

- **0:** Multisensor Track
- **1:** Monosensor Track

I011/170/GBS

Element
bit size: 1
Values:

- **0:** Transponder Ground bit not set or unknown
- **1:** Transponder Ground bit set

I011/170/MRH

Element
bit size: 1
Values:

- **0:** Barometric altitude (Mode C) more reliable
- **1:** Geometric altitude more reliable

I011/170/SRC

Element
bit size: 3
Values:

- **0:** No source
- **1:** GPS
- **2:** 3d radar
- **3:** Triangulation
- **4:** Height from coverage
- **5:** Speed look-up table
- **6:** Default height
- **7:** Multilateration

I011/170/CNF

Element
bit size: 1
Values:

- **0:** Confirmed track
- **1:** Tentative track

(FX) - extension bit

I011/170/SIM

Element
bit size: 1
Values:

- **0:** Actual Track
- **1:** Simulated track

I011/170/TSE

Element
bit size: 1
Values:

- **0:** Default value
- **1:** Track service end (i.e. last message transmitted to the user for the track)

I011/170/TSB

Element
bit size: 1
Values:

- **0:** Default value
- **1:** Track service begin (i.e. first message transmitted to the user for the track)

I011/170/FRIFOE

Element
bit size: 2
Values:

- **0:** No Mode 4 interrogationt
- **1:** Friendly target
- **2:** Unknown target
- **3:** No reply

I011/170/ME

Element
bit size: 1
Values:

- **0:** Default value
- **1:** Military Emergency present in the last report received from a sensor capable of decoding this data

I011/170/MI

Element
bit size: 1
Values:

- **0:** End of Data Item
- **1:** Military Identification present in the last report received from a sensor capable of decoding this data

(FX) - extension bit

I011/170/AMA

Element
bit size: 1
Values:

0: Track not resulting from amalgamation process
1: Track resulting from amalgamation process

I011/170/SPI

Element
bit size: 1
Values:

0: Default value
1: SPI present in the last report received from a sensor capable of decoding this data

I011/170/CST

Element
bit size: 1
Values:

0: Default value
1: Age of the last received track update is higher than system dependent threshold (coasting)

I011/170/FPC

Element
bit size: 1
Values:

0: Not flight-plan correlated
1: Flight plan correlated

I011/170/AFF

Element
bit size: 1
Values:

0: Default value
1: ADS-B data inconsistent with other surveillance information

Spare bits: 2

(FX) - extension bit

Spare bits: 1

I011/170/PSR

Element
bit size: 1
Values:

0: Default value
1: Age of the last received PSR track update is higher than system dependent threshold

I011/170/SSR

Element
bit size: 1
Values:

0: Default value
1: Age of the last received SSR track update is higher than system dependent threshold

I011/170/MDS

Element
bit size: 1
Values:

0: Default value
1: Age of the last received Mode S track update is higher than system dependent threshold

I011/170/ADS

Element
bit size: 1
Values:

0: Default value
1: Age of the last received ADS track update is higher than system dependent threshold

I011/170/SUC

Element
bit size: 1
Values:

0: Default value
1: Special Used Code (Mode A codes to be defined in the system to mark a track with special interest)

I011/170/AAC

Element
bit size: 1
Values:

0: Default value
1: Assigned Mode A Code Conflict (same individual Mode A Code assigned to another track)

(FX) - extension bit

Track type and coasting can also be derived from Data Item I011/290 System Track Update Ages

I011/202 - Calculated Track Velocity in Cartesian Coordinates

definition: Calculated track velocity expressed in Cartesian co-ordinates.

Group

I011/202/VX - Vx

Element
bit size: 16
Signed quantity
LSB = $1/2^2$ m/s ≈ 0.25 m/s
unit: ”m/s”
>= -8192.0
<= 8192.0

I011/202/VY - Vy

Element
bit size: 16
Signed quantity
LSB = $1/2^2$ m/s ≈ 0.25 m/s
unit: ”m/s”
>= -8192.0
<= 8192.0

I011/210 - Calculated Acceleration

definition: Calculated Acceleration of the target, in two's complement form.

Group

I011/210/AX - Ax

Element
bit size: 8
Signed quantity
LSB = $1/2^2$ m/s² ≈ 0.25 m/s²
unit: ”m/s²”
>= -31.0
<= 31.0

I011/210/AY - Ay

Element
bit size: 8
Signed quantity
LSB = $1/2^2$ m/s² ≈ 0.25 m/s²
unit: ”m/s²”
>= -31.0
<= 31.0

I011/215 - Calculated Rate Of Climb/Descent

definition: Calculated rate of Climb/Descent of an aircraft, in two's complement form.

Element
bit size: 16
Signed quantity
LSB = $25/2^2$ ft/min ≈ 6.25 ft/min
unit: ”ft/min”
>= -204800.0
<= 204800.0

I011/245 - Target Identification

definition: Target (aircraft or vehicle) identification in 8 characters.

Group

I011/245/STI

Element
bit size: 2
Values:

- **0:** Callsign or registration downlinked from transponder
- **1:** Callsign not downlinked from transponder
- **2:** Registration not downlinked from transponder

Spare bits: 6

I011/245/TID - Target Identification

Element
bit size: 48
ICAO string (6-bits per char)

Note: Characters 1-8 (coded on 6 bits each) defining target identification

I011/270 - Target Size and Orientation

definition: Target size defined as length and with of the detected target, and orientation.

Extended

I011/270/LENGTH - Length

Element
bit size: 7
Unsigned quantity
LSB = 1 m ≈ 1.0 m
unit: ”m”

(FX) - extension bit

I011/270/ORIENTATION - Orientation

Element
bit size: 7
Unsigned quantity
LSB = $360/2^7$ ° ≈ 2.8125 °
unit: ”°”

(FX) - extension bit

I011/270/WIDTH - Width

Element
bit size: 7
Unsigned quantity
LSB = 1 m ≈ 1.0 m
unit: ”m”

(FX) - extension bit

Note: The orientation gives the direction to which the aircraft nose is pointing, relative to the Geographical North.

I011/290 - System Track Update Ages

definition: Ages of the last plot/local track, or the last valid mode-A/mode-C, used to update the system track.

Compound

I011/290/PSR - Age of the Last Primary Report Used to Update the Track

Element
bit size: 8
Unsigned quantity
LSB = $1/2^2$ s ≈ 0.25 s
unit: ”s”

I011/290/SSR - Age of the Last Secondary Report Used to Update the Track

Element
bit size: 8
Unsigned quantity
LSB = $1/2^2$ s ≈ 0.25 s
unit: ”s”

I011/290/MDA - Age of the Last Valid Mode A Report Used to Update the Track

Element
bit size: 8
Unsigned quantity
LSB = $1/2^2$ s ≈ 0.25 s
unit: ”s”

I011/290/MFL - Age of the Last Valid and Credible Mode C Used to Update the Track

Element
bit size: 8
Unsigned quantity
LSB = $1/2^2$ s ≈ 0.25 s
unit: ”s”

I011/290/MDS - Age of the Last Mode S Report Used to Update the Track

Element
bit size: 8
Unsigned quantity
LSB = $1/2^2$ s ≈ 0.25 s
unit: ”s”

I011/290/ADS - Age of the Last ADS Report Used to Update the Track

Element
bit size: 16
Unsigned quantity
LSB = $1/2^2$ s ≈ 0.25 s
unit: ”s”

I011/290/ADB - Age of the Last ADS-B Report Used to Update the Track

Element
bit size: 8
Unsigned quantity
LSB = $1/2^2$ s ≈ 0.25 s
unit: ”s”

I011/290/MD1 - Age of the Last Valid Mode 1 Used to Update the Track

Element
bit size: 8
Unsigned quantity
LSB = $1/2^2$ s ≈ 0.25 s
unit: ”s”

I011/290/MD2 - Age of the Last Valid Mode 2 Used to Update the Track

Element
bit size: 8
Unsigned quantity
LSB = $1/2^2$ s ≈ 0.25 s
unit: ”s”

I011/290/LOP - Age of the Last Magentic Loop Detection

Element
bit size: 8
Unsigned quantity
LSB = $1/2^2$ s ≈ 0.25 s
unit: ”s”

I011/290/TRK - Actual Track Age Since First Occurrence

Element
bit size: 8
Unsigned quantity
LSB = $1/2^2$ s ≈ 0.25 s
unit: ”s”

I011/290/MUL - Age of the Last Multilateration Detection

Element
bit size: 8
Unsigned quantity
LSB = $1/2^2$ s ≈ 0.25 s
unit: ”s”

Note: The ages are counted from Data Item I011/140, Time Of Track Information, using the following formula: Age = Time of track information - Time of last (valid) update If the computed age is greater than the maximum value or if the data has never been received, then the corresponding subfield is not sent.

I011/300 - Vehicle Fleet Identification

definition: Vehicle fleet identification number.

Element
bit size: 8
Values:

- **0:** Flyco (follow me)
- **1:** ATC equipment maintenance
- **2:** Airport maintenance
- **3:** Fire
- **4:** Bird scarer
- **5:** Snow plough
- **6:** Runway sweeper
- **7:** Emergency
- **8:** Police
- **9:** Bus
- **10:** Tug (push/tow)
- **11:** Grass cutter
- **12:** Fuel
- **13:** Baggage
- **14:** Catering
- **15:** Aircraft maintenance
- **16:** Unknown

I011/310 - Pre-programmed Message

definition: Number related to a pre-programmed message that can be transmitted by a vehicle.

Group

I011/310/TRB - In Trouble

Element
bit size: 1
Values:

- **0:** Default
- **1:** In Trouble

I011/310/MSG - Message

Element
bit size: 7
Values:

- **1:** Towing aircraft
- **2:** FOLLOW-ME operation
- **3:** Runway check
- **4:** Emergency operation (fire, medical...)
- **5:** Work in progress (maintenance, birds scarer, sweepers...)

I011/380 - Mode-S / ADS-B Related Data

definition: Data specific to Mode-S ADS-B.

Compound

I011/380/MB - BDS

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

Element
bit size: 64
BDS register with address

I011/380/ADR - 24 Bits Aircraft Address

Element
bit size: 24
Raw Content

Spare

I011/380/COMACAS - Communications/ACAS Capability and Flight Status

Group

I011/380/COMACAS/COM - Communications Capability of the Transponder

Element
bit size: 3
Values:

0: No communications capability (surveillance only)
1: Comm. A and Comm. B capability
2: Comm. A, Comm. B and Uplink ELM
3: Comm. A, Comm. B, Uplink ELM and Downlink ELM
4: Level 5 Transponder capability
5: Not assigned
6: Not assigned
7: Not assigned

I011/380/COMACAS/STAT - Flight Status

Element
bit size: 4
Values:

0: No alert, no SPI, aircraft airborne
1: No alert, no SPI, aircraft on ground
2: Alert, no SPI, aircraft airborne
3: Alert, no SPI, aircraft on ground
4: Alert, SPI, aircraft airborne or on ground
5: No alert, SPI, aircraft airborne or on ground
6: General Emergency
7: Lifeguard / medical
8: Minimum fuel
9: No communications
10: Unlawful interference

Spare bits: 1

I011/380/COMACAS/SSC - Specific Service Capability

Element
bit size: 1
Values:

0: No
1: Yes

I011/380/COMACAS/ARC - Altitude Reporting Capability

Element
bit size: 1
Values:

0: 100 ft resolution

1: 25 ft resolution

I011/380/COMACAS/AIC - Aircraft Identification Capability

Element
bit size: 1
Values:

0: No
1: Yes

I011/380/COMACAS/B1A - BDS 1,0 Bit 16

Element
bit size: 1
Raw Content

I011/380/COMACAS/B1B - BDS 1,0 Bit 37/40

Element
bit size: 4
Raw Content

I011/380/COMACAS/AC - ACAS Operational

Element
bit size: 1
Values:

0: No
1: Yes

I011/380/COMACAS/MN - Multiple Navigational Aids Operating

Element
bit size: 1
Values:

0: No
1: Yes

I011/380/COMACAS/DC - Differential Correction

Element
bit size: 1
Values:

0: Yes
1: No

Spare bits: 5

Spare

Spare

Spare

I011/380/ACT - Aircraft Derived Aircraft Type

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

I011/380/ECAT - Emitter Category

Element
bit size: 8
Values:

1: Light aircraft <= 7000 kg
2: Reserved
3: 7000 kg < medium aircraft < 136000 kg
4: Reserved
5: 136000 kg <= heavy aircraft
6: Highly manoeuvrable (5g acceleration capability) and high speed (>400 knots cruise)
7: Reserved

8: Reserved
9: Reserved
10: Rotocraft
11: Glider / sailplane
12: Lighter-than-air
13: Unmanned aerial vehicle
14: Space / transatmospheric vehicle
15: Ultralight / handglider / paraglider
16: Parachutist / skydiver
17: Reserved
18: Reserved
19: Reserved
20: Surface emergency vehicle
21: Surface service vehicle
22: Fixed ground or tethered obstruction
23: Reserved
24: Reserved

Spare

I011/380/AVTECH - Available Technologies

Group

I011/380/AVTECH/VDL - VDL Mode 4

Element
bit size: 1
Values:

0: VDL Mode 4 available
1: VDL Mode 4 not available

I011/380/AVTECH/MDS - Mode S

Element
bit size: 1
Values:

0: Mode S available
1: Mode S not available

I011/380/AVTECH/UAT - UAT

Element
bit size: 1
Values:

0: UAT available
1: UAT not available

Spare bits: 5

I011/390 - Flight Plan Related Data

definition: All flight plan related information.

Compound

I011/390/FPPSID - FPPS Identification Tag

Group

I011/390/FPPSID/SAC - System Area Code

Element
bit size: 8
Raw Content

I011/390/FPPSID/SIC - System Identity Code

Element
bit size: 8
Raw Content

I011/390/CSN - Callsign

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

I011/390/IFPSFLIGHTID - IFPS_FLIGHT_ID

Group

I011/390/IFPSFLIGHTID/TYP - IFPS Flight ID Type

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

I011/390/IFPSFLIGHTID/NBR - IFPS Flight ID Number

Element
bit size: 27
Raw Content

I011/390/FLIGHTCAT - Flight Category

Group

I011/390/FLIGHTCAT/GATOAT - Flight Type

Element
bit size: 2
Values:

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

I011/390/FLIGHTCAT/FR1FR2 - Flight Rules

Element
bit size: 2
Values:

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

I011/390/FLIGHTCAT/RVSM - RVSM

Element
bit size: 2
Values:

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

I011/390/FLIGHTCAT/HPR - Flight Priority

Element
bit size: 1
Values:

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

Spare bits: 1

I011/390/TOA - Type of Aircraft

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

I011/390/WTC - Wake Turbulence Category

Element
bit size: 8
Values:

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

I011/390/ADEP - Departure Airport

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

I011/390/ADES - Destination Airport

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

I011/390/RWY - Runway Designation

Element
bit size: 24
Ascii string (8-bits per char)

I011/390/CFL - Current Cleared Flight Level

Element
bit size: 16
Unsigned quantity
LSB = $1/2^2$ FL ≈ 0.25 FL
unit: "FL"

I011/390/CCP - Current Control Position

Group

I011/390/CCP/CENTRE - 8-bit Group Identification Code

Element
bit size: 8
Raw Content

I011/390/CCP/POSITION - 8-bit Control Position Identification Code

Element
bit size: 8
Raw Content

I011/390/TOD - Time of Departure

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

I011/390/TOD/TYP - Time Type

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

I011/390/TOD/DAY - Day

Element
bit size: 2
Values:

0: Today
1: Yesterday
2: Tomorrow

Spare bits: 4

I011/390/TOD/HOR - Hours, from 0 to 23

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

Spare bits: 2

I011/390/TOD/MIN - Minutes, from 0 to 59

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

I011/390/TOD/AVS - Seconds Available

Element
bit size: 1
Values:

0: Seconds available
1: Seconds not available

Spare bits: 1

I011/390/TOD/SEC - Seconds, from 0 to 59

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

I011/390/AST - Aircraft Stand

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

I011/390/STS - Stand Status

Group

I011/390/STS/EMP - Stand Empty

Element
bit size: 2
Values:

0: Empty
1: Occupied
2: Unknown

I011/390/STS/AVL - Stand Available

Element
bit size: 2
Values:

0: Available
1: Not available
2: Unknown

Spare bits: 4

I011/430 - Phase of Flight

definition: Current phase of the flight.

Element
bit size: 8
Values:

0: Unknown
1: On stand
2: Taxiing for departure
3: Taxiing for arrival
4: Runway for departure
5: Runway for arrival
6: Hold for departure
7: Hold for arrival
8: Push back
9: On finals

I011/500 - Estimated Accuracies

definition: Overview of all important accuracies (standard deviations).
Compound

I011/500/APC - Estimated Accuracy Of Track Position (Cartesian)

Group

I011/500/APC/X - Estimated Accuracy of the Calculated Position of X Component

Element
bit size: 8
Unsigned quantity
LSB = $1/2^2$ m ≈ 0.25 m
unit: ”m”

I011/500/APC/Y - Estimated Accuracy of the Calculated Position of Y Component

Element
bit size: 8
Unsigned quantity
LSB = $1/2^2$ m ≈ 0.25 m
unit: ”m”

I011/500/APW - Estimated Accuracy Of Track Position (WGS84)

Group

I011/500/APW/LAT - APW Latitude Component Accuracy

Element
bit size: 16
Signed quantity
LSB = $180/2^31$ ° $\approx 8.381903171539306640625e-8$ °
unit: ”°”

I011/500/APW/LON - APW Longitude Component Accuracy

Element
bit size: 16
Signed quantity
LSB = $180/2^{31}$ ° ≈ $8.381903171539306640625e-8$ °
unit: ”°”

I011/500/ATH - Estimated Accuracy Of Track Height

Element
bit size: 16
Signed quantity
LSB = $1/2$ m ≈ 0.5 m
unit: ”m”

I011/500/AVC - Estimated Accuracy Of Track Velocity (Cartesian)

Group

I011/500/AVC/X - Estimated Accuracy of the Calculated Velocity of X Component

Element
bit size: 8
Unsigned quantity
LSB = $1/10$ m/s ≈ 0.1 m/s
unit: ”m/s”

I011/500/AVC/Y - Estimated Accuracy of the Calculated Velocity of Y Component

Element
bit size: 8
Unsigned quantity
LSB = $1/10$ m/s ≈ 0.1 m/s
unit: ”m/s”

I011/500/ARC - Estimated Accuracy Of Rate Of Climb / Descent

Element
bit size: 16
Signed quantity
LSB = $1/10$ m/s ≈ 0.1 m/s
unit: ”m/s”

I011/500/AAC - Estimated Accuracy Of Acceleration (Cartesian)

Group

I011/500/AAC/X - Estimated Accuracy Of Acceleration of X Component

Element
bit size: 8
Unsigned quantity
LSB = $1/100$ m/s² ≈ $1.0e-2$ m/s²
unit: ”m/s²”

I011/500/AAC/Y - Estimated Accuracy Of Acceleration of Y Component

Element
bit size: 8
Unsigned quantity
LSB = $1/100$ m/s² ≈ $1.0e-2$ m/s²
unit: ”m/s²”

I011/600 - Alert Messages

definition: Alert involving the targets indicated in I011/605.

Group

I011/600/ACK - Alert Acknowleged

Element
bit size: 1
Values:

0: Alert acknowledged
1: Alert not acknowledged

I011/600/SVR - Alert Severity

Element
bit size: 2
Values:

0: End fo alert
1: Pre-alarm
2: Severe alert

Spare bits: 5

I011/600/AT - Alert Type

Element
bit size: 8
Raw Content

I011/600/AN - Alert Number

Element
bit size: 8
Raw Content

I011/605 - Tracks in Alert

definition: List of track numbers of the targets concerned by the alert described in I011/600.

Repetitive

Regular, 1 byte(s) REP field size.

Group

Spare bits: 4

I011/605/FTN - Fusion Track Number

Element
bit size: 12
Raw Content

I011/610 - Holdbar Status

definition: Status of up to sixteen banks of twelve indicators.

Repetitive

Regular, 1 byte(s) REP field size.

Group

I011/610/BKN - Bank Number

Element
bit size: 4
Raw Content

I011/610/I1 - Indicator 1

Element
bit size: 1
Values:

0: Indicator on

1: Indicator off

I011/610/I2 - Indicator 2

Element
bit size: 1
Values:

0: Indicator on
1: Indicator off

I011/610/I3 - Indicator 3

Element
bit size: 1
Values:

0: Indicator on
1: Indicator off

I011/610/I4 - Indicator 4

Element
bit size: 1
Values:

0: Indicator on
1: Indicator off

I011/610/I5 - Indicator 5

Element
bit size: 1
Values:

0: Indicator on
1: Indicator off

I011/610/I6 - Indicator 6

Element
bit size: 1
Values:

0: Indicator on
1: Indicator off

I011/610/I7 - Indicator 7

Element
bit size: 1
Values:

0: Indicator on
1: Indicator off

I011/610/I8 - Indicator 8

Element
bit size: 1
Values:

0: Indicator on
1: Indicator off

I011/610/I9 - Indicator 9

Element
bit size: 1
Values:

0: Indicator on
1: Indicator off

I011/610/I10 - Indicator 10

Element
bit size: 1
Values:

0: Indicator on
1: Indicator off

I011/610/I11 - Indicator 11

Element
bit size: 1
Values:

0: Indicator on
1: Indicator off

I011/610/I12 - Indicator 12

Element
bit size: 1
Values:

0: Indicator on
1: Indicator off

I011/SP - Special Purpose Field

definition: Special Purpose Field

Explicit (SpecialPurpose)

I011/RE - Reserved Expansion Field

definition: Expansion

Explicit (ReservedExpansion)

User Application Profile

- 1: `I011/010` - Data Source Identifier
- 2: `I011/000` - Message Type
- 3: `I011/015` - Service Identification
- 4: `I011/140` - Time of Track Information
- 5: `I011/041` - Position in WGS-84 Coordinates
- 6: `I011/042` - Calculated Position in Cartesian Co-ordinates
- 7: `I011/202` - Calculated Track Velocity in Cartesian Coordinates
- (FX) - Field extension indicator
- 8: `I011/210` - Calculated Acceleration
- 9: `I011/060` - Mode-3/A Code in Octal Representation
- 10: `I011/245` - Target Identification
- 11: `I011/380` - Mode-S / ADS-B Related Data
- 12: `I011/161` - Track Number
- 13: `I011/170` - Track Status
- 14: `I011/290` - System Track Update Ages
- (FX) - Field extension indicator
- 15: `I011/430` - Phase of Flight
- 16: `I011/090` - Measured Flight Level
- 17: `I011/093` - Calculated Track Barometric Altitude
- 18: `I011/092` - Calculated Track Geometric Altitude
- 19: `I011/215` - Calculated Rate Of Climb/Descent
- 20: `I011/270` - Target Size and Orientation
- 21: `I011/390` - Flight Plan Related Data
- (FX) - Field extension indicator
- 22: `I011/300` - Vehicle Fleet Identification
- 23: `I011/310` - Pre-programmed Message
- 24: `I011/500` - Estimated Accuracies
- 25: `I011/600` - Alert Messages
- 26: `I011/605` - Tracks in Alert

- 27: `I011/610` - Holdbar Status
- 28: `I011/SP` - Special Purpose Field
- (FX) - Field extension indicator
- 29: `I011/RE` - Reserved Expansion Field
- *Spare*
- *Spare*
- *Spare*
- *Spare*
- *Spare*
- *Spare*
- (FX) - Field extension indicator