Flight Information Exchange Model Core Data Dictionary

The Flight Information Exchange Model (FIXM) is a global standard for achieving interoperable exchanges of flight information. FIXM is based on a standardized (yet extensible and dynamic) set of data elements that increase interoperability and data exchange among automated systems. FIXM is part of a family of technology-independent, harmonized, and interoperable information exchange models and Extensible Markup Language (XML) schemas [alongside the Aeronautical Information Exchange Model (AIXM) and Weather Information Exchange Model (WXXM)]. FIXM is designed to support the information needs of global aviation stakeholders such as Air Traffic Management (ATM), airlines, airport personnel, and Air Navigation Service Providers (ANSP).

This FIXM Data Dictionary (FIXM DD) provides a conceptual explanation of the flight data elements (FDEs) expected to be exchanged using the FIXM standard. Currently, the FIXM DD includes a definition for each FDE, as well as alternate names that reflect various nomenclatures across systems and operational domains, relationships among FDEs, data types, value ranges (where applicable), business rules associated with the individual use of each FDE, and references to authoritative sources where more information can be found regarding the referenced FDE. The FIXM DD is complementary to the other FIXM artifacts such as the FIXM models and the FIXM schemas.

FIXM v2.0.0 catalogues FDEs associated with the exchange of the ICAO 2012 Flight Plan, the Globally Unique Flight Identifier (GUFI), the tracking of Dangerous Goods, Air Traffic Services (ATS) messages, ATS Interfacility Data Communications (AIDC) messages, Traffic Flow Management Data Exchange (TFM-DE), Collaborative Decision Making (CDM), fleet prioritization, ANSP to ANSP Boundary Crossing, Aircraft Situation Display to Industry (ASDI)/Flight Table Manager (FTM) Connect, and Code Share.

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Document History

Version	Version Type	Description	Entered By
0.90	Final	• Produced the first draft based on the Flight Object Ontology FIXM report	Booz Allen Hamilton
0.91	Final	• Adjudicated first round of comments from development team	Booz Allen Hamilton
0.92	Final	• Updated Data Dictionary based on stakeholder feedback	Booz Allen Hamilton
1.00	Draft	• Incorporated updates from stakeholder feedback and operated minor editorial changes	Booz Allen Hamilton
1.00	Draft	• Incorporated updates from stakeholder feedback and operated minor editorial changes	Booz Allen Hamilton
1.00	Final	• Incorporated final updates from stakeholder feedback and updated with minor editorial changes • Added 2 data elements: Departure Time – Actual, Arrival Time – Estimated • Deleted Change Log (will be for internal use only) • Deleted Correlation Matrix	Booz Allen Hamilton
1.10	Final	• Added Hazardous data elements • Added the use of 'container' elements • Incorporated minor editorial changes resulting from comments to v1.0	Booz Allen Hamilton
2.00	Draft	• Added data elements for ATS Messages, AIDC Messages, TFM-DE, CDM (FAA), CDM (Airservices Australia), fleet prioritization, ANSP-ANSP Boundary Crossing, ASDI/FTM Connect, Add Code Share, and Airport CDM	Booz Allen Hamilton
2.00	Final	• Minor edits to element level metadata • Minor grammatical edits throughout	Booz Allen Hamilton

1 Element Metadata Definitions

Element-level metadata are used to capture the meaning of the data elements, to provide the context in which they appear and their associated business rules. The element-level metadata are:

1.1 Name

This metadata captures a unique, descriptive name for the data element. The naming convention used in this document attempts to fulfil the following goals:

1. The data element name should not contain acronyms – to the extent possible. The use of acronyms raises the risk of the names being used erroneously. Commonly used aviation domain terms are optimal for naming conventions; however, in some cases, the use of synonyms may be the most practical approach.
2. The name should express – as much as possible – the type of data it represents (e.g., time, speed, altitude).
3. The names should be constructed such that related data elements are adjacent in an alphabetized list. For example, "Alternate Destination Aerodrome" was named "Destination Aerodrome – Alternate", to allow its record to be documented adjacent to another related data element called "Destination Aerodrome".

1.2 Definition

This metadata describes the data element in unambiguous and universal terms such that a reader, with a basic level of aviation domain knowledge, can have a clear understanding of what information the data element represents. If necessary, the description may point to references that provide further clarification. This description should avoid jargon or references to systems' behaviour to the extent possible and should be clear and succinct.

1.3 Alternate Names

This metadata captures alternate terms (i.e., terms from other domains that are used synonymously), and any other information that would facilitate the discovery of semantically equivalent (or related) data elements.

1.4 Has Parts

This metadata lists any other (possibly more basic) data elements contained by the data element to which the metadata refers. Therefore, when the "Has Parts" metadata is populated, this data element will always be denoted as a "Container" data type. For example, for the FIXM Data Dictionary v2.0.0, "Route Impact List" has the following parts: "Predicted Airways", "Predicted Units", and "Predicted Sectors". These data elements are described as unique data elements in the data dictionary as well.

1.5 Is Part Of

This metadata will be populated if the referenced data element is part of a "Container". It specifies the name of the container data element to which the referenced data element belongs. For example, for the FIXM Data Dictionary v2.0.0, "Predicted Airways" is part of "Route Impact List".

Note: The "Container" element will list the name of the referenced data element in its "Has Parts" field.

1.6 Range of Values

This metadata indicates the range of values the data element can take. This is accomplished by either providing upper and lower threshold values, or by explicitly enumerating all the possible values. In the case of an enumeration, this metadata also specifies if the data element can take only one or more of the enumerated values.

There are a few exceptions to how this metadata is used in the Data Dictionary:

1. In some cases, the list of all possible values for a data element is too long to be captured in this document. In those cases, the "Range of Values" metadata field will contain a reference to the document(s) that specify the valid list of values.
2. Some data elements can assume more than one value from a controlled vocabulary. In this case, Range of Values captures the controlled vocabulary, and the "Notes" section clarifies which combinations of values are acceptable.

Notation

The following notation conventions are used to describe the Range of Values:

1. Discrete enumeration. Predefined values are listed explicitly and exhaustively. They are separated by commas, and the whole collection is delimited by curly brackets. Example: {IFR, VFR}. In a software implementation, this type of discrete enumeration would be implemented as an enumeration.
2. Numeric range. This is a range of numbers defined implicitly by specifying the lower and upper limits, separated by a dash symbol ('-') and delimited by square brackets. Example: [0-99] specifies a range of 100 numeric values starting with 0 (inclusive of 0) and ending with 99 (inclusive of 99). Some numeric ranges are specified in bases other than 10, such as base 8 (octal) or 16 (hexadecimal). In these cases, an explanatory note is provided.
3. Alphabetic range. This is a range of alphabetic characters defined implicitly by specifying the first and last characters, separated by the dash symbol ('-') and delimited by square brackets. Example: [A-Z] specifies a range of letters (ordered alphabetically) starting with upper-case 'A' and ending with upper-case 'Z'. Please note, unless specified otherwise, all alphabetic characters are assumed to be upper case letters corresponding to the American Standard Code for Information Interchange (ASCII) characters in the range of 41hex to 5Ahex.

These notation conventions can be combined, in order to express more complex types of value ranges. For example:

1. [A-Z, 0-9] represents upper-case letters and numbers
2. {[A-Z], +, -, ,} represents upper-case letters, the '+' (plus) character, the '-' (minus) character . and the ',' (comma) character

The Range of Values, as defined above, can be accompanied by a modifier which further defines the range:

1. Multiplicity. The number of values each data element can have is specified in plain language, preceding or following the range definition. For example, if the data element can take only one value from a discrete enumeration (i.e., the enumeration has mutually exclusive values), then the range is specified as "{V1, V2, V3, V4}". If multiple values are acceptable, the range is specified as "one or more of the following values: {V1, V2, V3, V4}". If there is an upper limit on how many values can be combined, that is specified also ("up to 3 of {V1, V2, V3, V4, V5}".

2. Exclusion. In certain cases, some values in an implicit range are not valid. In those cases, the invalid values are specified after the range. For example: “[A-S] excluding {I, N, O}”.

Other considerations:

1. Free-form text. Unless otherwise specified, the default value range for the acceptable characters in free-form text is {[A-Z], [0-9], -, ?, :, (,), ., ,, ‘, =, /,+}.
2. Complex data elements. Certain data elements are complex in nature (they contain multiple data elements as components.)
3. In all cases, if the Range of Values is already captured within the description of the data type, this metadata will be left blank.

1.7 Business Rules

This metadata defines or constrains some aspect of the use of a particular data element. They have the following functions:

1. describes how data elements are used together in a functional or operational context
2. defines roles or functionality associated with data elements
3. describes rules for using the data elements in specific contexts

Business Rules will be defined by guidance documents and will outline when and how the referenced data element will be used. Multiple Business Rules should be in a bulleted list.

For example, specific Business Rules are:

1. Boundary Crossing Condition: “This data element is always associated with Boundary Crossing Level – Transition.”
2. Departure Airport: “If expressed as ICAO location identifier, values comply with ICAO Doc. 7910.”
3. Flight Operator Category: "In the United States, the Flight Operator Category is determined by TFMS based on internal matching tables.”

1.8 Notes

This field captures any other pertinent information or knowledge regarding the referenced data element that does not fit in any of the other data fields. This section may include descriptions of enumerated values, descriptions of the operating environment, the individual data types comprised by a “Complex” data type, data type formatting, examples and other information in the reference documentation. Limited guidance-specific XML may be listed here for clarification purposes. Multiple Notes should be in a bulleted list.

1.9 References

This metadata lists specific sources which further define, explain, and/or provide additional information about the data element, its context and its role. Multiple References should be in a bulleted list.

2 Data Type

Data Types	Description of Changes
Aerodrome	This data type identifies an Aerodrome and can be described as one of the following: **Aerodrome Identifier:** a predefined four (4) character string. Aerodrome codes are published in ICAO Document 7910. **Aerodrome Description:** an alphanumeric string of undefined length describing the Aerodrome or its commonly known name. **Latitude/Longitude:** a location expressed as a pair of latitude and longitude coordinates. **Fix-radial-distance:** a location defined by three values: a navigation aid identifier (typically a VOR), a magnetic heading, and a distance. The distance is expressed in nautical miles.
Alpha Character	One upper-case alphabetic character in the range [A-Z].
Alpha String	String of upper-case alphabetic characters in the range [A-Z].
Alphanumeric Character	One character in the following range: {[A-Z], [0-9], -,?,:, (,), ., ,, ,, =, /,+, }
Alphanumeric String	String of characters in the following range: {[A-Z], [0-9], -,?,:, (,), ., ,, ,, =, /,+} NOTE: Throughout the Data Dictionary, the reader might encounter the concept of free-form text. This is simply an alphanumeric string containing unstructured words and sentences.
Altitude	The altitude can be expressed in two ways: **Flight Level (FL)** is a standard nominal altitude of an aircraft, calculated from the International standard pressure datum of 1013.25 hPa (29.92 inches in Hg), the average sea-level pressure. Flight Level is expressed in metres or feet. It is not necessarily the same as the aircraft's true altitude, either above mean sea level or above ground level. Four alternative conventions are available for the expression of flight level data: 1. “F” followed by three (3) decimal numeric characters: indicates a flight level number, e.g. Flight Level 330 is expressed as “F330”; 2. “S” followed by four (4) decimal numeric characters: indicates standard metric level in tens of metres, i.e. Standard Metric Level 11,300 metres (Flight Level 370) is expressed as “S1130”; 3. “A” followed by three (3) decimal numeric characters: indicates altitude in hundreds of feet, e.g. an altitude of 4,500 feet is expressed as “A045”; 4. “M” followed by four (4) decimal numeric characters: indicates altitude in tens of metres, e.g. an altitude of 8,400 metres is expressed as “M0840”. **Altitude** is the real altitude calculated by the aircraft, by measuring the air pressure and adjusting it for the local air pressure. Altitude is expressed in

	metres or feet. Range of values: [0-130,000] when expressed in feet, [0-40,000] when expressed in metres.
Beacon Code & Mode	This data type describes the Secondary Surveillance Radar (SSR) mode and transponder code of the flight. This data type contains an enumerated list of SSR Mode: {A, C, S} and an octal range of Beacon Code: [0000 - 7777]. The enumeration "S" refers to selective interrogation for ADS-B and is associated with the aircraft address.
Boolean	This data type has one of two values (denoted true or false), intended to provide the truth value of a state represented by the data element (i.e., if the “Flight Plan Accepted” data element has the value true, it signifies that the flight plan was accepted.)
Complex	This data type is a combination of two or more data types (e.g. Requested Direct Route), or can be one data type or another depending on the circumstance (e.g. Communications Capabilities). The “Complex” data type cannot be used in conjunction with the "Container" data type (see definition below). If the “Complex” data type is used, the “Notes” section shall be used to explain the individual data types that comprise the complex data type or in specific cases where one data type is used in place of another. The “Range of Values” metadata includes all appropriate enumerated values.
Container	This data type is used to signify a data element has a hierarchical structure containing one or more data elements. If a data element is of data type “Container”, then at least one data element should be listed in “Has Parts”. “Container” data types can be combined with other data types. For example, the data element “Expanded Route Point” is of data types “Container” and “Location”.
Date Time	Represents a specific instance of time and date. The pattern for this data type is YYYY-MM-DDThh:mm:ss[.SSS][Z | GMT-zzzz] where YYYY represents the year, MM the month, and DD the day, preceded by an optional leading negative (-) character to indicate a negative number. If the negative character is omitted, positive (+) is assumed. The T is the date/time separator, and hh, mm, and ss represent hours, minutes, and seconds respectively. Additional digits can be used to increase the precision of fractional seconds, if desired. For example, the format ss.ss..., with any number of digits after the decimal point is supported. Specifying fractions of a second is optional. This representation may be immediately followed by a "Z" to indicate Coordinated Universal Time (UTC) or to indicate the time zone. For example, the difference between the local time and UTC, immediately followed by a sign, + or -, followed by the difference from UTC represented as hh:mm (minutes is required). If the time zone is included, both hours and minutes must be present.
Direction	Indicates direction relative to either true north or magnetic north. Range of values is [0-360], expressed in degrees as a floating point number. All data elements that represent a heading, bearing, or ground track are of data type “Direction”.
Enumeration	This data type represents one or multiple choices from a finite, predefined

	collection of choices (controlled vocabulary). NOTE: In this document, whenever the “Enumeration” data type is used, the controlled vocabulary is specified in the “Range of Values” field, whenever practicable. If the enumeration is too large to be included explicitly, a reference is provided.
Flight Rules	An enumerated listing of an Aircraft's flight rules {I, V, Y, Z}, as defined in ICAO 4444 where: I - Instrument Flight Rules (IFR) V - Visual Flight Rules (VFR) Y - IFR first, followed by one or more subsequent change(s) of flight rules Z - VFR first, followed by one or more subsequent change(s) of flight rules
Float	Represents single-precision, 32-bit floating-point numbers.
Frequency	This data type describes the radio frequency, expressed as a float value, used for communications and navigation between aircraft-ground, ground-ground, or aircraft-aircraft. The range of values is [3-3000], expressed in megahertz (MHz).
Integer	One or a set of positive whole numbers {1, 2, 3,...}, negative whole numbers {-1, -2, -3, ...}, and zero {0}.
Location	This data type describes a geographic location. For the purposes of FIXM, the location can be defined in any of the following ways: **Location Identifier**: a predefined 2-5 character string. This string can be a fix name. Location identifiers are published in ICAO document 7910. **Latitude/Longitude**: defined by a pair of latitude and longitude coordinates. **Fix-radial-distance**: defined by three values: a navigation aid identifier (typically a VOR), a magnetic heading (expressed as a “Direction”), and a distance (expressed in nautical miles).
Numeric Character	One numeric character in the range [0-9].
Numeric String	String of numeric characters in the range [0-9].
Sector	Alphanumeric string identifying a sector. It is always associated with a “Unit” (defined below). The sector is represented by the last two (2) digits. Otherwise, it contains the sector name or operational position.
Speed	Represents an instantaneous rate of for an aircraft, expressed as a float, with a range of [0-2,200] when expressed in knots, [0-3.8] when expressed in Mach.
Time Duration	Represents duration of time. The pattern for duration is nYnMnDTnHnMnS, where nY represents the number of years, nM the number of months, nD the number of days, T the date/time separator, nH the number of hours, nM the number of minutes, and nS the number of seconds.
Unit	This data type contains the 4 character code from ICAO 7910 that identifies the unit, if one is available. If a code is not available, an alphanumeric string

	contains the unit name or alternate Unit identifier.
Vertical Rate	The value of an aircraft's vertical rate of change (climb if positive, descent if negative) expressed as a float, [(-30,000)-30,000] when expressed in ft/min., [(-15)-15] if expressed in m/s.

3 Data Elements

3.1 Abrogation Reason

Abrogation Reason	
Definition	If the Coordination Status is abrogated, indicating coordination is abolished by authoritative action, the reason the coordination was terminated.
Alternate Names	
Has Parts	
Is Part Of	Coordination Status
Data Type(s)	Enumeration
Range of Values	{TFL, Route, Cancellation, Delay, Hold, Other}
Business Rules	
Notes	Enumerated values include: • TFL: the reason is a change of transfer level; • Route: the reason is a change of route; • Cancellation: the reason is cancellation of the flight; • Delay: the reason is a delay prior to departure; • Hold: the reason is a hold; • Other: any other reason, or the reason is unknown.
Reference	• Asia/Pacific Regional Interface Control Document (ICD) For ATS Interfacility Data Communications (AIDC), version 3, September 2007 • North American (NAM) Common Coordination Interface Control Document (ICD) VOLUME 1: Area Control Centre (ACC) to ACC, 1/20/12 • The North Atlantic Common Coordination Interface Control Document, Version 1.2.8 December 2010 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.2 Action Taken By Reporting Unit

Action Taken By Reporting Unit	
Definition	A description of the actions taken by the reporting Air Traffic Service (ATS) unit, in the event of search and rescue.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	[ICAO] When the information is not available, value should be NIL or NOT KNOWN.
Notes	• This data element contains free-form text. • [ICAO Standard ATS Messages] Transmitted in Alerting Messages (ALR) as ICAO Field Type 20g. • [SESAR Harmonization] Element is not present in the SESAR 10.02.05 FO. Element has been added to a list for consideration for inclusion in the SESAR model.
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.3 Activity

Activity	
Definition	The measure of the rate of decay, or activity, of a radioactive material.
Alternate Names	
Has Parts	
Is Part Of	Radionuclide
Data Type(s)	Float
Range of Values	
Business Rules	
Notes	• For the attribute unit of measurement - Indicates the Unit of Measure (UOM) from the Code List. • United Nations (UN) Economic Commission for Europe (UNECE) Recommendation Number 20 - Codes for Units of Measure Used in International Trade - Annex I can be used. • In case of transport of radioactive materials, the units of measure to be used are Becquerel or multiples of Becquerel. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name =ram:ApplicableRadioactiveisotope /ram:ActivityLevelMeasure
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • UNECE Recommendation Number 20, Annex I • IATA Dangerous Goods Regulations, January 2011 • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.4 Additional Handling Information

Additional Handling Information	
Definition	Additional information related to the handling of dangerous goods, as identified on the Shipper's Declaration for Dangerous Goods.
Alternate Names	Handling Information, Other Information, Handling Instructions
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Packaging Detail, Dangerous Goods Package Details
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• Limit length to 100 characters to reduce risk of code insertion.
Notes	• This data element contains free-form text. • This element comes from the Additional Handling Information field on the Shipper's Declaration for Dangerous Goods form. May include such items as 'Control Temperature' for substances stabilized by temperature control, or name and telephone number of a responsible person for infectious substances, or any other handling information not specified elsewhere. • Often times, the emergency phone number is listed in this field on the Shipper's Declaration for Dangerous Goods. IATA does not specify a size limitation. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:HandlingInstructions /ram:Description
Reference	• IATA SDDG Specification v2.1 • Shipper's Declaration for Dangerous Goods

3.5 Aerodrome Arrival Fix

Aerodrome Arrival Fix	
Definition	The point at which the responsibility for control of the flight is transferred from the En Route Air Traffic Control unit (Centre, ARTCC) to the Terminal Air Traffic Control unit.
Alternate Names	Airport Arrival Fix, AFIX, Arrival (feeder) Fix
Has Parts	
Is Part Of	
Data Type(s)	Location
Range of Values	
Business Rules	• In the United States, this data element is determined by Traffic Flow Management System (TFMS) based on the route of flight.
Notes	• Used to determine and display the airport arrival fixes demand to traffic managers and airspace users. • This concept does not align with operational concepts in Europe and will be revisited in a later version
Reference	• CSC “Traffic Flow Management Modernization FDB to FTM Data Message Definitions”, Feb 12, 2008 • CSC “Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version”, Ver. 1.8, April 15, 2011

3.6 Aerodrome Departure Fix

Aerodrome Departure Fix	
Definition	The point at which the responsibility for control of the flight is transferred from the Terminal Air Traffic Control unit to the En Route Air Traffic Control unit (Centre, ARTCC).
Alternate Names	Airport Departure Fix, DFIX
Has Parts	
Is Part Of	
Data Type(s)	Location
Range of Values	
Business Rules	• In the United States, this data element is determined by TFMS based on the route of flight.
Notes	• Used to determine and display the airport departure fixes demand to traffic managers and airspace users. • This concept does not align with operational concepts in Europe and will be revisited in a later version
Reference	• CSC "Traffic Flow Management Modernization FDB to FTM Data Message Definitions", Feb 12, 2008 • CSC "Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version", Ver. 1.8, April 15, 2011

3.7 Aerodrome of Loading

Aerodrome of Loading	
Definition	The aerodrome where dangerous goods were loaded onto the flight.
Alternate Names	Loading Location Name, Loading Location Code
Has Parts	
Is Part Of	
Data Type(s)	Aerodrome
Range of Values	If expressed as ICAO location identifier, values comply with ICAO Doc. 7910 - Location Indicators
Business Rules	• Per ICAO Doc. 7910: Location Indicators, Edition No. 138, 2010, NNN should not be used as the second, third and fourth letters of a location indicator such as the name of the destination aerodrome.
Notes	• [FAA] Not all four-letter identifiers in the United States have been published in ICAO Doc. 7910. Therefore, location identifiers may be per national Aeronautical Information Publications (AIP). • When expressed as a free-form alphanumeric string, it contains the actual name of the departure aerodrome (e.g., Flagstaff Pulliam Airport). • IATA Model Namespace =xmlns:ram='iata:datamodel:3' XML Element = ram:LoadingEvent /ram:OccurrenceLoadingLocation /ram:Name
Reference	• IATA SDDG Specification v2.1 • ICAO Doc 7910 - Location Identifiers • IATA Dangerous Goods Regulations, January 2011

3.8 Aerodrome of Unloading

Aerodrome of Unloading	
Definition	The aerodrome where dangerous goods were unloaded from the flight.
Alternate Names	Unloading Location Code, Unloading Location Name
Has Parts	
Is Part Of	
Data Type(s)	Aerodrome
Range of Values	If expressed as ICAO location identifier, values comply with ICAO Doc. 7910 - Location Indicators
Business Rules	• Per ICAO Doc. 7910: Location Indicators, Edition No. 138, 2010, NNN should not be used as the second, third and fourth letters of a location indicator such as the name of the destination aerodrome.
Notes	• This may not necessarily be the destination airport, but rather where the package will be next unloaded off the plane (either for a transfer or a final destination). • [FAA] Not all four-letter identifiers in the United States have been published in ICAO Doc. 7910. Therefore, location identifiers may be per national Aeronautical Information Publications (AIP). • When expressed as a free-form alphanumeric string, it contains the actual name of the departure aerodrome (e.g., Flagstaff Pulliam Airport). • IATA model Namespace = xmlns:rsm='iata:shippersdeclarationfordangerousgoods:1', xmlns:ram='iata:datamodel:3', rsm:ShippersDeclarationForDangerousGoods /rsm:SpecifiedLogisticsConsignment /ram:IncludedSupplyChainConsignment /ram:PreCarriageLogisticsTransportMovement /ram:UnloadingTransportEvent /ram:OccurrenceLogisticsLocation /ram:Name ...ram:UnloadingTransportEvent /ram:OccurrenceLogisticsLocation /ram:ID
Reference	• IATA SDDG Specification v2.1 • ICAO Doc 7910 - Location Identifiers • IATA Dangerous Goods Regulations, January 2011

3.9 Air Waybill Number

Air Waybill Number	
Definition	The number referencing the air waybill.
Alternate Names	Document Reference Number, Air Consignment Number, AWB
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Header
Data Type(s)	Numeric String
Range of Values	
Business Rules	• Limit length to 11 characters to reduce the risk of code insertion.
Notes	• The air waybill is a contract between the shipper and airline that states the terms and conditions of transportation. It is a receipt and evidence of the carriage of goods but is not a document of title to the goods. • This element contains free-form text. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:AssociatedReferencedDocument /ram:IssuerAssignedID
Reference	• IATA SDDG Specification v2.1 • IATA Shipper's Declaration for Dangerous Goods

3.10 Airborne Indicator

Airborne Indicator	
Definition	An indication of whether the flight is airborne or not.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Boolean
Range of Values	
Business Rules	
Notes	
Reference	• EUROCAE- ED-133 - Flight Object Interoperability Specification

3.11 Aircraft Address

Aircraft Address	
Definition	A code that enables the exchange of text-based messages between suitably equipped Air Traffic Service (ATS) ground systems and aircraft cockpit displays.
Alternate Names	24-bit Address, Mode S Address
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	[F00001-FFFFFF] (hexadecimal numbers)
Business Rules	Assigned in accordance with the provisions of ICAO Annex 10, Volume 3, Aeronautical Telecommunications.
Notes	• In addition to the standard hexadecimal representation, the Aircraft Address is sometimes published in its octal or decimal representation. • [ICAO Standard ATS Messages] Transmitted in ALR, FPL, CPL, SPL as ICAO Field Type 18, preceded by 'CODE/'. • [SESAR harmonization] Element is present in the SESAR 10.02.05 FO model as Aircraft::24BitsAddress and FGI::OtherInformation.code
Reference	• Annex 10 to the Convention on International Civil Aviation: Aeronautical Telecommunications, Vol. III, Communication Systems, Second Edition, 2007 • Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.12 Aircraft Colour and Markings

Aircraft Colour and Markings	
Definition	The colours of the aircraft and a description of the aircraft's significant markings.
Alternate Names	Significant Markings
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• This data element contains free-form text. • Supplementary information is stored with the flight planning service (wherever the flight plan is entered, e.g., FSS, DUATS, AOC, etc.). • [ICAO Standard ATS Messages] Transmitted in ALR and SPL as ICAO Field Type 19g, preceded by 'A/'. This information is part of the supplementary flight plan data and shall be kept readily available by the operator at the departure aerodrome or another agreed location, so that it can be supplied without delay when requested by ATS units. • [AFTN] When transmitted by the AFTN (aeronautical fixed telecommunications network), the message shall be assigned the same priority indicator as that in the request message. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::SupplementaryInformation.aircraft_colour and FGI::SupplementaryInformation.significant_markings
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.13 Aircraft Dangerous Goods Limitation

Aircraft Dangerous Goods Limitation	
Definition	Describes whether the shipment is packed to comply with the limitations prescribed for passenger and cargo aircraft or the limitations for cargo aircraft only.
Alternate Names	Aircraft Limitations Information, Aircraft Limitations Compliance, Aircraft DG Limitation
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Header
Data Type(s)	Enumeration
Range of Values	{PASSENGER AND CARGO AIRCRAFT, CARGO AIRCRAFT ONLY}
Business Rules	
Notes	• IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:AircraftLimitationInformation
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • Shipper's Declaration for Dangerous Goods

3.14 Aircraft Identification

Aircraft Identification	
Definition	Name used by ATS units to identify and communicate with an aircraft.
Alternate Names	Call sign, ACID
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	

Notes	• This field identifies the flight from a controller's point-of-view (POV). (In FIXM, the Flight Object will be uniquely identified by the Globally Unique Flight Identifier (GUFI).
	• [ICAO Standard ATS Messages] Transmitted in ALR, RCF, FPL, CHG, CNL, DLA, DEP, ARR, CPL, EST, CDN, ACP, RQP, RQS, and SPL as ICAO Field Type 7a.
	• [NAS CMS] Field 02a.
	• [ICAO]
	  ○ The ICAO designator for the aircraft operating agency followed by the flight identification (e.g. KLM511, NGA213, JTR25); when in radiotelephony, the call sign to be used by the aircraft will consist of the ICAO telephony designator for the operating agency followed by the flight identification (e.g. KLM511, NIGERIA 213).
	  ○ The nationality or common mark and registration marking of the aircraft (e.g., EIAKO, 4XBCD, N2567GA), when:
	  ▪ in radiotelephony, the call sign to be used by the aircraft will consist of this identification alone (e.g., CGAJS) or preceded by the ICAO telephony designator for the aircraft operating agency (e.g., BLIZZARD CGAJS);
	  ▪ the aircraft is not equipped with radio
	• [FAA] In lieu of ICAO rules above, the aircraft identification may be the call sign determined by the military authorities used to identify the aircraft during flight (e.g., HUSKY41, STEEL52, and S12345).
	• [SESAR harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::Acid.Identifier

Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • ICAO Doc. 8585, Designators for Aircraft Operating Agencies, Aeronautical

	Authorities and Services • Annex 7 to the Convention on International Civil Aviation, 5th Edition, 2003 • Annex 10 to the Convention on International Civil Aviation: Aeronautical Telecommunications, Vol. II, Communication Procedures including those with PANS status, Sixth Edition, 2001 • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.15 Aircraft Identification - Marketing Carrier

Aircraft Identification - Marketing Carrier	
Definition	The aircraft identification used by a carrier who has sold tickets for the flight but is not involved with the operation of the flight.
Alternate Names	Code share partner; flight identification
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• There may be none to many of these data elements. • The carrier code encoded into the Aircraft Identification – Marketing Carrier field cannot be the same as the carrier code encoded in the Aircraft Identification.
Notes	• The format assumes the Marketing Carrier has a two-letter code (as defined by IATA) and is followed by a flight identifier: [A-Z]{2}[0-9][0-9A-Z]{0,3}; for example, AA123.
Reference	

3.16 Aircraft Operator Identity

Aircraft Operator Identity	
Definition	Identity of a person, organization or enterprise engaged in or offering to engage in aircraft operation.
Alternate Names	Operator
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	Per ICAO Doc. 8585 - Designators for Aircraft Agencies, Aeronautical Authorities and Services: This data element is transmitted only when the operator is not obvious or is different from what is used as the Aircraft Identification.
Notes	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18, preceded by 'OPR/'. Also transmitted in ALR as Field Type 20a. • [SESAR harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::OtherInformation.name_of_operator
Reference	• ICAO Doc. 8585 - Designators for Aircraft Agencies, Aeronautical Authorities and Services • Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.17 Aircraft Performance Category

Aircraft Performance Category	
Definition	A coded category assigned to the aircraft based on a speed directly proportional to its stall speed, which functions as a standardized basis for relating aircraft manoeuvrability to specific instrument approach procedures.
Alternate Names	Aircraft Performance Data, Performance Category
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	{A, B, C, D, E, H}
Business Rules	

Notes	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18, preceded by 'PER/'.
	• [SESAR harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::OtherInformation.aircraft_performance_data
	• [Range of Values] The letters in the range of values represent the following:
	  ○ A - Less than 169 km/h (91 kts) indicated airspeed (IAS)
	  ○ B - 169 km/h (91 kts) or more but less than 224 km/h (121 kts) IAS
	  ○ C - 224 km/h (121 kts) or more but less than 261 km/h (141 kts) IAS
	  ○ D - 261 km/h (141 kts) or more but less than 307 km/h (166 kts) IAS
	  ○ E - 307 km/h (166 kts) or more but less than 391 km/h (211 kts) IAS
	  ○ H - Helicopters

Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007 • Procedures for Air Navigation Services Aircraft Operations: Flight Procedures Doc. 8168

3.18 Aircraft Planned Reporting Position

Aircraft Planned Reporting Position	
Definition	Estimated future position, altitude and time of the aircraft transmitted in a non-radar airspace position report.
Alternate Names	
Has Parts	Next Future Reporting Position, Next Future Reporting Position Altitude, Next Future Reporting Position Time - Estimated, Following Future Reporting Position, Following Future Reporting Position Altitude, Following Future Reporting Position Time - Estimated
Is Part Of	
Data Type(s)	Container
Range of Values	
Business Rules	

Notes	• Represents the estimated future location for an aircraft with associated date and time.
	• Based on position report data provided by the pilot/aircraft in non-radar airspace. The data includes the next position, the time estimated for the next position and the following position.
	• This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ○ Next Future Reporting Position: Location, specified as Latitude/Longitude
	  ○ Next Future Reporting Position Altitude: Altitude
	  ○ Next Future Reporting Position Time - Estimated: Date Time
	  ○ Following Future Reporting Position: Location, specified as Latitude/Longitude
	  ○ Following Future Reporting Position Altitude: Altitude
	  ○ Following Future Reporting Position Time - Estimated: Date Time

Reference	• FAA and Japan Civil Aviation Bureau "Interface Control Document for FAA-JCAB Data Exchange, Ver. 1.0, February 16, 2011 • CSC "Traffic Flow Management Modernization FDB to FTM Data Message Definitions", Feb 12, 2008 • CSC "Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version", Ver. 1.8, April 15, 2011

3.19 Aircraft Quantity

Aircraft Quantity	
Definition	Number of aircraft flying in a formation in which the aircraft are governed by one flight plan.
Alternate Names	Number of Aircraft
Has Parts	
Is Part Of	
Data Type(s)	Integer
Range of Values	[2 - 999]
Business Rules	
Notes	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 9a. • [NAS CMS] Field 03a. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::NumberOfAircraft.number
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • FAA Order JO 7110.65T, Air Traffic Control, February 2010 • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.20 Aircraft Registration Mark

Aircraft Registration Mark	
Definition	A unique, alphanumeric string that identifies a civil aircraft and consists of the Aircraft Nationality or Common Mark and an additional alphanumeric string assigned by the state of registry or common mark registering authority.
Alternate Names	Registration Number, Tail Number, Registration
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• The Supplement to Annex 7 to the Convention on International Civil Aviation provides the national prefixes and common marks and describes the formats for each state and common mark registering authority. • Aircraft must establish registration with a national aviation authority or common mark registering authority. • This data element is transmitted only when the Aircraft Identification (ACID) is not equal to the tail number.
Notes	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18, preceded by 'REG/'. • [FAA] The FAA maintains an on-line aircraft registry at http://www.faa.gov/licenses_certificates/aircraft_certification/aircraft_registry/. • [SESAR Harmonization] Element is not present in the SESAR 10.02.05 FO. Element has been added to a list for consideration for inclusion in the SESAR model.
Reference	• Supplement to Annex 7 to the Convention on International Civil Aviation - Aircraft Nationality and Registration Marks • Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Annex 7 to the Convention on International Civil Aviation, 5th Edition, 2003 • Annex 10 to the Convention on International Civil Aviation: Aeronautical Telecommunications, Vol. II, Communication Procedures including those with PANS status, Sixth Edition, 2001 • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.21 Aircraft Type

Aircraft Type	
Definition	The manufacturer and model of the airframe expressed either as an ICAO-approved designator or a text description.
Alternate Names	Type of Aircraft
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	Valid range of identifiers described in ICAO Doc. 8643 - Aircraft Type Designators.
Business Rules	Approved aircraft type designators are defined in ICAO Doc. 8643 - Aircraft Type Designators.
Notes	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 9b. If no designator has been assigned or if there is more than one type of aircraft in the flight, the string 'ZZZZ' is used in Item 9b. In this case, the type(s) of aircraft is (are) to be shown in Field Type 18, preceded by 'TYP/' and, if necessary, the number of aircraft of the type specified. • [NAS CMS] This data element corresponds to Field 03c. • [SESAR Harmonization] Element is present in SESAR 10.02.05 FO model as FGI::AircraftType.type
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007 • Aircraft Type Designators - Doc. 8643

3.22 Airfile Indicator

Airfile Indicator	
Definition	An indication the information about this flight was filed from the air.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Boolean
Range of Values	
Business Rules	
Notes	• Notes - [ICAO Standard ATS Messages] If the flight plan is filed while the aircraft is in flight, the string AFIL is inserted in field 13a, and the four-letter ICAO location indicator of the ATS unit, from which supplementary flight plan data can be obtained, is inserted in field 18, preceded by the string 'DEP/'.
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.23 Airfile Route Start Time

Airfile Route Start Time	
Definition	The actual or estimated time of departure from the first point on the route for a flight filed in the air.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	• [ICAO Standard ATS Messages] This data element is a combination of ICAO Field Type 13b (time) and 18 DOF/ (date). Currently, the ICAO Flight Plan (FPL) allows specification of the date of flight through a two digit prefix to the departure time. The time is transmitted in FPL messages derived from flight plans filed in the air, as shown by the letters AFIL in ICAO Field Type 13a.
Notes	
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.24 Airspace Entry Time - Controlled

Airspace Entry Time - Controlled	
Definition	The time at which a flight is required to arrive at a constrained airspace element as a result of a tactical slot allocation or a Traffic Management Initiative (TMI).
Alternate Names	Airspace Element Controlled Entry Time, ENTRY, Flow Constrained Area (FCA) Controlled Entry Time
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	• In the United States, this data element is present for a flight when a flight is subject to a TMI. If a flight is not subject to a TMI, this field is null.
Notes	• In U.S. Collaborative Decision Making (CDM), for an Airspace Flow Program (AFP), this element represents the time the flight should arrive at the controlled FCA boundary.
Reference	• CSC, Traffic Flow Management System-to-Airline Operation Centre Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012 • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.25 Airway

Airway	
Definition	The coded designator for a published ATS route or route segment.
Alternate Names	ATS Route Designator, Track
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• An Airway can be a standard departure or arrival route designator. This data element is a type of route designator, and the composition and use of route designator codes is described in ICAO Annex 11 - Air Traffic Services. • [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 15c1, 15c2, and 15c7.
Reference	• Annex 11 to the Convention on International Civil Aviation, 13th Edition, 2001 • Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.26 All Packed In One

All Packed In One	
Definition	A statement identifying that the dangerous goods listed are all contained in the same outer packaging.
Alternate Names	
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Packaging Detail, Dangerous Goods Package Details
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• Limit length to 100 characters to reduce the risk of code insertion.
Notes	• Takes the form 'All packed in one aaaa (description of packaging type) x nn (number of packages)'. • IATA model Namespace = xmlns:ram='iata:datamodel:3' IATA XML element name = ram:SpecifiedLogisticsPackage /ram:AllPackedInOneInformation
Reference	• IATA SDDG Specification v2.1 • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods

3.27 Approach Time - Estimated

Approach Time - Estimated	
Definition	The shared time estimate at which the flight's final approach is expected to commence.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	• Related to the Initial Approach Fix (IAF) and related to any time to gain / time to lose provisions and/or for identification when arriving aircraft which are subject to (arrival) holding will be expected to start their (final) approach procedure.
Notes	• This information is shared with the aircraft, controllers (both en route and approach) and for airport operations. • It indicates the time after which the aircraft should no longer be expected to be subject to arrival delay / holding and should, therefore, commence the remaining part of its approach to landing on the runway. • In other words, the time after which the flight should have a frozen / established position within the on-going arrival sequence, and when an increased certainty of the expected landing time should become available • In Europe this estimate (usually provided by Approach ATC) is used as an indication of the time at which the aircraft would be estimated to pass the Initial Approach Fix (IAF), or leave the approach hold and start on a continuous approach path to the runway.
Reference	

3.28 Arrival Aerodrome

Arrival Aerodrome	
Definition	The ICAO designator or the name of the aerodrome at which the flight has arrived.
Alternate Names	Arrival Airport
Has Parts	
Is Part Of	
Data Type(s)	Aerodrome
Range of Values	If expressed as ICAO location identifier values comply with ICAO Doc. 7910 - Location Indicators.
Business Rules	An Aerodrome location identifier is per ICAO Doc. 7910 - Location Indicators. If none is available for the aerodrome, this data element will be free-form text following standard FIXM usage for locations.
Notes	• [ICAO Standard ATS Messages] Transmitted in ARR as ICAO Field Type 17a. Expressed as a four-letter ICAO location indicator. The letters 'ZZZZ' are used, if no indicator has been allocated to the arrival aerodrome. If the letters ZZZZ are used, the name of the arrival aerodrome is inserted in ICAO Field Type 17c. • When expressed as a free-form alphanumeric string, it contains the actual name of the arrival aerodrome (e.g., 'Baltimore Washington International Thurgood Marshall Airport'). • This data element is similar to Destination Aerodrome, and the two have equal values in most cases. However, they remain conceptually different as standalone data elements.
Reference	• ICAO Doc. 7910 - Location Indicators, Edition No. 138, 2010 • Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.29 Arrival Fix Time - Actual

Arrival Fix Time - Actual	
Definition	Actual time the flight passed over the arrival fix.
Alternate Names	Actual Arrival Fix Time, AAFT, Feeder Fix Time
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	• This concept is associated with the Aerodrome Arrival Fix data element. It does not align with operational concepts in Europe and it will be revisited in a later version.
Reference	

3.30 Arrival Fix Time - Estimated

Arrival Fix Time - Estimated	
Definition	Estimated time over the arrival fix.
Alternate Names	Estimated Arrival Fix Time, EAFT, AFIX Time, Metering Fix, Time Over Metering Fix
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	• In the United States, the Arrival Fix Time - Estimated is determined by the TFMS.
Notes	• This data element is associated with the Aerodrome Arrival Fix data element. It does not align with operational concepts in Europe, and it will be revisited in a later version.
Reference	• CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011 • EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010

3.31 Arrival Runway

Arrival Runway	
Definition	The expected, assigned, or actual runway for an arriving flight.
Alternate Names	ARWY
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	[0-9]{2}[LCR]? (2 figures 01 to 36 may be followed by Letters L, C or R)
Business Rules	• Only present when known.
Notes	• This data element is associated with the Aeronautical Information Exchange Model (AIXM) "Runway" data element. • Usually assigned prior to arrival. Can be used for the allocation of Standard Terminal Arrival Route (STAR). Can also be used to calculate taxi-in times (durations). • Updated with the actual arrival runway upon landing, if different from the expected or assigned runway.
Reference	AIXM 5.1 (www.aixm.aero)

3.32 Arrival Sequence Number

Arrival Sequence Number	
Definition	The expected sequence of the flight in the scheduling list of arriving flights.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Integer
Range of Values	
Business Rules	
Notes	
Reference	• EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010

3.33 Arrival Stand

Arrival Stand	
Definition	The stand at which an aircraft arrives at the destination airport on completion of the flight.
Alternate Names	Arrival Gate
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• Associated with 'time' events relating to arrival at stand (also known as on blocks time events).
Notes	• This data element is associated with the AIXM "Aircraft Stand" data element.
Reference	AIXM 5.1 (www.aixm.aero)

3.34 Arrival Terminal

Arrival Terminal	
Definition	The airport terminal at which the flight arrives.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• Terminal information is valuable for traffic flow management processing, if the gate/stand is not known. • This data element is associated with the AIXM "CodeAircraftBaseType" data element.
Reference	AIXM 5.1 (www.aixm.aero)

3.35 ATN Logon Parameters

ATN Logon Parameters	
Definition	The ATN logon parameters allow the ground unit to log on to the data link equipped aircraft to use the data link applications.
Alternate Names	Aeronautical Telecommunications Network Logon Parameters
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	The ATN Logon Parameters are a structured string that includes the following information: • Transport Layer Address: The Context Management application of the aircraft expressed as 38 hexadecimal characters. • Aeronautical Telecommunication Network (ATN) ATI Application Type: The ATN ATI application type and version. • ATN CPDLC Application Type: The ATN CPDLC application type, version and corresponding address. • ATN ADS Application Type: ATN ADS Application type, version and address. • ATN Air-Ground Application Type: where, ADS=0 ; CPDLC = 2 or 22; ATI = 3. • AG Application Version: If the aircraft does not use a certain application, this parameter contains the version number of each air - ground application as follows: ‘00’ if the application is not available; ADS application=’01’ or ‘02’; CPDLC application =’01’ (representing value 1); ATI application = ‘01’ or ‘02’.
Reference	• EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010

3.36 Beacon Code

Beacon Code	
Definition	The assigned four-character numeric code transmitted by the aircraft transponder in response to a secondary surveillance radar interrogation signal which is used to assist air traffic controllers to identify aircraft.
Alternate Names	Squawk Code, Transponder Code, Mode 3A, Mode A
Has Parts	
Is Part Of	
Data Type(s)	Numeric String
Range of Values	[0000 - 7777] (expressed as octal numbers)
Business Rules	• Codes 7500, 7600, and 7700 are universally reserved for special purposes (e.g., indication of a hijack or other emergency). • Other codes are also reserved for special purposes, under various national and international regulations.
Notes	• The discrete transponder code (often called a squawk code) is assigned by air traffic controllers to uniquely identify an aircraft. • Beacon Codes are four-digit octal numbers. Thus, the lowest possible squawk is 0000 and the highest is 7777. • Four octal digits can represent up to 4096 different codes. • [ICAO Standard ATS Messages] Transmitted in ALR, RCF, FPL, CHG, CNL, DLA, DEP, ARR, CPL, EST, CDN, ACP, RQP, RQS, and SPL as ICAO Field Type 7c. • [NAS CMS] This data element corresponds to Field 04a. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as SSRCode::SSRCode.code
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007 • FAA Order JO 7110.66D, National Beacon Code Allocation Plan, 2009

3.37 Boarding Start Time - Actual

Boarding Start Time - Actual	
Definition	Time passengers are entering the bridge or bus to the aircraft.
Alternate Names	Actual Start Boarding Time, ASBT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	
Reference	• A-CDM Implementation Manual

3.38 Boundary Crossing - Assigned Speed/Coordinated

Boundary Crossing - Assigned Speed/Coordinated	
Definition	Clearance information assigning a speed and speed condition to the flight at the boundary point. The speed condition indicates whether the aircraft will be maintaining, exceeding, or flying more slowly than the assigned boundary crossing speed.
Alternate Names	
Has Parts	
Is Part Of	Boundary Crossing Point/Coordinated
Data Type(s)	Complex
Range of Values	Speed Condition {L, G, E}
Business Rules	

Notes	• This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ○ Speed Value: Speed
	  ○ Speed Condition: Enumeration
	• The Speed Condition comes from a Controlled List containing:
	  ○ L= aircraft will be maintaining the notified speed or less;
	  ○ G = aircraft will be maintaining the notified speed or greater; or,
	  ○ E = aircraft will be maintaining the notified speed.
	• The method of measurement is Indicated Airspeed (IAS), usually in knots, or mach.

Reference	• Asia/Pacific Regional Interface Control Document (ICD) For ATS Interfacility Data Communications (AIDC), version 3, September 2007

3.39 Boundary Crossing - Off Track Deviation – Proposed

Boundary Crossing - Off Track Deviation – Proposed	
Definition	Provides the offset clearance information, if the flight is proposed to be offset at the boundary crossing point. For the boundary crossing point, the off track deviation information includes the deviation direction the flight will be offset, the distance and the reason for the offset.
Alternate Names	
Has Parts	
Is Part Of	Boundary Crossing Point – Proposed
Data Type(s)	Complex
Range of Values	Off Track Deviation Direction {L, R, E} ; Off Track Deviation Distance [1-999] ; Off Track Deviation Reason {O, W}
Business Rules	

Notes	• This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ○ Off Track Deviation Direction: Enumeration
	  ○ Off Track Deviation Distance: Integer
	  ▪ The Off Track Deviation Distance unit is nautical miles.
	  ○ Off Track Deviation Reason: Enumeration
	• The Off Track Deviation Direction comes from a Controlled List containing: L = Left; R= Right; or, in the case of weather deviation, E = Either side of track.
	• The Off Track Deviation Distance is expressed as 1-3 digits in nautical miles.
	• The Off Track Deviation Reason come from a Controlled List containing: O = Offset; W = Weather.

Reference	• Asia/Pacific Regional Interface Control Document (ICD) For ATS Interfacility Data Communications (AIDC), version 3, September 2007 • The North Atlantic Common Coordination Interface Control Document, Version 1.2.8 December 2010 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.40 Boundary Crossing - Off Track Deviation/Coordinated

Boundary Crossing - Off Track Deviation/Coordinated	
Definition	Provides the offset clearance information, if the flight will be offset at the boundary crossing point. For the boundary crossing point, the off track deviation information includes the deviation direction the flight will be offset, the distance and the reason for the offset.
Alternate Names	
Has Parts	
Is Part Of	Boundary Crossing Point/Coordinated
Data Type(s)	Complex
Range of Values	Off Track Deviation Direction {L, R, E} ; Off Track Deviation Distance [1-999] ; Off Track Deviation Reason {O, W}
Business Rules	

Notes	• This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ○ Off Track Deviation Direction: Enumeration
	  ○ Off Track Deviation Distance: Integer
	  ▪ The Off Track Deviation Distance unit is nautical miles.
	  ○ Off Track Deviation Reason: Enumeration
	• The Off Track Deviation Direction comes from a Controlled List containing: L = Left; R= Right; or, in the case of weather deviation, E = Either side of track.
	• The Off Track Deviation Distance is expressed as 1-3 digits in nautical miles.
	• The Off Track Deviation Reason come from a Controlled List containing: O = Offset; W = Weather.

Reference	• Asia/Pacific Regional Interface Control Document (ICD) For ATS Interfacility Data Communications (AIDC), version 3, September 2007 • The North Atlantic Common Coordination Interface Control Document, Version 1.2.8 December 2010 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.41 Boundary Crossing Level - Cleared Block/Coordinated

Boundary Crossing Level - Cleared Block/Coordinated	
Definition	A vertical range of levels transmitted as the boundary crossing level.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Complex
Range of Values	
Business Rules	

Notes	• Specified as a lower level followed by the upper level.
	  ○ Example MINNY/2125F320F340, the aircraft is operating in a block of levels between F320 and F340 (inclusive).
	• This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ○ Boundary Crossing Lower Level: Altitude
	  ○ Boundary Crossing Upper Level: Altitude

Reference	• 1) Asia/Pacific Regional Interface Control Document (ICD) For ATS Interfacility Data Communications (AIDC), version 3, September 2007 • 2) The North Atlantic Common Coordination Interface Control Document, Version 1.2.8 December 2010

3.42 Boundary Crossing Level - Cleared/Coordinated

Boundary Crossing Level - Cleared/Coordinated	
Definition	The cleared altitude (flight level) at which the aircraft will cross the boundary crossing point if in level cruising flight or, if the aircraft is climbing or descending at the boundary crossing point, the cleared flight level to which it is proceeding.
Alternate Names	Cleared Level
Has Parts	
Is Part Of	
Data Type(s)	Altitude
Range of Values	
Business Rules	
Notes	• [ICAO Standard ATS Messages] Transmitted in CPL, and EST as ICAO Field Type 14c. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as CoordinationAndTransfer::CoordinationData.TFL • Flight levels are pressure altitudes with respect to the pressure datum 1013.2 expressed in hPa. Altitudes are pressure altitudes with respect to local surface pressure measurements. • This concept reflects coordination between ATCs.
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.43 Boundary Crossing Level - Proposed

Boundary Crossing Level - Proposed	
Definition	If the aircraft is at level cruising, the proposed altitude (flight level) at which the aircraft will cross the boundary crossing point. If the aircraft is climbing or descending at the boundary crossing point, then the proposed cruise flight level to which it is proceeding when it crosses the boundary crossing point.
Alternate Names	Boundary Crossing Altitude - Proposed
Has Parts	
Is Part Of	Boundary Crossing Point - Proposed
Data Type(s)	Altitude
Range of Values	
Business Rules	• If accepted by the transferring controller, becomes the Boundary Crossing Level - Cleared/Coordinated for this facility crossing.
Notes	• Requested by the accepting controller from the transferring controller.
Reference	• EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010

3.44 Boundary Crossing Level - Transition - Proposed

Boundary Crossing Level - Transition - Proposed	
Definition	The proposed altitude (flight level) at or above/below which an aircraft will cross the associated boundary point, as requested by the accepting controller from the transferring controller.
Alternate Names	
Has Parts	
Is Part Of	Boundary Crossing Point - Proposed
Data Type(s)	Complex
Range of Values	Altitude Condition {A, B}
Business Rules	• If accepted by the transferring controller, becomes the Boundary Crossing Level - Transition/Coordinated for this facility crossing.

Notes	• This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ○ Altitude Value: Altitude
	  ○ Altitude Condition: Enumeration
	• The Altitude Condition comes from a Controlled List containing:
	  ○ A - at or above
	  ○ B - at or below

Reference	• EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010

3.45 Boundary Crossing Level - Transition/Coordinated

Boundary Crossing Level - Transition/Coordinated	
Definition	An altitude (flight level) at or above/below which an aircraft will cross the associated boundary point.
Alternate Names	Supplementary Crossing Data
Has Parts	
Is Part Of	
Data Type(s)	Complex
Range of Values	Altitude Condition {A, B}
Business Rules	

Notes	• This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ○ Altitude Value: Altitude
	  ○ Altitude Condition: Enumeration
	• The Altitude Condition comes from a Controlled List containing:
	  ○ A - at or above
	  ○ B - at or below
	• [ICAO Standard ATS Messages] Transmitted in CPL, and EST as ICAO Field Type 14d.
	• Flight levels are pressure altitudes with respect to the pressure datum 1013.2 expressed in hPa. Altitudes are pressure altitudes with respect to local surface pressure measurements.
	• [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as CoordinationAndTransfer::CoordinationData.STFL
	• [ICAO Standard ATS Messages] Transmitted in CPL, and EST as ICAO Field Type 14e. This data is allowed by ICAO but not used in NAS.
	• [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as CoordinationAndTransfer::CoordinationData.crossing_condition

Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.46 Boundary Crossing Point - Proposed

Boundary Crossing Point - Proposed	
Definition	The proposed point where the flight will cross an ATS facility boundary, as requested by the accepting controller from the transferring controller.
Alternate Names	
Has Parts	Boundary Crossing Time - Proposed, Boundary Crossing Level - Proposed, Boundary Crossing Level - Transition - Proposed
Is Part Of	
Data Type(s)	Container, Location
Range of Values	
Business Rules	• Must be associated with a Boundary Crossing Time - Proposed. • If accepted by the transferring controller, becomes the Boundary Crossing Point for this facility crossing.
Notes	• [ICAO Standard ATS Messages] Transmitted in CPL, and EST as ICAO Field Type 14a. • [NAS CMS] This data element is extended in the NAS extension. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as Coordination And Transfer::ActiveCoordination::coordination_data (Point2D)
Reference	• EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010 • Amendment No. 1 To The Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) , 2007

3.47 Boundary Crossing Point/Coordinated

Boundary Crossing Point/Coordinated	
Definition	The point where the flight will cross an ATS facility boundary.
Alternate Names	
Has Parts	Boundary Crossing Time/Coordinated, Boundary Crossing - Off Track Deviation/Coordinated, Boundary Crossing - Assigned Speed/Coordinated
Is Part Of	
Data Type(s)	Container, Location
Range of Values	
Business Rules	• Must be associated with a Boundary Crossing Time.
Notes	• [ICAO Standard ATS Messages] Transmitted in CPL, and EST as ICAO Field Type 14a. • [NAS CMS] This data element is extended in the NAS extension. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as Coordination And Transfer::ActiveCoordination::coordination_data (Point2D)
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.48 Boundary Crossing Time - Proposed

Boundary Crossing Time - Proposed	
Definition	The estimated time when the flight will cross the Boundary Crossing Point - Proposed, as requested by the accepting controller from the transferring controller.
Alternate Names	
Has Parts	
Is Part Of	Boundary Crossing Point - Proposed
Data Type(s)	Date Time
Range of Values	
Business Rules	• If accepted by the transferring controller, becomes the Boundary Crossing Time/Coordinated for this facility crossing.
Notes	
Reference	• EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010

3.49 Boundary Crossing Time/Coordinated

Boundary Crossing Time/Coordinated	
Definition	The estimated time at which a flight will cross the associated boundary crossing point.
Alternate Names	Time at Boundary Point
Has Parts	
Is Part Of	Boundary Crossing Point/Coordinated
Data Type(s)	Date Time
Range of Values	
Business Rules	• Must be associated with a Boundary Crossing Point.
Notes	• [ICAO Standard ATS Messages] Transmitted in CPL and EST as ICAO Field Type 14b. • [NAS CMS] This data element is extended in the NAS extension. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as Coordination And Transfer::ActiveCoordination::coordination_data (time)
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.50 City Name

City Name	
Definition	The name of the city the package is being shipped to.
Alternate Names	Postal Structured Address
Has Parts	
Is Part Of	Postal Structured Address
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• IATA limits the size of the text to 17 characters.
Notes	• The code related to the name can be identified in the UNECE Recommendation Number 16 - LOCODE - Code for Trade and Transport Locations. • IATA Data Model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:PostalTradeAddress /ram:CityName
Reference	• IATA SDDG Specification v2.1

3.51 Cleared Direct To

Cleared Direct To	
Definition	Contains the optional starting location from which the direct clearance is granted and the position the aircraft has been cleared directly to.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Complex
Range of Values	
Business Rules	

Notes	• This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ○ Optional location from which a direct clearance is granted: Location
	  ○ Location to which a direct clearance is granted: Location

Reference	• Asia/Pacific Regional Interface Control Document (ICD) For ATS Interfacility Data Communications (AIDC), version 3, September 2007 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 • EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010

3.52 Cleared Flight Level

Cleared Flight Level	
Definition	The Altitude an aircraft is cleared to maintain as specified by ATC. It may differ from the Cruising Altitude, which is more strategic.
Alternate Names	Cleared Level, Assigned Altitude
Has Parts	
Is Part Of	
Data Type(s)	Altitude
Range of Values	
Business Rules	• The aircraft will (climb or descend to and) maintain the new altitude for a period of time and might subsequently be re-cleared to a new altitude.
Notes	
Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • IOP ATC System Requirements – Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 • CSC "Traffic Flow Management Modernization FDB to FTM Data Message Definitions", Feb 12, 2008 • CSC "Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version", Ver. 1.8, April 15, 2011

3.53 Cleared Heading

Cleared Heading	
Definition	The heading assigned to a flight by ATC. It is the magnetic heading the aircraft's nose is pointing to.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Direction
Range of Values	
Business Rules	
Notes	
Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • Asia/Pacific Regional Interface Control Document (ICD) For ATS Interfacility Data Communications (AIDC), version 3, September 2007 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.54 Cleared Offset

Cleared Offset	
Definition	This field specifies the offset information applicable to the route.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• This is a slightly modified version of the data element that is part of the European Extension called "Expanded Route Point - Off Track Deviation"
Reference	• IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.55 Cleared Rate of Climb/Descent

Cleared Rate of Climb/Descent	
Definition	The flight's current assigned Rate of climb/descent, which is part of the current clearance.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Vertical Rate
Range of Values	
Business Rules	
Notes	
Reference	• IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.56 Cleared Speed

Cleared Speed	
Definition	The speed that has been cleared from the controller to the pilot. The element is tactical in nature.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Speed
Range of Values	
Business Rules	
Notes	• The method of measurement is Indicated Airspeed (IAS), usually in knots or mach.
Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • Asia/Pacific Regional Interface Control Document (ICD) For ATS Interfacility Data Communications (AIDC), version 3, September 2007 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.57 Communications Capabilities

Communications Capabilities	
Definition	The serviceable communications equipment, available on the aircraft at the time of flight, and associated flight crew qualifications that may be used to communicate with ATS units.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Complex
Range of Values	One or more of the following values (if enumeration): {E1, E2, E3, H, M1, M2, M3, P1, P2, P3, P4, P5, P6, P7, P8, P9, U, V, Y}
Business Rules	• Standard equipment is VHF RTF unless another set is prescribed by the appropriate ATS authority.

Notes	• This data element can contain either an alphanumeric string (free-form text) or a combination of the following ICAO codes for communication capabilities:
	  ○ E1 - FMC WPR ACAR
	  ○ E2 - D-FIS ACARS
	  ○ E3 - PDC ACARS
	  ○ H - HF RTF
	  ○ M1 - ATC RTF SATCOM (INMARSAT)
	  ○ M2 - ATC RTF (MTSAT)
	  ○ M3 - ATC RTF (Iridium)
	  ○ P1-P9 - reserved for RCP
	  ○ U - UHF RTF
	  ○ V - VHF RTF
	  ○ Y - ATS VHF w/ 8.33 kHz channel spacing capability
	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 10a, or transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18, preceded by 'COM/' (only when equipment cannot be expressed with the 10a pre-defined values).
	• [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::EquipmentCapabilityandStatus and as FGI::OtherInformation.communication_equipment for the COM/part; the 10a indicators are in FGI::EquipmentCapabilityansStatus

Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444)

	• Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.58 Compatibility Group

Compatibility Group	
Definition	When shipping dangerous goods, the reference to the group which identifies the kind of substances and articles deemed to be compatible.
Alternate Names	
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Line Item Details, Dangerous Goods List of Line Item Detail, Dangerous Goods List of Line Item Details
Data Type(s)	Enumeration
Range of Values	[A-S] excluding {I, M, O, P, Q, R}
Business Rules	• Required for explosive dangerous goods.
Notes	• Explosive Dangerous Goods have compatibility group letters assigned to facilitate segregation during transport. The actual letter indicated depends on the specific properties of the substance being transported. The letters used range from A to S excluding the letters I, M, O, P, Q and R. For example, an explosive with a compatibility group 'A' is shown as 1.1A. • IATA model Namespace = xmlns:ram='iata:datamodel:3' IATA XML element name = ram:ApplicableTransportDangerousGoods /ram:ExplosiveCompatibilityGroupCode
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.59 Consignee Address

Consignee Address	
Definition	Specifies the consignee's mailing address.
Alternate Names	
Has Parts	
Is Part Of	Consignee Name and Address, Shipper's Declaration For Dangerous Goods Header
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• The Shipper Address is mandatory when used in the IATA SDDG message.
Notes	• This data element contains free-form text. • The address consists of PO Box, Street, City, Region or State, ZIP or Postal Code, Country Code, and Country Name. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML Element = rsm:ShipppersDeclarationForDangerousGoods /rsm:MasterConsignment /ram:IncludedHouseConsignment /ram:ConsignorParty /ram:PostalStructuredAddress
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.60 Consignee Contact Name

Consignee Contact Name	
Definition	The name of the consignee contact department or person responsible in the event of an emergency, security event, or when further information about the shipment is needed.
Alternate Names	
Has Parts	
Is Part Of	Consignee Name and Address, Shipper's Declaration For Dangerous Goods Header
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• In case of transport of infectious substances, this element should be populated. • Limit max size to 100 characters to limit the vulnerability of code insertion.
Notes	• This element contains free-form text. • Can be different from the Consignee Name, for example, when the Consignee Name is a company and the Consignee Contact Name is an individual. • IATA does not specify a size. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ConsigneeParty /ram:DefinedTradeContact /ram:PersonName
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.61 Consignee Name

Consignee Name	
Definition	Contains the name or legal identity of the organization or person receiving the package.
Alternate Names	
Has Parts	
Is Part Of	Consignee Name and Address, Shipper's Declaration For Dangerous Goods Header
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• Additional names may be specified in this field.
Notes	• This element contains free-form text. • IATA specifies a maximum size of 35 characters. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ConsigneeTradeParty /ram:Name
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175, IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.62 Consignee Name and Address

Consignee Name and Address	
Definition	This is the XML Grouping Element that unites the Consignee Name with the Postal Structure Address (detailed breakout of address components).
Alternate Names	
Has Parts	Consignee Phone Number, Postal Structured Address, Consignee Contact Name, Consignee Name
Is Part Of	Shipper's Declaration For Dangerous Goods Header
Data Type(s)	Container
Range of Values	
Business Rules	• This information is required for an IATA SDDG.
Notes	• IATA model namespace = xmlns:ram='iata:datamodel:3' XML Element = ram:ConsigneeParty
Reference	• IATA SDDG Specification v2.1

3.63 Consignee Phone Number

Consignee Phone Number	
Definition	The phone number of the consignee contact department or person to call, in the event of an emergency, security event, or when further information about the shipment is needed.
Alternate Names	
Has Parts	
Is Part Of	Consignee Name and Address, Shipper's Declaration For Dangerous Goods Header
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• Includes country code (if necessary), area code, and phone number. • IATA specifies a maximum size of 25 characters. • It may include extra characters to identify, if a particular telephone extension is needed to reach inside the organization. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ConsigneeParty /ram:DefinedTradeContact /ram:DirectTelephoneCommunication /ram:CompleteNumber
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175, IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.64 Constraint Category

Constraint Category	
Definition	Specifies the category (implying a relative importance) of the constraint associated with a point in the route or expanded route.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	{Executive_Control, Controller_Tactical_Planning, Network_Strategic, Operator_Constraint, Flight_Plan_Expectation}
Business Rules	
Notes	• Range of values: ○ Executive Control - A tactical constraint issued for immediate application. ○ Controller Tactical Planning - A tactical constraint requested by the pilot/controller for later application. ○ Network Strategic - A constraint applied by the operational network. ○ Operator Constraint - The operator has specified (e.g., in Remarks) that this must be recognized for the flight to execute successfully. ○ Flight Plan Expectation - The operator has requested this constraint in the Flight Plan, but it is not imperative it be recognized - for example, a cruise climb.
Reference	• EUROCAE- ED-133 - Flight Object Interoperability Specification

3.65 Control Element

Control Element	
Definition	The constrained aerodrome or airspace element (subject to a Traffic Management Initiative/Regulation) indicating the reason for a flight being controlled.
Alternate Names	CTL_ELEM, ATM Constrained Element (Europe)
Has Parts	
Is Part Of	
Data Type(s)	Complex
Range of Values	
Business Rules	• If a flight is not controlled, the Control Element is null.
Notes	• In the United States, the control element can be an arrival airport or a FCA. • This data element contains data that is either an aerodrome data type (representing an aerodrome), or an alphanumeric string (representing an airspace element such as an FCA). • In Europe, it is an Air Traffic Management (ATM) constrained element.
Reference	• CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008

3.66 Control Temperature

Control Temperature	
Definition	The maximum temperature at which the substance can be safely transported.
Alternate Names	
Has Parts	
Is Part Of	Dangerous Goods List of Line Item Detail
Data Type(s)	Float
Range of Values	[-200, 200]
Business Rules	
Notes	• Control Temperature is in Degrees Celsius. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:ControlTemperatureMeasurement /ram:ActualMeasure
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • UNECE Recommendation Number 20, Annex I • IATA Dangerous Goods Regulations, January 2011 • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.67 Controlling Sector

Controlling Sector	
Definition	Identifies the ATC sector in control of the aircraft.
Alternate Names	
Has Parts	
Is Part Of	Controlling Unit
Data Type(s)	Sector
Range of Values	
Business Rules	• In the case of units without defined sectors, such as military units, identifies the appropriate working position.
Notes	
Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.68 Controlling Unit

Controlling Unit	
Definition	The identifier of the ATC unit in control of the aircraft.
Alternate Names	
Has Parts	Controlling Sector, Delegated Unit Indicator
Is Part Of	
Data Type(s)	Container, Unit
Range of Values	
Business Rules	

Notes	• Contains the four to six character code from ICAO 7910 - Location Indicators that identifies the unit, if one is available. The first four characters identify the unit, and the last two optional characters identify the sub-unit. If a code is not available, it contains the unit name.
	• This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ○ Unit Identifier: Enumeration
	  ○ Sub-Unit Identifier: Alphanumeric String

Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 • ICAO 7910

3.69 Coordination Status

Coordination Status	
Definition	The status of Coordination and Transfer of Control between the currently Controlling Air Traffic Service Unit (ATSU) to the downstream to be Controlling ATSU.
Alternate Names	Transfer of Control Status
Has Parts	Release Conditions, Abrogation Reason, Manual Referral Reason
Is Part Of	
Data Type(s)	Container, Enumeration
Range of Values	Notified ; Offered ; Coordinated ; Renegotiate Requested ; Renegotiate Rejected ; Rejected ; Requested on Frequency ; Frequency Changed ; Assumed ; Backward Coordinating ; Backward Coordinating - Rejected ; Backward Coordinating - Accepted ; Abrogated ; ATSU Skipped ; Frequency Changed ; Release Requested ; Released ; Release Rejected ; Manually Referred
Business Rules	
Notes	• Notified: The upstream unit has populated the Coordination data structure in the flight object for this downstream crossing and set the Coordination Status to 'Notified'. The estimate data populated for this crossing includes: boundary crossing point, and time and altitude. The flight is a parameter distance or time from the boundary crossing point as a trigger for the Coordination Status being set to 'Notified'. If the Coordination Conditions are being updated by the transferring controller, but the flight is not yet at the parameter time or distance specified for ‘Offered’, the Coordination Status remains 'Notified'. • Offered: The upstream unit has updated the Coordination data in the flight object for this downstream crossing, if necessary, and set the Coordination Status to 'Offered'. The flight is a parameter distance or time from the boundary. If the Coordination Conditions were previously agreed to and this is an update to the conditions, the flight may be less than the agreed upon parameter distance or time from the boundary. • Coordinated: The downstream unit acknowledged receipt and acceptance of the initial or revised Coordination Conditions by setting the Coordination Status to 'Coordinated' for this downstream crossing. • Renegotiate Requested: The downstream unit is proposing changes to the coordinated conditions offered by the upstream unit or agreed to by both units. • Renegotiate Rejected: The upstream unit rejects the revision proposed by the downstream unit (‘Renegotiate Requested’ Coordination Status). If the status prior to 'Renegotiate Requested' was ‘Coordinated’, then the prior Coordination Conditions remain in effect, and the following Coordination Status will default to 'Coordinated'. If the status prior to 'Renegotiate Requested' was ‘Offered’, then the upstream unit will propose new Coordination Conditions, and the next status will be ‘Offered’.

	• Rejected: Proposed Coordination Conditions are rejected. After the status changes to 'Rejected', verbal coordination may be initiated to request a new crossing clearance. This status applies only to civil flights crossing into military airspace or military flights crossing into civil airspace. • Requested on Frequency: The downstream unit updated the coordination data with the intended frequency. • Frequency Changed: The flight has changed frequency and has contacted the upstream unit. • Assumed: The downstream unit has assumed responsibility for the flight. The new controlling unit is reflected as the Controlling Facility in the Flight Object. • Backward Coordinating: The new controlling unit is proposing changes to the Coordination Conditions (level, route, time adjustment) in the vicinity of the boundary (Area of Common Interest (ACI)). The purpose of Backward Coordinating is to maintain separation when radar coverage is not available between aircraft flying around the boundary, which may be controlled by different units. • Backward Coordinating – Accepted: The upstream unit accepts the proposed update to Coordination conditions and the Flight Object is updated to reflect the updated Coordination information. • Backward Coordinating – Rejected: The upstream unit rejects the proposed update to Coordination conditions and the Coordination conditions remain unchanged. The Coordination Status is updated to 'Backward Coordinating – Rejected'. • Abrogated: The flight is no longer expected to traverse the facility as previously coordinated. Coordination may be abrogated for one of these reasons: the expected level at the transfer point has been updated, resulting in a change to the next unit; the route has been updated, resulting in a change to the next unit; the flight has been cancelled. A reason for the abrogation may be provided in Abrogation Reason. • ATSU Skipped: The unit crossing is not negotiated via the FIXM Flight Object, for instance because the downstream unit does not use the FIXM model. • Release Requested: The receiving unit proposes the release of the flight from the agreed transfer conditions, after initial coordination has taken place, or immediately flight is coordinated and transfer of communication has taken place. • Released: The transferring unit accepts the release of a flight from the agreed transfer conditions. Optional Release Conditions may be specified by the transferring unit in the element 'Release Conditions'. • Release Rejected: Transferring unit rejects the release of a flight from the agreed transfer conditions. Coordination conditions remain unchanged. • Manually Referred: The transferring unit has manually referred a flight to the receiving unit. A reason for the manual referral may be provided in Manual

	Referral Reason.
Reference	• Asia/Pacific Regional Interface Control Document (ICD) For ATS Interfacility Data Communications (AIDC), version 3, September 2007 • North American (NAM) Common Coordination Interface Control Document (ICD) VOLUME 1: Area Control Centre (ACC) to ACC, 1/20/12 • The North Atlantic Common Coordination Interface Control Document, Version 1.2.8 December 2010 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.70 Country Code

Country Code	
Definition	A code that indicates a country.
Alternate Names	
Has Parts	
Is Part Of	Destination Country, Postal Structured Address, Departure Country
Data Type(s)	Numeric String
Range of Values	Country Codes are per International Organization for Standardization (ISO) 3166-1/1998, and UNECE Recommendation Number 3 - Code for Representation of Names of Countries.
Business Rules	• Country Codes are per International Organization for Standardization (ISO) 3166-1/1998, and UNECE Recommendation Number 3 - Code for Representation of Names of Countries.
Notes	• IATA specifies a size of two characters. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:CountryIdentificationTradeCountry /ram:ID
Reference	• IATA SDDG Specification v2.1 • ISO 3166-1/1998 • UNECE Recommendation Number 3

3.71 Country Name

Country Name	
Definition	The name of a country.
Alternate Names	
Has Parts	
Is Part Of	Destination Country, Postal Structured Address, Departure Country
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• Limit length to 100 characters to reduce the risk of code insertion.
Notes	• IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:CountryIdentificationTradeCountry /ram:Name
Reference	• IATA SDDG Specification v2.1

3.72 CPDLC Connection Status

CPDLC Connection Status	
Definition	Provides the aircraft's Controller Pilot Data Link Communications (CPDLC) Connection status and optional frequency information.
Alternate Names	Controller Pilot Data Link Communications Connection Status
Has Parts	Frequency Usage, Receiving Unit Frequency
Is Part Of	Unit Boundary
Data Type(s)	Alphanumeric String, Container
Range of Values	Connection Status: {0, 1, 2}
Business Rules	• The connection status sent by the transferring ATSU, may be set to 0, indicating the CPDLC connection with the aircraft has been terminated. If sent by the receiving ATSU, it may be set to 0, 1 or 2. ○ A connection status value of 0 indicates no CPDLC connection could be established with the aircraft. A value of 1 indicates the CPDLC connection request failed due to the receiving ATSU not being the nominated CPDLC Next Data Authority. A value of 2 indicates a CPDLC connection has been established with the aircraft. • The frequency may be transmitted by the receiving ATSU to advise of any changes to a previously notified or default frequency.

Notes	• The CPDLC Connection Status is a structured string that includes the following information. The data type follows the colon:
	  ○ Connection Status: Enumeration
	  ○ Frequency for Receiving Unit: Frequency
	• Frequency is up to seven characters in length, containing integers or a decimal value in the allowed range.
	  ○ For the HF frequency, the range is 2850 to 28000 and the units are kHz.
	  ○ For the VHF frequency, the range is 117.975 to 137.000 and the units are MHz. For the UHF frequency, the range is 225.000 to 399.975 and the units are MHz.

Reference	• Asia/Pacific Regional Interface Control Document (ICD) For ATS Interfacility Data Communications (AIDC), version 3, September 2007 • The North Atlantic Common Coordination Interface Control Document, Version 1.2.8 December 2010

3.73 CPDLC Start Request Indicator

CPDLC Start Request Indicator	
Definition	For a flight crossing the boundary from one facility to the next, notifies the data link equipped unit that it can send a CPDLC Start Request to the aircraft, because the aircraft is authorized to accept a CPDLC connection request from the receiving unit.
Alternate Names	Send Controller Pilot Data Link Communications Start Request Indicator
Has Parts	
Is Part Of	Unit Boundary
Data Type(s)	Boolean
Range of Values	
Business Rules	• The Next Authority Notified (NAN) message is sent after the Next Data Authority Request when the aircraft is acknowledged by the airborne system.
Notes	
Reference	• EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010

3.74 Criticality Safety Index

Criticality Safety Index	
Definition	The dimensionless number (rounded up to the next tenth) assigned to and placed on the label of a fissile material package to designate the degree of control of accumulation of packages containing fissile material during transportation.
Alternate Names	CSI
Has Parts	
Is Part Of	Radioactive Materials
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• Applies to fissile material only. • Limit maximum size of 10 characters to limit the vulnerability to code insertion.
Notes	• CSI designates the degree of control of accumulation of packages containing fissile material during transportation. • Format: The string 'CSI' followed by number expressed to one decimal place • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:RadioactiveMaterial /ram:CriticalitySafetyIndexNumeric
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.75 Cruising Altitude - Requested

Cruising Altitude - Requested	
Definition	The filed altitude (flight level) for the first or the whole cruising portion of the flight.
Alternate Names	Requested Cruising Level
Has Parts	
Is Part Of	
Data Type(s)	Altitude
Range of Values	
Business Rules	
Notes	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 15b. This value represents the first cruising portion, if there are level changes in 15c; otherwise, it represents the level for the whole cruising portion. • [NAS CMS] This data element is extended in the NAS extension. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::ICAORoute
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.76 Cruising Speed

Cruising Speed	
Definition	The true airspeed for the first or the whole cruising portion of the flight. This can be for a filed flight or an active flight. This element is strategic in nature.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Speed
Range of Values	
Business Rules	
Notes	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 15a. If multiple cruising speeds are needed to describe the route in an unambiguous manner (see ICAO PANS-ATM), these can be expressed using Change Points. • [NAS CMS] This data element is extended in the NAS extension. • [SESAR Harmonization]: Element is present in the SESAR 10.02.05 FO model as FGI::ICAORoute. In SESAR, there is a cleared_speed within the Provided_Clearances within the Flight_Script • The method of measurement is True Airspeed (TAS).
Reference	• Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.77 Current Position

Current Position	
Definition	The actual location of an active flight as reported by surveillance, for a flight tracked by radar, or from the position part of a pilot progress report, for an oceanic flight.
Alternate Names	Track Position
Has Parts	Current Position Report Source, Current Position Time, Reported Altitude, Current Track
Is Part Of	
Data Type(s)	Container, Location
Range of Values	
Business Rules	
Notes	
Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • North American (NAM) Common Coordination Interface Control Document (ICD) VOLUME 1: Area Control Centre (ACC) to ACC, 1/20/12 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 • FAA and Japan Civil Aviation Bureau 'Interface Control Document for FAA-JCAB Data Exchange, Ver. 1.0, February 16, 2011 • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.78 Current Position Report Source

Current Position Report Source	
Definition	The source of the current position report information.
Alternate Names	
Has Parts	
Is Part Of	Current Position
Data Type(s)	Enumeration
Range of Values	{Progress Report, Surveillance, SMGCS}
Business Rules	
Notes	
Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • North American (NAM) Common Coordination Interface Control Document (ICD) VOLUME 1: Area Control Centre (ACC) to ACC, 1/20/12IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 • FAA and Japan Civil Aviation Bureau 'Interface Control Document for FAA-JCAB Data Exchange, Ver. 1.0, February 16, 2011 • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.79 Current Position Time

Current Position Time	
Definition	The time associated with the Current Position of an active flight, from the radar surveillance report or progress report.
Alternate Names	Track Position Time
Has Parts	
Is Part Of	Current Position
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	
Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • North American (NAM) Common Coordination Interface Control Document (ICD) VOLUME 1: Area Control Centre (ACC) to ACC, 1/20/12 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 • FAA and Japan Civil Aviation Bureau 'Interface Control Document for FAA-JCAB Data Exchange, Ver. 1.0, February 16, 2011 • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.80 Current Track

Current Track	
Definition	The direction the aircraft is flying, over the ground, relative to true north. It is the heading of the aircraft as impacted by the wind.
Alternate Names	Track Heading
Has Parts	
Is Part Of	Current Position
Data Type(s)	Direction
Range of Values	
Business Rules	
Notes	
Reference	• EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010

3.81 Dangerous Goods Gross Weight

Dangerous Goods Gross Weight	
Definition	The total gross weight of dangerous goods transported for each unique UN number.
Alternate Names	
Has Parts	
Is Part Of	Dangerous Goods List of Line Item Detail
Data Type(s)	Float
Range of Values	non-negative
Business Rules	• If there are dangerous goods on board the flight, this element should be populated for emergency response usage.
Notes	• The unit of measure is an attribute to the Gross Weight. Units of Measure selected from Code List. UNECE Recommendation Number 20 - Codes for Units of Measure Used in International Trade - Annex I can be used. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:GrossWeightMeasure
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • UNECE Recommendation Number 20, Annex I • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.82 Dangerous Goods List of Line Item Detail

Dangerous Goods List of Line Item Detail	
Definition	The part of the IATA Shipper's Declaration For Dangerous Goods that contains the Line Item information for the shipment.
Alternate Names	
Has Parts	Packing Group, Dangerous Goods Volume, Compatibility Group, Hazard Class and Division, Reportable Quantity, United Nations Number, Emergency Temperature, Control Temperature, Marine Pollutant Indicator, Dangerous Goods Net Weight, Subsidiary Hazard Class and Division, Technical Name, Shipment Authorizations, Proper Shipping Name, Packing Instruction Number, Dangerous Goods Gross Weight, Supplementary Information
Is Part Of	Shipper's Declaration For Dangerous Goods Line Item Details
Data Type(s)	Container
Range of Values	
Business Rules	• If the parent Grouping element (Shipper's Declaration For Dangerous Goods Line Item Details) is present, this Grouping Element is required.
Notes	• IATA model Namespace = xmlns:rsm='iata:shippersdeclarationfordangerousgoods:1' and xmlns:ram='iata:datamodel:3' XML Element = rsm:MasterConsignment /ram:IncludedHouseConsignment
Reference	• IATA SDDG Specification v2.1

3.83 Dangerous Goods List of Overpack Detail

Dangerous Goods List of Overpack Detail	
Definition	The part of the IATA Shipper's Declaration For Dangerous Goods that contains the Overpack Detail for the shipment.
Alternate Names	
Has Parts	Package Gross Weight, Package Length, Package Net Weight, Package Volume, Package Width, Radioactive Materials, Package Height
Is Part Of	Shipper's Declaration For Dangerous Goods Line Item Details
Data Type(s)	Container
Range of Values	
Business Rules	• If the parent grouping element (Shipper's Declaration For Dangerous Goods Line Item Details) is present, this grouping element is optional. It is required, if multiple packages are grouped together.
Notes	• IATA model Namespace = xmlns:rsm='iata:shippersdeclarationfordangerousgoods:1' and xmlns:ram='iata:datamodel:3' XML Element = rsm:MasterConsignment /ram:IncludedHouseConsignment
Reference	• IATA SDDG Specification v2.1

3.84 Dangerous Goods List of Package Detail

Dangerous Goods List of Package Detail	
Definition	The part of the IATA Shipper's Declaration For Dangerous Goods that contains the Package Details for the shipment.
Alternate Names	
Has Parts	Dangerous Goods Package Details
Is Part Of	Shipper's Declaration For Dangerous Goods Packaging Detail
Data Type(s)	Container
Range of Values	
Business Rules	• If the parent grouping element (Shipper's Declaration For Dangerous Goods Packaging Details) is present, this grouping element is required.
Notes	• IATA model Namespace = xmlns:ram='iata:datamodel:3' XML Element = ram:IncludedHouseConsignment /ram:RelatedCommercialTradeTransaction
Reference	• IATA SDDG Specification v2.1

3.85 Dangerous Goods Net Weight

Dangerous Goods Net Weight	
Definition	The total net weight of dangerous goods transported for each unique UN number.
Alternate Names	
Has Parts	
Is Part Of	Dangerous Goods List of Line Item Detail
Data Type(s)	Float
Range of Values	non-negative
Business Rules	• If there are dangerous goods on board the flight, this element should be populated for emergency response usage.
Notes	• The unit of measure is an attribute to the Net Weight. Units of Measure selected from Code List. UNECE Recommendation Number 20 - Codes for Units of Measure Used in International Trade - Annex I can be used. For the attribute unit of measurement - Indicates the Unit of Measure from the Code List. In case of transport of radioactive materials, the units of measure to be used are Grams or multiples of Grams. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:NetWeightMeasure
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • UNECE Recommendation Number 20, Annex I • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.86 Dangerous Goods Package Details

Dangerous Goods Package Details	
Definition	The part of the IATA Shipper's Declaration For Dangerous Goods that contains the Package Details for the shipment.
Alternate Names	
Has Parts	Exclusive Use Shipment Indicator, Dangerous Goods Quantity, Package Gross Weight, Package Length, All Packed In One, Additional Handling Information, Dangerous Goods Type of Packaging, Package Net Weight, Q Value, Package Width, Package Volume, Package Height
Is Part Of	Dangerous Goods List of Package Detail
Data Type(s)	Container
Range of Values	
Business Rules	• If the parent grouping element (Shipper's Declaration For Dangerous Goods Line Item Details) is present, this grouping element is required.
Notes	• IATA model Namespace = xmlns:ram='iata:datamodel:3' XML Element = ram:RelatedCommercialTradeTransaction /ram:SpecifiedLogisticsPackage
Reference	• IATA SDDG Specification v2.1

3.87 Dangerous Goods Quantity

Dangerous Goods Quantity	
Definition	The total number of dangerous good packages of the same type and content.
Alternate Names	Number of Packages, Quantity, Amount
Has Parts	
Is Part Of	Dangerous Goods Package Details
Data Type(s)	Integer
Range of Values	
Business Rules	
Notes	• This element should not contain the weight or volume. The total weight or volume should be specified in the Shipment Gross Weight, Shipment Net Weight, and Shipment Volume elements. • IATA model ram:SpecifiedLogisticsPackage /ram:ItemQuantity unitCode
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.88 Dangerous Goods Screening Location

Dangerous Goods Screening Location	
Definition	The name of the Certified Cargo Screening Facility, as approved by the Transportation Security Administration (TSA), or the location/name of any screening performed.
Alternate Names	HC Screening Location
Has Parts	
Is Part Of	
Data Type(s)	Location
Range of Values	
Business Rules	• Limit to 100 characters to reduce risk of code insertion.
Notes	• If the location is unspecified, this data element will signify the package has not been screened or the screening status is unknown. • This element is not required by IATA and was included to be used for operational security purposes.
Reference	• 49 CFR Part 1549: Certified Cargo Screening Program

3.89 Dangerous Goods Type of Packaging

Dangerous Goods Type of Packaging	
Definition	The material or container in which the dangerous good is packaged.
Alternate Names	Type of Packaging, Package Type
Has Parts	
Is Part Of	Dangerous Goods Package Details
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• This element contains free-form text. • IATA model ram:SpecifiedLogisticsPackage /ram:UsedSupplyChainPackaging /ram:Type
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.90 Dangerous Goods Volume

Dangerous Goods Volume	
Definition	The total displacement of dangerous goods transported for each unique UN number.
Alternate Names	
Has Parts	
Is Part Of	Dangerous Goods List of Line Item Detail
Data Type(s)	Float
Range of Values	
Business Rules	• If there are dangerous goods on board the flight, this element should be populated for emergency response usage.
Notes	• The unit of measure is an attribute (unitCode) to the Volume. Units of Measure selected from Code List. UNECE Recommendation Number 20 - Codes for Units of Measure Used in International Trade - Annex I can be used. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:GrossVolumeMeasure
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • UNECE Recommendation Number 20, Annex I • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.91 Data Link Communication Capabilities

Data Link Communication Capabilities	
Definition	The serviceable equipment and capabilities available on the aircraft at the time of flight that may be used to communicate data to and from the aircraft.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Complex
Range of Values	{J1, J2, J3, J4, J5, J6, J7}
Business Rules	

Notes	• This data element can contain either an alphanumeric string (free-form text) or a combination of the following enumerated ICAO codes for communication capabilities:
	  ○ J1 - CPDLC ATN VDL Mode 2
	  ○ J2 - CPDLC FANS 1/A HFDL
	  ○ J3 - CPDLC FANS 1/A VDL Mode A
	  ○ J4 - CPDLC FANS 1/A VDL Mode 2
	  ○ J5 - CPDLC FANS 1/A SATCOM (INMARSAT)
	  ○ J6 - CPDLC FANS 1/A SATCOM (MTSAT)
	  ○ J7 - CPDLC FANS 1/A SATCOM (Iridium)
	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 10a, or transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18, preceded by 'DAT/' (only when equipment cannot be expressed with the 10a pre-defined values).
	• [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::EquipmentCapabilityandStatus and as FGI::OtherInformation.datalink_capabilities for the DAT/part; the 10a indicators are in FGI::EquipmentCapabilityansStatus

Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.92 De-icing End Time - Actual

De-icing End Time - Actual	
Definition	The time when de-icing operations on the aircraft end.
Alternate Names	Actual End of De-icing Time, AEZT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	
Reference	• A-CDM Implementation Manual

3.93 De-icing End Time - Estimated

De-icing End Time - Estimated	
Definition	The time when de-icing operations on the aircraft are expected to end.
Alternate Names	Estimated End of De-icing Time, EEZT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	
Reference	• A-CDM Implementation Manual

3.94 De-icing Ready Time - Actual

De-icing Ready Time - Actual	
Definition	The time when the aircraft is ready to be de-iced.
Alternate Names	Actual Ready for De-icing Time, ARZT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	
Reference	• A-CDM Implementation Manual

3.95 De-icing Ready Time - Estimated

De-icing Ready Time - Estimated	
Definition	The time when the aircraft is expected to be ready for de-icing operations.
Alternate Names	Estimated Ready for De-icing Time, ERZT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	
Reference	• A-CDM Implementation Manual

3.96 De-icing Start Time - Actual

De-icing Start Time - Actual	
Definition	The time when de-icing operations on the aircraft start.
Alternate Names	Actual Commencement of De-icing Time, ACZT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	
Reference	• A-CDM Implementation Manual

3.97 De-icing Start Time - Estimated

De-icing Start Time - Estimated	
Definition	The time when de-icing operations on the aircraft are expected to start.
Alternate Names	Estimated Commencement of De-icing Time, ECZT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	
Reference	• A-CDM Implementation Manual

3.98 Declaration Text: Compliance

Declaration Text: Compliance	
Definition	The warning message for not complying with the regulations.
Alternate Names	
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Header
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• This is mandatory for Hazardous/Dangerous Goods transported by air. • Limit max size to 300 characters to limit the vulnerability of code insertion.
Notes	• This data element contains free-form text. • Often found on shipping papers. • IATA does not specify a size. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML Element name = ram:ApplicableTransportDangerousGoods /ram:ComplianceDeclarationInformation
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • Shipper's Declaration for Dangerous Goods

3.99 Declaration Text: Consignor

Declaration Text: Consignor	
Definition	The consignor's statement indicating the dangerous goods have been packaged and handled according to regulations.
Alternate Names	
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Summary
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• This is mandatory for Dangerous Goods shipments. • Limit max size to 300 characters to limit the vulnerability of code insertion.
Notes	• This data element contains free-form text. • IATA does not specify a size. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML Element name = ram:BusinessHeaderDocument /ram:SignatoryConsignorAuthentication /ram:Statement
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • Shipper's Declaration for Dangerous Goods

3.100 Declaration Text: Shipper

Declaration Text: Shipper	
Definition	This shipper's statement indicating the dangerous goods have been packaged and handled according to regulations.
Alternate Names	
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Header
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• This is mandatory for Dangerous Goods transported by air. • Limit max size to 300 characters to limit the vulnerability of code insertion.
Notes	• This data element contains free-form text. • IATA does not specify a size. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML Element name = ram:ApplicableTransportDangerousGoods /ram:ShipperDeclarationInformation
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • Shipper's Declaration for Dangerous Goods

3.101 Delegated Unit Indicator

Delegated Unit Indicator	
Definition	Indicates whether or not the controlling unit has been delegated authority for the flight based on agreement with the unit in whose Area of Responsibility (AOR) the flight is currently located.
Alternate Names	
Has Parts	
Is Part Of	Controlling Unit, Handoff Receiving Unit, Handoff Transferring Unit
Data Type(s)	Boolean
Range of Values	
Business Rules	
Notes	• Letters of agreement established between units may provide for flights, under specified circumstances, to be controlled by a unit other than the one in whose Area of Responsibility (AoR) the flight is located.
Reference	• EUROCAE- ED-133 - Flight Object Interoperability Specification

3.102 Department

Department	
Definition	Contains the Department Name portion of the Address.
Alternate Names	
Has Parts	
Is Part Of	Postal Structured Address
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• Limit length of field to 100 characters to reduce the risk of code insertion.
Notes	• This element contains free-form text. • IATA Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:PostalTradeAddress /ram:DepartmentName
Reference	• IATA SDDG Specification v2.1

3.103 Departure Aerodrome

Departure Aerodrome	
Definition	The ICAO designator of the aerodrome from which the flight departs.
Alternate Names	Departure Airport
Has Parts	
Is Part Of	
Data Type(s)	Aerodrome
Range of Values	
Business Rules	[FAA] In the case of field 18, name and location identifier for an airport is entered. If there is a location identifier published in the Aeronautical Information Publications (AIP) for the airport but not in ICAO Doc. 7910, then the location is optional. If AFIL was filed, then no location is required but may be present; in any case, the automation can treat this as free-form text.
Notes	• [FAA] Not all four-letter identifiers in the United States have been published in ICAO Doc. 7910. Therefore, location identifiers may be per national Aeronautical Information Publications (AIP). • [ICAO Standard ATS Messages] If the Departure Aerodrome has a four character ICAO location indicator (as described in ICAO 7910), it is populated in field 13a of the Flight Plan and transmitted in all standard ATS messages except RCF and LAM. If not, the string 'ZZZZ' is inserted in field 13a, and the Departure Aerodrome information is inserted in field 18 (transmitted in ALR, FPL, CPL, and SPL), preceded by the string 'DEP/'. If the flight plan is filed while the aircraft is in flight, the string AFIL is inserted in field 13a, and the four-letter ICAO location indicator of the ATS unit from which supplementary flight plan data can be obtained is inserted in field 18, preceded by the string 'DEP/'. • When expressed as a free-form alphanumeric string, it contains the actual name of the departure aerodrome (e.g., 'Flagstaff Pulliam Airport'). • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::OtherInformation.departure_aerodrome and FGI::FlightPlan.ref_id_departure_aerodrome
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007 • ICAO Doc. 7910: Location Indicators, Edition No. 138, 2010

3.104 Departure Country

Departure Country	
Definition	The Code and Name of the departure country where the package originated.
Alternate Names	Departure Country Name, Export Trade Country
Has Parts	Country Name, Country Code
Is Part Of	Shipper's Declaration For Dangerous Goods Header
Data Type(s)	Container
Range of Values	
Business Rules	
Notes	• IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ExportTradeCountry/ The Country Code is actually stored in ram:ExportTradeCountry /ram:ID
Reference	• IATA SDDG Specification v2.1 • ISO 3166-1/1998 • UNECE Recommendation Number 3

3.105 Departure Fix Time - Actual

Departure Fix Time - Actual	
Definition	The actual time the flight passed over the departure fix.
Alternate Names	Actual Departure Fix Time, ADFT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	• This data element is associated with the Aerodrome Departure Fix data element. It does not align with operational concepts in Europe, and it will be revisited in a later version.
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.106 Departure Fix Time - Estimated

Departure Fix Time - Estimated	
Definition	The estimated time the flight is over the departure fix.
Alternate Names	Estimated Departure Fix Time, EDFT, DFIX Time
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	• In the United States, the Departure Fix Time - Estimated is determined by the TFMS.
Notes	• This data element is associated with the Aerodrome Departure Fix data element. It does not align with operational concepts in Europe, and it will be revisited in a later version.
Reference	• CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011 • Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.107 Departure Runway

Departure Runway	
Definition	The expected, assigned, or actual runway for a departing flight.
Alternate Names	DRWY
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	[0-9]{2}[LCR]? (2 figures 01 to 36 may be followed by Letters L, C, or R)
Business Rules	• Only present when known.
Notes	• Usually assigned prior to departure and can be linked with allocation of the Standard Instrument Departure (SID). • Also, used to derive taxi out time (duration).Updated with the actual departure runway upon take-off, if different from the expected/assigned runway
Reference	• EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010 • AIXM 5.1 (www.aixm.aero).

3.108 Departure Slot

Departure Slot	
Definition	A time slot at an airport that identifies a point in time when an aircraft is constrained to depart from the airport.
Alternate Names	DSLOT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	• In Australia, when a departure program (TMI) is run, the TFMS generates slots when departures can take place based on the airport capacity, runway configuration, and weather conditions. • The slots are allocated to aircraft based on the early intent flight information received by the TFMS. Departure slots not assigned are called unassigned slots and are available for use.
Reference	

3.109 Departure Stand

Departure Stand	
Definition	The stand from which an aircraft departs on commencement of the flight.
Alternate Names	Departure Gate
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• Associated with 'time' events relating to departure from stand (also known as off blocks time events). • This data element is associated with the AIXM "Aircraft Stand" data element.
Reference	AIXM (www.aixm.aero)

3.110 Departure Terminal

Departure Terminal	
Definition	The airport terminal from which the flight departs.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• Terminal information is valuable for TFM processing, if the gate/stand is not known. • This data element is associated with the AIXM "CodeAircraftStandBaseType"data element.
Reference	AIXM 5.1 (www.aixm.aero)

3.111 Destination Aerodrome

Destination Aerodrome	
Definition	The ICAO designator or the name of the aerodrome at which the flight is scheduled to arrive.
Alternate Names	Destination Airport
Has Parts	
Is Part Of	
Data Type(s)	Aerodrome
Range of Values	
Business Rules	• Per ICAO Doc. 7910: Location Indicators, Edition No. 138, 2010, NNN should not be used as the second, third and fourth letters of a location indicator such as the name of the destination aerodrome. • This data element is updated while in flight, if new destination aerodrome(s) is/are assigned.
Notes	• This data element is similar to Arrival Aerodrome, and the two have equal values in most cases. However, they remain conceptually different as standalone data elements. • [ICAO Standard ATS Messages] If the Destination Aerodrome has a four character ICAO location indicator (as described in ICAO 7910), it is populated in field 16a of the Flight Plan and transmitted in all Standard ATS Messages except RCF and LAM. If not, the string 'ZZZZ' is inserted in field 16a, and the Destination Aerodrome information is inserted in field 18 (transmitted in ALR, FPL, and SPL), preceded by 'DEST/'. • When expressed as a free-form alphanumeric text, it contains the actual name of the departure aerodrome. • [FAA] Order JO 7350.8 - Location Identifiers contains valid airport designators, and the Aeronautical Information Publication (AIP) contains the U.S. airports designated to handle international operations. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::FlightPlan.ref_id_destination_aerodrome and FGI::OtherInformation.destination_aerodrome
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007 • ICAO Doc. 7910: Location Indicators, Edition No. 138, 2010

3.112 Destination Aerodrome - Alternate

Destination Aerodrome - Alternate	
Definition	ICAO designator or the name of an alternate aerodrome to which an aircraft may proceed, should it become either impossible or inadvisable to land at the original destination aerodrome or an alternate destination location.
Alternate Names	Destination Alternate Aerodrome, Alternate Airport
Has Parts	
Is Part Of	
Data Type(s)	Aerodrome
Range of Values	
Business Rules	Per ICAO Doc. 7910: Location Indicators, Edition No. 138, 2010, NNN should not be used as the second, third, and fourth letters of a location indicator such as the name of the destination aerodrome.
Notes	• [ICAO Standard ATS Messages] Transmitted in all Standard ATS Messages except RCF and LAM as ICAO Field Type 16c. If 'ZZZZ' is used in 16c (in cases where no ICAO location indicator has been allocated for the aerodrome), the name of the alternate aerodrome is transmitted in ALR, FPL, CPL, and SPL as Field Type 18, preceded by 'ALTN/'. • When expressed as a free-form alphanumeric text, it contains the actual name of the alternate destination aerodrome (e.g., 'Seattle-Tacoma International Airport Sea-Tac Airport'). • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::FlightPlan.ref_id_alternative_destination_aerodromes and FGI::OtherInformation.alternate_destination_aerodromes
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007 • ICAO Doc. 7910: Location Indicators, Edition No. 138, 2010

3.113 Destination Country

Destination Country	
Definition	The Name and Code of the dangerous good's country of destination.
Alternate Names	Final Destination Trade Country
Has Parts	Country Name, Country Code
Is Part Of	Shipper's Declaration For Dangerous Goods Header
Data Type(s)	Container
Range of Values	
Business Rules	
Notes	• IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:FInalDestinationTradeCountry/ The Country Code is stored in ram:FinalDestinationTradeCountry /ram:ID. Country Code (aka ram:ID) is mandatory
Reference	• IATA SDDG Specification v2.1 • ISO 3166-1/1998 • UNECE Recommendation Number 3

3.114 Dinghy Colour

Dinghy Colour	
Definition	The colour of the dinghies carried by the aircraft.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	[AFTN] When transmitted by the AFTN (aeronautical fixed telecommunications network), the message shall be assigned the same priority indicator as that in the request message.
Notes	• This data element contains free-form text. • [ICAO Standard ATS Messages] Transmitted in ALR and SPL as ICAO Field Type 19f, preceded by 'D/'. • [ICAO] Since this data is not part of the filed flight plan, it must be made available by the operator, so that it can be supplied without delay when requested by ATS units. • [FAA] This information is part of the supplementary flight plan data and shall be kept readily available by the operator at the departure aerodrome or another agreed location so that, on request by ATS units, it can be supplied without delay. When transmitted by the AFTN, the message shall be assigned the same priority indicator as that in the request message. Supplementary information is stored with the flight planning service [wherever the flight plan is entered (e.g., FSS, DUATS, AOC, etc.)]. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::Dinghies.colour.
Reference	• Amendment No. 1 To The Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.115 Dinghy Cover Status

Dinghy Cover Status	
Definition	Indication of the covered/uncovered nature of the dinghies carried by the aircraft.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	{C, U}
Business Rules	

Notes	• The meaning of the value is as follows:
	  ○ U - uncovered
	  ○ C - covered
	• [ICAO] Since this data is not part of the filed flight plan, it must be made available by the operator, so that it can be supplied without delay when requested by ATS units.
	• [FAA] This information is part of the supplementary flight plan data and shall be kept readily available by the operator at the departure aerodrome or another agreed location, so that, on request by ATS units, it can be supplied without delay. When transmitted by the AFTN, the message shall be assigned the same priority indicator as that in the request message. Supplementary information is stored with the flight planning service (wherever the flight plan is entered, e.g., FSS, DUATS, AOC, etc.).
	• [ICAO Standard ATS Messages] Transmitted in ALR and SPL as ICAO Field Type 19f, preceded by 'D/'.
	• [AFTN] When transmitted by the AFTN, the message shall be assigned the same priority indicator as that in the request message.
	• [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::Dinghies.are_covered

Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.116 Dinghy Quantity

Dinghy Quantity	
Definition	The number of dinghies carried by the aircraft.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Integer
Range of Values	[0-99]
Business Rules	
Notes	• [ICAO] Since this data is not part of the filed flight plan, it must be made available by the operator, so that it can be supplied without delay when requested by ATS units. • [FAA] This information is part of the supplementary flight plan data and shall be kept readily available by the operator at the departure aerodrome or another agreed location, so that, on request by ATS units, it can be supplied without delay. When transmitted by the AFTN, the message shall be assigned the same priority indicator as that in the request message. Supplementary information is stored with the flight planning service [wherever the flight plan is entered (e.g., FSS, DUATS, AOC, etc.)]. • [ICAO Standard ATS Messages] Transmitted in ALR and SPL as ICAO Field Type 19f, preceded by 'D/'. • [AFTN] When transmitted by the AFTN, the message shall be assigned the same priority indicator as that in the request message. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::Dinghies.number
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.117 Dinghy Total Capacity

Dinghy Total Capacity	
Definition	The total number of persons that can be accommodated by the dinghies carried on board the aircraft.
Alternate Names	Total Capacity
Has Parts	
Is Part Of	
Data Type(s)	Integer
Range of Values	[0-999]
Business Rules	
Notes	• [ICAO] Since this data is not part of the filed flight plan, it must be made available by the operator, so that it can be supplied without delay when requested by ATS units. • [FAA] This information is part of the supplementary flight plan data and shall be kept readily available by the operator at the departure aerodrome or another agreed location so that, on request by ATS units, it can be supplied without delay. When transmitted by the AFTN (aeronautical fixed telecommunications network), the message shall be assigned the same priority indicator as that in the request message. Supplementary information is stored with the flight planning service [wherever the flight plan is entered (e.g., FSS, DUATS, AOC, etc.)]. • [ICAO Standard ATS Messages] Transmitted in ALR and SPL as ICAO Field Type 19f, preceded by 'D/'. • [AFTN] When transmitted by the AFTN, the message shall be assigned the same priority indicator as that in the request message. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::Dinghies.total_capacity
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.118 Diversion Recovery Information

Diversion Recovery Information	
Definition	The Diversion Recovery Information indicates a flight is the recovery for a flight that changed its original destination. It is represented by the GUFI of the original flight.
Alternate Names	DVREC
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• This data element is present only for diversion recovery flights, represented by the GUFI of the original flight; otherwise, the field is blank.
Notes	• The diversion recovery Information is used for applying special processing to Diversion Recovery flights, in order to ensure they are given proper priority in any Traffic Management Initiative. • A Diversion Recovery flight inherits data from the original flight, to ensure it is given the same degree of priority the original flight would have received in any Ground Delay Program (GDP) or AFP (for U.S. CDM) that has been or may be in effect. The Diversion Recovery information indicates the flight is a result of a change of destination; it is not an indicator the flight has requested priority handling by submitting DVRSN in the flight plan remarks.
Reference	• CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008

3.119 Downstream Unit

Downstream Unit	
Definition	The next unit the flight will be controlled by based on the planned route of flight, altitude, and accepted constraints.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Unit
Range of Values	
Business Rules	

Notes	• Contains the four to six character code from ICAO 7910 - Location Indicators that identifies the unit, if one is available. The first four characters identify the unit, and the last two optional characters identify the sub-unit. If a code is not available, it contains the unit name.
	• This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ○ Unit Identifier: Enumeration
	  ○ Sub-Unit Identifier: Alphanumeric String

Reference	• IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 • ICAO 7910, Location Indicators, latest published edition.

3.120 Elapsed Time - Estimated

Elapsed Time - Estimated	
Definition	The estimated amount of time from take-off to reach a significant point or Flight Information Region (FIR) boundary along the route of flight.
Alternate Names	EET
Has Parts	
Is Part Of	
Data Type(s)	Time Duration
Range of Values	
Business Rules	• This data element is always used in combination with a Significant Point.
Notes	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18, preceded by 'EET/'. • [SESAR Harmonization] Element is not present in the SESAR 10.02.05 FO but has been added to a list for consideration for inclusion in the SESAR model. • Example: EET/EINN0026 EGGX0111 52N20W0136 CYQX0228 52N40W0330 52N50W0415
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.121 Emergency Description

Emergency Description	
Definition	A short, plain-language description of the nature of the emergency.
Alternate Names	Nature of Emergency, Description of Emergency
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• This data element contains free-form text. • [ICAO Standard ATS Messages] Transmitted in ALR as ICAO Field Type 5c. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as Aircraft ::EmergencyData. emergency_description
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.122 Emergency Message Originator

Emergency Message Originator	
Definition	The ICAO identifier of the ATS unit originating the emergency message.
Alternate Names	Originator of Message
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	ATS unit identifier values are published in ICAO Doc. 7910 - Location Identifiers.
Business Rules	
Notes	• [ICAO Standard ATS Messages] Transmitted in ALR as ICAO Field Type 5b. • [SESAR Harmonization] Element is not present in the SESAR 10.02.05 FO but has been added to a list for consideration for inclusion in the SESAR model.
Reference	• ICAO Doc. 7910 - Location Indicators, Edition No. 138, 2010. • Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444). • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.123 Emergency Phase

Emergency Phase	
Definition	Stage of emergency the flight is currently under or an indication the emergency has been cancelled, as designated by an ATS unit.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	{INCERFA, ALERFA, DETRESFA, CANCELLED}
Business Rules	

Notes	• The meaning of the values is as follows:
	  ○ INCERFA - uncertainty phase
	  ○ ALERFA - alert phase
	  ○ DETRESFA - distress phase
	  ○ CANCELLED - the emergency has been cancelled
	• [ICAO Standard ATS Messages] Transmitted in ALR as ICAO Field Type 5a.
	• [SESAR Harmonization] Element is not present in the SESAR 10.02.05 FO. Element has been added to a list for consideration for inclusion in the SESAR model.

Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.124 Emergency Radio Transmitter Type

Emergency Radio Transmitter Type	
Definition	The type of serviceable communication devices available on the aircraft that are able to transmit an emergency radio signal.
Alternate Names	Emergency, Communication Mode Type Code
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	One or more of the following: {U, V, E}
Business Rules	

Notes	• The meaning of the values is as follows:
	  ○ U - UHF (243.0 MHz)
	  ○ V - VHF (121.5 MHz)
	  ○ E - ELT
	• [ICAO] Since this data is not part of the filed flight plan, it must be made available by the operator, so that it can be supplied without delay when requested by ATS units.
	• [FAA] This information is part of the supplementary flight plan data and shall be kept readily available by the operator at the departure aerodrome or another agreed location so that, on request by ATS units, it can be supplied without delay. When transmitted by the AFTN, the message shall be assigned the same priority indicator as that in the request message. Supplementary information is stored with the flight planning service (wherever the flight plan is entered... e.g., FSS, DUATS, AOC, etc.).
	• [ICAO Standard ATS Messages] Transmitted in ALR and SPL as ICAO Field Type 19c, preceded by 'R/'.
	• [AFTN] When transmitted by the AFTN, the message shall be assigned the same priority indicator as that in the request message.
	• [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::SupplementaryInformation.frequency_availability

Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.125 Emergency Response Guidebook Number

Emergency Response Guidebook Number	
Definition	A reference to a set of instructions to handle a specific dangerous goods situation.
Alternate Names	ERG #
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• The Emergency Response Guidebook (ERG) currently has about 170 guides for hazmat emergency response. It is published jointly by the United States (US) Department of Transportation (DOT), Transport Canada (TC), and the Secretariat of Communications and Transportation (SCT) of Mexico, with collaboration with the Chemistry Information Centre for Emergencies (CIQUIME) of Argentina. • The Emergency Response Guidebook provides first responders with a go-to manual to help deal with hazmat accidents during the critical first 30 minutes. It is often called the 'Little Orange Book'. It can be searched by UN # or Guidebook Number.
Reference	• PHMSA 2012 Emergency Response Guidebook

3.126 Emergency Temperature

Emergency Temperature	
Definition	The temperature at which emergency procedures shall be implemented in the event of loss of temperature control.
Alternate Names	
Has Parts	
Is Part Of	Dangerous Goods List of Line Item Detail
Data Type(s)	Float
Range of Values	[-200, 200]
Business Rules	
Notes	• Specified in degrees Celsius. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:EmergencyTemperatureMeasurement /ram:ActualMeasure
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • UNECE Recommendation Number 20, Annex I • IATA Dangerous Goods Regulations, January 2011 • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.127 En Route Alternate Aerodrome

En Route Alternate Aerodrome	
Definition	An ICAO designator of the aerodrome to which a flight could be diverted while en route, if needed.
Alternate Names	Enroute Alternate, Enroute Alternates
Has Parts	
Is Part Of	
Data Type(s)	Aerodrome
Range of Values	
Business Rules	
Notes	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, CPL, and SPL as Field Type 18, preceded by 'RALT/'. • When expressed as a free-form alphanumeric text, it contains the actual name of the alternate en route aerodrome (e.g., 'Washington Dulles International Airport'). • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::OtherInformation.enroute_alternate_aerodromes
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.128 En Route Delay - Filed

En Route Delay - Filed	
Definition	The length of time the flight is expected to be delayed at a specific point en route.
Alternate Names	Delay (at a fix)
Has Parts	
Is Part Of	
Data Type(s)	Time Duration
Range of Values	
Business Rules	• This data element must be used in combination with a Significant Point.
Notes	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18, preceded by 'DLE/'. Note that ICAO cannot represent en route delays larger than 24 hours. • [SESAR Harmonization] Element is not present in the SESAR 10.02.05 FO. Element has been added to a list for consideration for inclusion in the SESAR model.
Reference	• Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.129 Engine Type

Engine Type	
Definition	The category of the aircraft engine.
Alternate Names	Aircraft Engine Types
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	{PISTON, TURBO_PROP, TURBO_SHAFT, TURBO_JET, TURBO_FAN, PROP_FAN}
Business Rules	• The Engine Type is derived from the Aircraft Type.
Notes	• Used to filter flight displays, list reports and to exclude/include flights in Traffic Management Initiatives.
Reference	• CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.130 Exclusive Use Shipment Indicator

Exclusive Use Shipment Indicator	
Definition	An indicator of sole use, by a single shipper, of an aircraft or of a large freight container, of which all initial, intermediate and final loading and unloading is carried out in accordance with the directions of the shipper or consignee.
Alternate Names	
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Packaging Detail, Dangerous Goods Package Details
Data Type(s)	Boolean
Range of Values	
Business Rules	• This data element is used for radioactive material only. • If exclusive use is true, no other dangerous goods can be on board the aircraft.
Notes	• IATA model Namespace = xmlns:ram='iata:datamodel:3' XML Element name = ram:MasterConsignment /ram:IncludedHouseConsignment /ram:HandlingInstructions /ram:ExclusiveUsageIndicator
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.131 Expanded Route

Expanded Route	
Definition	The expansion of the route into a set of points which describe the aircraft's expected 2D path from the departure aerodrome to the destination aerodrome.
Alternate Names	Converted Route, Predicted Fixes, Predicted Waypoints
Has Parts	Expanded Route Point
Is Part Of	
Data Type(s)	Container
Range of Values	
Business Rules	• The expanded route fixes may reflect the entire route of flight or only a portion of it.
Notes	• As part of route expansion, each standard route that is part of the larger route is broken down into a list of points defining the portion of the standard route to be overflown. • The expanded route fixes include the result of expansion of the arrival and departure procedure. • Local factors, such as Letters of Agreement in force between the parties, determine whether the Expanded Route reflects the entire route or only a portion. For example, for a flight being handed over, the Expanded Route may begin at the point at which the flight enters the area of responsibility of the sending unit or the point before entering the area of responsibility of the receiving unit. The Expanded Route may end at the point at which the flight leaves the area of responsibility of the sending unit or the point beyond the area of responsibility of the receiving unit. • The process of expanding a route into a set of fixes that describe the expected flight path applies not only to routes filed or amended via the en route system but also to scheduled and Traffic Flow Management (TFM) routes, such as Early Intent or Collaborative Trajectory Options Program (CTOP) routes.
Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 • EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010 • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface

	Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.132 Expanded Route Point

Expanded Route Point	
Definition	A point that is part of the aircraft's expanded route of flight.
Alternate Names	Converted Route Point
Has Parts	Expanded Route Point Time, Expanded Route Point Altitude
Is Part Of	Expanded Route
Data Type(s)	Container, Location
Range of Values	
Business Rules	
Notes	• Local factors, such as Letters of Agreement in force between the parties, determine whether the Expanded Route reflects the entire route or only a portion. For example, for a flight being handed over, the Expanded Route may begin at the point at which the flight enters the area of responsibility of the sending unit or the point before entering the area of responsibility of the receiving unit. The Expanded Route may end at the point at which the flight leaves the area of responsibility of the sending unit or the point beyond the area of responsibility of the receiving unit.
Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 • EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010

3.133 Expanded Route Point Altitude

Expanded Route Point Altitude	
Definition	The estimated altitude over the expanded route point.
Alternate Names	
Has Parts	
Is Part Of	Expanded Route Point
Data Type(s)	Altitude
Range of Values	
Business Rules	
Notes	
Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 • EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010

3.134 Expanded Route Point Time

Expanded Route Point Time	
Definition	The estimated time over the expanded route point.
Alternate Names	
Has Parts	
Is Part Of	Expanded Route Point
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	
Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 • EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010

3.135 FANS/1A Logon Parameters

FANS/1A Logon Parameters	
Definition	The information necessary to establish CPDLC and/or ADS-C connections with a FANS equipped aircraft.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• The FANS Logon Parameters are a structured string that includes the following information: ○ Standard message identifier (SMI): The mandatory address to which uplink messages are routed in the avionics, which comes from a controlled list defined in ARINC 620. Examples of SMIs include: “FML”, “FMR”, “FMD”, “FM3” and “AFD”. ○ Aircraft identification (FMH): The mandatory aircraft identification as received in either the most recently received logon or FAN message. Example FMH/MAS123 ○ Aircraft registration (REG): The mandatory registration details of the aircraft – including the hyphen if applicable - as received in either the most recently received logon or FAN message. Example REG/9V-ABC ○ Aircraft Address (CODE): The optional ICAO 24 bit code that contains the six character hexadecimal translation of the 24 bit aircraft address as received in either the most recently received logon or FAN message. Example CODE/ABC123 ○ Aircraft position information (FPO): The optional position of the aircraft at the time of transmission of the FAN message, if available. Expressed as a latitude/longitude in either dd[NS]ddd[EW] or ddmm[NS]dddmm[EW] format. Examples: FPO/23S150E ; PO/0823N11025E. ○ ATS Application and Version Number (FCO): One or more elements that describe the ATS data link application(s) available in the avionics (i.e. CPDLC and ADS-C). A separate identifier is used for each available application. The value associated with the FCO identifier consists of three letters to describe the application name immediately followed by (i.e. with no intervening spaces) two numeric characters to represent the associated version number. Possible values for the three letters are

	"ATC" (for CPDLC) or "ADS" (for ADS-C), and the possible range of version numbers is 00 to 99, with 00 indicating the version number is not available. Examples: FCO/ATC01 FCO/ADS01 ; FCO/ADS01
Reference	• Asia/Pacific Regional Interface Control Document (ICD) For ATS Interfacility Data Communications (AIDC), version 3, September 2007 • The North Atlantic Common Coordination Interface Control Document, Version 1.2.8 December 2010

3.136 Fissile Excepted Indicator

Fissile Excepted Indicator	
Definition	An indicator of whether the restrictions for fissile material are excepted for a particular package.
Alternate Names	
Has Parts	
Is Part Of	Radioactive Materials
Data Type(s)	Boolean
Range of Values	
Business Rules	• Limit size to 10 characters to reduce risk of code insertion.
Notes	• Regulations provide some exceptions from the requirements for packages containing fissile material, for example if the uranium-235 concentration is less than 1% or if the package contains only limited quantities of fissile material. These are known as fissile excepted packages. Other packaging requirements still apply. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:RadioactiveMaterial /ram:FissileExceptionIndicator
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.137 Fleet Prioritization - Arrival

Fleet Prioritization - Arrival	
Definition	The relative priority of a flight, within a flight operator's fleet of aircraft, defined for a portion or the entire arrival phase of flight.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Integer
Range of Values	[1 - 10]
Business Rules	

Notes	• This concept does not align with operational concepts in Europe and will be revisited in a later version.
	• When this data element is used, Air Navigation Service Provider (ANSP) automation attempts to re-sequence those flights to give better treatment to higher priority flights within the slots assigned to that flight operator.
	• Since different phases of flight require a different mix of TFM solutions to manage traffic flow, separating fleet prioritization into phases of flight allows the flight operator to set priority based on their fleet relative to phase of flight.
	• Example: A flight may be unable to accept vectors en route or a reroute assignment (to save fuel), but may be able to delay departure or gate push back. This flight may receive a higher fleet prioritization in the en route or arrival phase than in the departure phase.
	  ○ A lower number means a higher priority.
	  ○ This optional data element is utilized by the flight operator to communicate to the ANSP its priority of flights within its defined fleet, for the purpose of optimizing the matching between the flight operator's flights and its available slots.
	  ○ If the flight operator omits the Relative Flight Priority for any flight, that flight is ignored during any priority-based re-sequencing.

Reference	• CDM Future Concepts Team discussion at MITRE (Flight Object Fleet Prioritization – Phase of Flight Prioritization), 2012

3.138 Fleet Prioritization - Departure

Fleet Prioritization - Departure	
Definition	The relative priority of a flight, within a flight operator's fleet of aircraft, defined for a portion or the entire departure phase of flight.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Integer
Range of Values	[1 - 10]
Business Rules	

Notes	• This concept does not align with operational concepts in Europe and will be revisited in a later version.
	• When this data element is used, ANSP automation attempts to re-sequence those flights to give better treatment to higher priority flights within the slots en assigned to that flight operator.
	• Since different phases of flight require a different mix of TFM solutions to manage traffic flow, separating fleet prioritization into phases of flight allows the flight operator to set priority based on their fleet relative to phase of flight.
	• Example: A flight may be unable to accept vectors en route or a reroute assignment (to save fuel), but may be able to delay departure or gate push back. This flight may receive a higher fleet prioritization in the en route or arrival phase than in the departure phase.
	  ○ A lower number means a higher priority.
	  ○ This optional data element is utilized by the flight operator to communicate to the ANSP its priority of flights within its defined fleet, for the purpose of optimizing the matching between the flight operator's flights and its available slots.
	  ○ If the flight operator omits the Relative Flight Priority for any flight, that flight is ignored during any priority-based re-sequencing.

Reference	• CDM Future Concepts Team discussion at MITRE (Flight Object Fleet Prioritization – Phase of Flight Prioritization), 2012

3.139 Fleet Prioritization – En route

Fleet Prioritization – En route	
Definition	The relative priority of a flight, within a flight operator's fleet of aircraft, defined for a portion or the entire en route phase of flight
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Integer
Range of Values	[1 - 10]
Business Rules	

Notes	• This concept does not align with operational concepts in Europe and will be revisited in a later version.
	• When this data element is used, ANSP automation attempts to re-sequence those flights to give better treatment to higher priority flights within the slots assigned to that flight operator.
	• Since different phases of flight require a different mix of TFM solutions to manage traffic flow, separating fleet prioritization into phases of flight allows the flight operator to set priority based on their fleet relative to phase of flight.
	• Example: A flight may be unable to accept vectors en route or a reroute assignment (to save fuel), but may be able to delay departure or gate push back. This flight may receive a higher fleet prioritization in the en route or arrival phase than in the departure phase.
	  ○ A lower number means a higher priority.
	  ○ This optional data element is utilized by the flight operator to communicate to the ANSP its priority of flights within its defined fleet, for the purpose of optimizing the matching between the flight operator's flights and its available slots.
	  ○ If the flight operator omits the Relative Flight Priority for any flight, that flight is ignored during any priority-based re-sequencing.

Reference	• CDM Future Concepts Team discussion at MITRE (Flight Object Fleet Prioritization – Phase of Flight Prioritization), 2012

3.140 Flight Cancelled Indicator

Flight Cancelled Indicator	
Definition	Indication the flight has been cancelled after Flight Object creation.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Boolean
Range of Values	
Business Rules	
Notes	
Reference	• EUROCAE- ED-133 - Flight Object Interoperability Specification

3.141 Flight Completed Indicator

Flight Completed Indicator	
Definition	An indicator that the flight was airborne and is now completed.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Boolean
Range of Values	
Business Rules	
Notes	
Reference	

3.142 Flight Filed Indicator

Flight Filed Indicator	
Definition	An indicator that flight information was filed to the appropriate Air Traffic Services authority.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Boolean
Range of Values	
Business Rules	
Notes	• A Flight Object could exist before the flight plan is filed (expressing flight plan intent).
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.143 Flight Information Recipient List

Flight Information Recipient List	
Definition	The list of entities that received the Flight information.
Alternate Names	
Has Parts	Flight Information Recipient Reason
Is Part Of	
Data Type(s)	Container, Unit
Range of Values	
Business Rules	

Notes	• Contains a list of one or more units.
	• Each unit is represented using the four to six character code from ICAO 7910 - Location Indicators that identifies it, if one is available. The first four characters identify the unit, and the last two optional characters identify the sub-unit. If a code is not available, it contains the unit name.
	• Each unit contains the following pieces of information. The data type is listed after the colon.
	  ○ Unit Identifier: Enumeration
	  ○ Sub-Unit Identifier: Alphanumeric String
	• Each unit has a mandatory Flight Information Recipient Reason.

Reference	• IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.144 Flight Information Recipient Reason

Flight Information Recipient Reason	
Definition	The reason the unit received the flight information.
Alternate Names	
Has Parts	
Is Part Of	Flight Information Recipient List
Data Type(s)	Enumeration
Range of Values	{Vicinity, Traversed, Regional View, Additional, General Interest}
Business Rules	
Notes	The meaning for each of these reasons is provided below. • Vicinity: The stakeholder's Area of Interest (AOI) is traversed. The stakeholder's Area of Responsibility (AOR) is not traversed. • Traversed: The stakeholder's AOR is traversed. • Regional View: The stakeholder is informed, because it belongs to the same region as one of the AOR / AOI stakeholders. • Additional: A stakeholder requested publication of the flight information to another stakeholder (e.g. military, security). • General Interest: The stakeholder has expressed interest in receiving the flight information but only has a general interest in the flight information, not a defined need.
Reference	• IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.145 Flight Operator Category

Flight Operator Category	
Definition	The category of the flight operator operating the flight.
Alternate Names	User Category
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	{C, F, G, M, T, O}
Business Rules	• In the United States, the Flight Operator Category is determined by TFMS based on internal matching tables.
Notes	• Range of values: C - Air Carrier F - Freight/Cargo Carrier G - General Aviation M - Military T - Air Taxi O - Other
Reference	• CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.146 Flight Originator

Flight Originator	
Definition	The name of the unit, agency or person filing the flight plan.
Alternate Names	Filed By
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• This data element contains free-form text. • [FAA] This information is part of the supplementary flight plan data and shall be kept readily available by the operator at the departure aerodrome or another agreed location, so that, on request by ATS units, it can be supplied without delay. When transmitted by the AFTN, the message shall be assigned the same priority indicator as that in the request message.
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.147 Flight Plan Accepted Indicator

Flight Plan Accepted Indicator	
Definition	An indicator of acceptance of the flight plan by the appropriate ATS authority.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Boolean
Range of Values	
Business Rules	
Notes	• Supplementary information is stored with the flight planning service (wherever the flight plan is entered, e.g., FSS, DUATS, AOC, etc.). HOST/ERAM only uses the route information (i.e. fields 1-11 for NAS FPs, and fields 3-18 for ICAO FPs). • A Flight Object could exist before the flight plan is accepted (expressing flight plan intent).
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.148 Flight Rules

Flight Rules	
Definition	The regulation, or combination of regulations, that governs all aspects of operations under which the pilot plans to fly.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Flight Rules
Range of Values	
Business Rules	• May be changed by Route-Change Flight Rules (ICAO Item 15c5).

Notes	• The meaning of the values is as follows:
	  ○ I - Instrument Flight Rules (IFR)
	  ○ V - Visual Flight Rules (VFR)
	  ○ Y - IFR first (followed by one or more subsequent changes of flight rules)
	  ○ Z - VFR first (followed by one or more subsequent changes of flight rules)
	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 8a.
	• [NAS] Flight rules are indicated in the altitude field and/or in the route field.
	• [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::FlightPlan.flight_rules

Reference	• Amendment No. 1 To The Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • FAA Order JO 7110.65T, Air Traffic Control, February 2010 • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.149 Flight Status

Flight Status	
Definition	Identification of the aspect of the flight life cycle.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• This element is intended to be generic for all to use, and a placeholder in the core as this element will be further discussed in FIXM 3.0. Regional extensions will address specific needs in FIXM 2.0.0.
Reference	

3.150 Flight Type

Flight Type	
Definition	Indication of the rule under which an air traffic controller provides categorical handling of a flight.
Alternate Names	Type of Flight
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	{M, G, N, X, S}
Business Rules	

Notes	• The meaning of the values is as follows:
	  ○ M - Military
	  ○ G - General Aviation
	  ○ N - Non-Scheduled Air Transport
	  ○ X - Other
	  ○ S - Scheduled Air Service
	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL, populated in Field 8b.
	• [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::FlightPlan.flight_type

Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.151 Following Future Reporting Position

Following Future Reporting Position	
Definition	Estimated second future position of the aircraft transmitted in a non-radar airspace position report.
Alternate Names	
Has Parts	
Is Part Of	Aircraft Planned Reporting Position
Data Type(s)	Location
Range of Values	
Business Rules	
Notes	
Reference	• FAA and Japan Civil Aviation Bureau "Interface Control Document for FAA-JCAB Data Exchange, Ver. 1.0, February 16, 2011 • CSC "Traffic Flow Management Modernization FDB to FTM Data Message Definitions", Feb 12, 2008 • CSC "Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version", Ver. 1.8, April 15, 2011

3.152 Following Future Reporting Position Altitude

Following Future Reporting Position Altitude	
Definition	Expected altitude at the estimated second future position of the aircraft transmitted in a non-radar airspace position report.
Alternate Names	
Has Parts	
Is Part Of	Aircraft Planned Reporting Position
Data Type(s)	Altitude
Range of Values	
Business Rules	
Notes	
Reference	• FAA and Japan Civil Aviation Bureau "Interface Control Document for FAA-JCAB Data Exchange, Ver. 1.0, February 16, 2011 • CSC "Traffic Flow Management Modernization FDB to FTM Data Message Definitions", Feb 12, 2008 • CSC "Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version", Ver. 1.8, April 15, 2011

3.153 Following Future Reporting Position Time - Estimated

Following Future Reporting Position Time - Estimated	
Definition	Estimated time at the second future position of the aircraft transmitted in a non-radar airspace position report.
Alternate Names	
Has Parts	
Is Part Of	Aircraft Planned Reporting Position
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	
Reference	• FAA and Japan Civil Aviation Bureau "Interface Control Document for FAA-JCAB Data Exchange, Ver. 1.0, February 16, 2011 • CSC "Traffic Flow Management Modernization FDB to FTM Data Message Definitions", Feb 12, 2008 • CSC "Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version", Ver. 1.8, April 15, 2011

3.154 Frequency Usage

Frequency Usage	
Definition	The usage of the frequency.
Alternate Names	
Has Parts	
Is Part Of	CPDLC Connection Status
Data Type(s)	Enumeration
Range of Values	{Voice, CPDLC}
Business Rules	
Notes	• If a frequency is provided in the CPDLC Connection Status, this element provides the usage for the frequency. By default, the value is 'Voice'.
Reference	• Asia/Pacific Regional Interface Control Document (ICD) For ATS Interfacility Data Communications (AIDC), version 3, September 2007 • The North Atlantic Common Coordination Interface Control Document, Version 1.2.8 December 2010

3.155 Fuel Endurance

Fuel Endurance	
Definition	The estimated maximum length of time the aircraft can spend in the cruise phase of flight, determined by the amount of fuel at take-off.
Alternate Names	Endurance
Has Parts	
Is Part Of	
Data Type(s)	Time Duration
Range of Values	
Business Rules	
Notes	• [ICAO] Since this data is not part of the filed flight plan, it must be made available by the operator, so that it can be supplied, without delay, when requested by ATS units. • [FAA] This information is part of the supplementary flight plan data and shall be kept readily available by the operator at the departure aerodrome or another agreed location, so that, on request by ATS units, it can be supplied without delay. • [ICAO Standard ATS Messages] Fuel Endurance is transmitted in the ICAO SPL and ALR messages as ICAO Field Type 19a, preceded by 'E/'. • [AFTN] When transmitted by the AFTN, the message shall be assigned the same priority indicator as that in the request message. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::SupplementaryInformation.fuel_endurance
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.156 Globally Unique Flight Identifier

Globally Unique Flight Identifier	
Definition	A reference that uniquely identifies a specific flight and that is independent of any particular system.
Alternate Names	GUFI
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• Per the Engineering Analysis of the Globally Unique Flight Identifier, Construct 2.0, March 2011, every flight data transaction includes the GUFI. • The GUFI is a string consisting of four alphanumeric fields separated by the period character: 1. **Field 1**: Globally unique, predefined country or region code. Two to 10 characters. Examples: us, euro. 2. **Field 2**: Unique organization code. Can be any unique flight operator code, such as a tail number. Two to 10 characters. Must be unique within the given country or region. Examples: FAA, TFMS, UAL, N1745B. 3. **Field 3**: Date-time that the identifier was created. Twenty characters, in FIXM format (to seconds, Z time). Multiple GUFIs for the same country and organization code may have the same date-time, as long as they are differentiated by the fourth field. Example: 2012-05-12T17:43:22Z. 4. **Field 4**: Sequence number. An integer from one to 999999, or any other unique string that can differentiate between GUFIs whose fields 1-3 are identical. In other words, if more than one GUFI is generated during the same second using the same country and organization code, they must each have a different sequence number. Example: 1, 2, 3. • [SESAR Harmonization] Element is not present in SESAR 10.02.05 FO. Element has been added to a list for consideration for inclusion in the SESAR model.
Reference	• Official reference is under development.

3.157 Ground Handling End Time - Actual

Ground Handling End Time - Actual	
Definition	The time when ground handling on the aircraft ends.
Alternate Names	Actual End of Ground Handling Time, AEGT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	• Can be equal to ARDT (Actual Ready Time (for movement) - locally determined.
Reference	• A-CDM Implementation Manual

3.158 Ground Handling Start Time - Actual

Ground Handling Start Time - Actual	
Definition	The time when ground handling on the aircraft starts.
Alternate Names	Actual Commence of Ground Handling Time, ACGT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	• Can be equal to AIBT (to be determined locally).
Reference	• A-CDM Implementation Manual

3.159 Handoff Receiving Sector

Handoff Receiving Sector	
Definition	Identifies the ATC sector receiving control of the aircraft as a result of a handoff.
Alternate Names	
Has Parts	
Is Part Of	Handoff Receiving Unit
Data Type(s)	Sector
Range of Values	
Business Rules	
Notes	
Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • North American (NAM) Common Coordination Interface Control Document (ICD) VOLUME 1: Area Control Centre (ACC) to ACC, 1/20/12 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.160 Handoff Receiving Unit

Handoff Receiving Unit	
Definition	The ATC unit receiving control of the aircraft as a result of a handoff.
Alternate Names	
Has Parts	Handoff Receiving Sector, Delegated Unit Indicator
Is Part Of	
Data Type(s)	Container, Unit
Range of Values	
Business Rules	

Notes	• Contains the four to six character code from ICAO 7910 - Location Indicators that identifies the unit, if one is available. The first four characters identify the unit, and the last two optional characters identify the sub-unit. If a code is not available, it contains the unit name.
	• This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ○ Unit Identifier: Enumeration
	  ○ Sub-Unit Identifier: Alphanumeric String

Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • North American (NAM) Common Coordination Interface Control Document (ICD) VOLUME 1: Area Control Centre (ACC) to ACC, 1/20/12 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 • ICAO 7910, Location Indicators, latest published edition.

3.161 Handoff Transferring Sector

Handoff Transferring Sector	
Definition	Identifies the ATC sector transferring control of the aircraft as a result of a handoff.
Alternate Names	
Has Parts	
Is Part Of	Handoff Transferring Unit
Data Type(s)	Sector
Range of Values	
Business Rules	
Notes	
Reference	• North American (NAM) Common Coordination Interface Control Document (ICD) VOLUME 1: Area Control Centre (ACC) to ACC, 1/20/12 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.162 Handoff Transferring Unit

Handoff Transferring Unit	
Definition	The ATC unit transferring control of the aircraft as a result of a handoff.
Alternate Names	
Has Parts	Handoff Transferring Sector, Delegated Unit Indicator
Is Part Of	
Data Type(s)	Container, Unit
Range of Values	
Business Rules	

Notes	• Contains the four to six character code from ICAO 7910 - Location Indicators that identifies the unit, if one is available. The first four characters identify the unit, and the last two optional characters identify the sub-unit. If a code is not available, it contains the unit name.
	• This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ○ Unit Identifier: Enumeration
	  ○ Sub-Unit Identifier: Alphanumeric String

Reference	• North American (NAM) Common Coordination Interface Control Document (ICD) VOLUME 1: Area Control Centre (ACC) to ACC, 1/20/12 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 • ICAO 7910, Location Indicators, latest published edition.

3.163 Hazard Class and Division

Hazard Class and Division	
Definition	A number assigned to a dangerous good that represents a classification (Class) according to the most dominant hazard it represents, potentially followed by a number representing a subdivision (Division) within the Class.
Alternate Names	HAZMAT Class, UN Class, Hazard Classification ID, Hazard Class / Division
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Line Item Details, Dangerous Goods List of Line Item Detail, Dangerous Goods List of Line Item Details
Data Type(s)	Alphanumeric String
Range of Values	Class: [1,9], Division: [0, 99]
Business Rules	• If there are dangerous goods on board the flight, this element should be populated for emergency response usage. Maximum 100 characters to limit risk of code insertion.
Notes	• Class 1: Explosives, 2: Gases, 3: Flammable Liquid and Combustible Liquid, 4: Flammable Solid, Spontaneously Combustible, Dangerous When Wet, 5: Oxidizer and Organic Peroxide, 6: Poison (Toxic) and Poison Inhalation Hazard, 7: Radioactive, 8: Corrosive, 9: Miscellaneous. Some classes are subdivided with Class and Division separated by a decimal. Classifications are defined by the United Nations. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:HazardClassificationID
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.164 Hold Fix

Hold Fix	
Definition	The location for the flight to Hold along the route of flight.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Location
Range of Values	
Business Rules	
Notes	
Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009

3.165 Hold State - Airborne Indicator

Hold State - Airborne Indicator	
Definition	Specifies whether or not the aircraft is in an airborne hold.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Boolean
Range of Values	
Business Rules	
Notes	
Reference	National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009

3.166 IATA Shipper's Declaration For Dangerous Goods

IATA Shipper's Declaration For Dangerous Goods	
Definition	This is the outermost grouping element for the information required for the shipment of dangerous goods.
Alternate Names	
Has Parts	Shipper's Declaration For Dangerous Goods Line Item Details, Shipper's Declaration For Dangerous Goods Packaging Detail, Shipper's Declaration For Dangerous Goods Header, Shipper's Declaration For Dangerous Goods Summary
Is Part Of	
Data Type(s)	Container
Range of Values	
Business Rules	• Required if the shipment contains dangerous goods.
Notes	• IATA model namespace = xmlns:rsm='iata:shippersdeclarationfordangerousgoods:1' XML Element = ram:ShippersDeclarationForDangerousGoods This complex Element is a Grouping element for XML.
Reference	• IATA SDDG Specification v2.1

3.167 In-Block Time - Actual

In-Block Time - Actual	
Definition	The time at which a flight arrives at the stand.
Alternate Names	Actual Gate Time of Arrival, IN Time, Actual In Block Time, AIBT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	• The field is null, if no information is available.
Notes	• For Airport CDM (A-CDM), it is equivalent to Airline/Handler ATA - Actual Time of Arrival, ACARS= IN. • In the United States, the IN Time is reported by a flight operator using CDM messages.
Reference	• CSC, Traffic Flow Management System-to-Airline Operation Centre Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012 • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • A-CDM Implementation Manual

3.168 In-Block Time - Controlled

In-Block Time - Controlled	
Definition	The time at which a flight is required to arrive at the destination stand as determined by a TMI.
Alternate Names	Controlled Gate Time of Arrival, CGTA, Calculated In-Block Time, CIBT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	• A constraint placed by the ANSP as part of traffic flow management.
Reference	

3.169 In-Block Time - Estimated

In-Block Time - Estimated	
Definition	The estimated time at which a flight will arrive at the stand.
Alternate Names	Estimated Gate Time of Arrival, LGTA, Estimated In-Block Time, EIBT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	• For A-CDM, this data element is equivalent to Airline/Handler ETA – Estimated Time of Arrival. • In the United States, this data element represents the most reliable arrival time at the gate/stand, as determined by the Airspace user considering all information available.
Reference	• CSC, Traffic Flow Management System-to-Airline Operation Centre Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012 • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • A-CDM Implementation Manual

3.170 In-Block Time - Initial

In-Block Time - Initial	
Definition	The original stand arrival time of the flight when the flight is first created.
Alternate Names	Initial Gate Time of Arrival, IGTA, Initial In Blocks Time, IIBT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	• In the United States, this data element is determined by TFMS when a flight is first created in TFMS, using the in-block arrival time from whatever message created the flight as the initial in-block time. • The field cannot be null. • The value of this field will not be modified by subsequent flight data updates.
Notes	• In the United States, there are three sources of data that cause a flight to be created: Official Airline Guide (OAG) schedule data, CDM message (from the airspace user), or a flight plan. The initial in-block time (a.k.a in the United States as the IGTA - Initial Gate Time of Arrival) is, therefore, set to either the scheduled OAG arrival time, the In-Block Airline Estimated Time (a.k.a. in the United States as the LGTA - Airline Gate of Arrival) from the first CDM message, or a TFMS modelled arrival time based on the planned departure time and the estimated en-route time from the flight plan filed. • In U.S. CDM, it is used during GDP processing to determine the order in which flights should be assigned to slots. This preserves the 'rights' of a flight in a GDP or AFP in the case the flight is delayed prior to the GDP/AFP being issued.
Reference	• CSC 'Traffic Flow Management System ADL and Broadcast File Format Specification for the Traffic Flow Management-Modernization (TFM-M) Program' ver. 12.4, January 2011

3.171 Initial Approach Fix

Initial Approach Fix	
Definition	The point on the arrival route at which arrival sequencing activities are focused, such that, when the flight passes this point, a stable runway arrival sequence can be provided.
Alternate Names	IAF
Has Parts	
Is Part Of	
Data Type(s)	Location
Range of Values	
Business Rules	• This point is used to establish en route and arrival time to gain/lose times provisions, in order to achieve arrival management and sequence plans. • Has relationship to Approach Time-Estimated. • This may be a published fix/stack reference point. • Once the aircraft progresses beyond this point (i.e. it is no longer subject to arrival holding at or before this point), the flight's place in a stable runway sequence becomes frozen.
Notes	• This is used as part of the European arrival management activities and may differ from the U.S. Airport Arrival fix - which is used to mark the transition of control between the en route and Approach unit responsibilities. • This identified fix, which is along the approach path, is used to identify the point after which the flight's place becomes frozen within the on-going landing sequence. • The landing sequence is used by the approach controllers, tower controllers, the airport operations, and the aircraft operators. Prior to passing the IAF, sequencing proposals for the aircraft may have been proposed but may be subject to change.
Reference	

3.172 Inter-Unit Remarks

Inter-Unit Remarks	
Definition	Plain language remarks passed between ATS units with the purpose of providing additional information about the flight (e.g., requested flight level changes after take-off).
Alternate Names	Remarks
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• This data element contains free-form text. • [NAS CMS[This data element corresponds to Field 11. • [ICAO Standard ATS Messages] Transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18, preceded by 'RMK/'. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::OtherInformation.other_remarks
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.173 Last Contact Radio Frequency

Last Contact Radio Frequency	
Definition	The transmitting/receiving frequency of the last two-way contact between the aircraft and an ATS unit.
Alternate Names	Frequency of Last Contact
Has Parts	
Is Part Of	
Data Type(s)	Frequency
Range of Values	
Business Rules	
Notes	• [ICAO Standard ATS Messages] Transmitted in ALR as ICAO Field Type 20d, or in RCF as ICAO Field Type 21b. If the information is not available, value should be NIL or NOT KNOWN. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as Aircraft ::EmergencyData.frequency_of_last_contact
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.174 Last Contact Time

Last Contact Time	
Definition	The time of the last two-way contact between the aircraft and an ATS unit. The time is given in UTC.
Alternate Names	Time of Last Two-way Contact
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	• [ICAO Standard ATS Messages] Transmitted in ALR as ICAO Field Type 20c, or in RCF as ICAO Field Type 21a. If the information is not available, value should be NIL or NOT KNOWN. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as Aircraft ::EmergencyData. time_of_last_two_way_contact
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.175 Last Contact Unit

Last Contact Unit	
Definition	The last ATS unit which had two-way contact with the aircraft.
Alternate Names	Unit Which Made Last Contact
Has Parts	
Is Part Of	
Data Type(s)	Unit
Range of Values	ATS unit indicators are published in ICAO Doc. 7910- Location Indicators.
Business Rules	• Per ICAO Doc. 7910 - Location Indicators, the first letter shall be the letter assigned to the routing area within which the location is situated. The second letter shall be the letter assigned to the state or territory. The third letter should be assigned to assist in the process of routing to that communication centre. States assigned the letter N should arrange their specific four-letter locations so as to avoid the use of the combination NN for the third and fourth letters.
Notes	• [ICAO Standard ATS Messages] Transmitted in ALR as ICAO Field Type 20b. If the information is not available, value should be NIL or NOT KNOWN. • [SESAR Harmonization] Element is not present in the SESAR 10.02.05 FO. Element has been added to a list for consideration for inclusion in the SESAR model.
Reference	• ICAO Doc. 7910 - Location Indicators, Edition No. 138, 2010 • Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.176 Last Known Position Report

Last Known Position Report	
Definition	The position of the aircraft last known to ATS and a corresponding timestamp.
Alternate Names	Last Reported Position
Has Parts	
Is Part Of	
Data Type(s)	Complex
Range of Values	
Business Rules	
Notes	• This is a compound data element. It has both a position component and a time component. • [ICAO Standard ATS Messages] Transmitted in ALR as ICAO Field Type 20e. The ICAO field 20e contains both the last reported position and the time over that position. When used in the ICAO FPL field 20, if the information is not available, value should be NIL or NOT KNOWN. Also transmitted in RCF as ICAO Field Type 21c (position) and 21d (time). • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as Aircraft::EmergencyData.last_reported_position and Aircraft ::EmergencyData.time_at_last_reported_position
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.177 Last Known Position Report - Determination Method

Last Known Position Report - Determination Method	
Definition	A plain-language description of the method used to determine the last known position of an aircraft.
Alternate Names	Method of Determining Last Known Position
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• This data element contains free-form text. • [ICAO Standard ATS Messages] Transmitted in ALR as ICAO Field Type 20f. When used in the ICAO FPL field 20, if the information is not available, value should be NIL or NOT KNOWN. • [SESAR Harmonization] Element is not present in the SESAR 10.02.05 FO. Element has been added to a list for consideration for inclusion in the SESAR model.
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.178 Life Jacket Type

Life Jacket Type	
Definition	The type of life jackets available on board the aircraft.
Alternate Names	Jackets
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	One or more of the following: {L, F, U, V}
Business Rules	

Notes	• The meaning of the values is as follows:
	  ○ L - Lights
	  ○ F - Fluorescein
	  ○ U - UHF frequency 243.0MHz
	  ○ V - VHF frequency 121.5MHz
	• [ICAO] Since this data is not part of the filed flight plan, it must be made available by the operator, so that it can be supplied without delay when requested by ATS units.
	• [FAA] This information is part of the supplementary flight plan data and shall be kept readily available by the operator at the departure aerodrome or another agreed location, so that, on request by ATS units, it can be supplied without delay. Supplementary information is stored with the flight planning service (wherever the flight plan is entered e.g., FSS, DUATS, AOC, etc.).
	• [ICAO Standard ATS Messages] Transmitted in ALR and SPL as ICAO Field Type 19e, preceded by 'J/'.
	• [AFTN] When transmitted by the AFTN, the message shall be assigned the same priority indicator as that in the request message.
	• [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::LifeJacketEquipment

Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.179 Low Dispersible Material Indicator

Low Dispersible Material Indicator	
Definition	An indicator the dangerous good is a low dispersible radioactive material, a solid radioactive material or a solid radioactive material in a sealed capsule, which has limited dispersibility and is not in powder form.
Alternate Names	Low Dispersible Radioactive Material, LDM
Has Parts	
Is Part Of	Radioactive Materials, Radionuclide
Data Type(s)	Boolean
Range of Values	
Business Rules	
Notes	• IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:RadioactiveMaterial /ram:ApplicableRadioactiveIsotope/ /ram:LowDispersibleNote
Reference	• IATA SDDG Specification v2.1 • IATA Dangerous Goods Regulations, January 2011 • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.180 Major Carrier Identifier

Major Carrier Identifier	
Definition	The identification of the carrier who has contracted out the operation of the flight to a sub-carrier.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• There may be one or none of these data elements. • The Major Carrier Identifier cannot be the same as the carrier code encoded in the Aircraft Identification field; that is, the major carrier is only defined if different from the aircraft operator.
Notes	• The format assumes the Major Carrier Identifier has a three-letter code: [A-Z]{3}. For example, AAL. • There is no explicit definition of the sub-carrier. If the Major Carrier Identifier field exists, the Aircraft Operator is, by implication, the sub-carrier.
Reference	

3.181 Marine Pollutant Indicator

Marine Pollutant Indicator	
Definition	An indicator if the transported dangerous goods have marine pollutant content.
Alternate Names	Marine Pollutant
Has Parts	
Is Part Of	Dangerous Goods List of Line Item Detail
Data Type(s)	Boolean
Range of Values	
Business Rules	
Notes	• Marine pollutants could cause significant damage, if released into a water source or ocean. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:MarinePollutantIndicator
Reference	• 49 CFR 172.203 • IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • 49 CFR 172.101, Appendix B, Table of Hazardous Materials and Special Provisions, Purpose and Use of Hazardous Materials • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.182 Navigation Capabilities

Navigation Capabilities	
Definition	The serviceable navigation equipment available on board the aircraft at the time of flight and for which the flight crew is qualified.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Complex
Range of Values	One or more of the following: {A, B, C, D, F, G, I, K, L, O, T, W, X}
Business Rules	
Notes	• This data element can contain either an alphanumeric string (free-form text) or a combination of the following enumerated ICAO codes for navigation capabilities: ○ A - GBAS ○ B - LPV ○ C - LORAN C ○ D - DME ○ F - ADF ○ G - GNSS ○ I - Inertial Navigation ○ K - MLS ○ L - ILS ○ O - VOR ○ T - TACAN ○ W - RVSM ○ X - MNPS • [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 10a, combined with Communications Capabilities. If navigation capabilities other than those included in the range of values or specific in 'PBN/' need to be indicated, they are transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18 preceded by 'NAV/' (only when equipment cannot be expressed with the 10a pre-defined values). GNSS augmentation is also indicated as Field Type 18 preceded by 'NAV/', and 'G' is used in item 10a in this case. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::EquipmentCapabilityandStatus and as

	FGI::OtherInformation.navigation_equipment for the NAV/part; the 10a indicators are in FGI::EquipmentCapabilityansStatus
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.183 Next Future Reporting Position

Next Future Reporting Position	
Definition	Estimated next future position of the aircraft transmitted in a non-radar airspace position report.
Alternate Names	
Has Parts	
Is Part Of	Aircraft Planned Reporting Position
Data Type(s)	Location
Range of Values	
Business Rules	
Notes	
Reference	• FAA and Japan Civil Aviation Bureau "Interface Control Document for FAA-JCAB Data Exchange, Ver. 1.0, February 16, 2011 • CSC "Traffic Flow Management Modernization FDB to FTM Data Message Definitions", Feb 12, 2008 • CSC "Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version", Ver. 1.8, April 15, 2011

3.184 Next Future Reporting Position Altitude

Next Future Reporting Position Altitude	
Definition	Expected altitude at the estimated next future position of the aircraft transmitted in a non-radar airspace position report.
Alternate Names	
Has Parts	
Is Part Of	Aircraft Planned Reporting Position
Data Type(s)	Altitude
Range of Values	
Business Rules	
Notes	
Reference	• FAA and Japan Civil Aviation Bureau "Interface Control Document for FAA-JCAB Data Exchange, Ver. 1.0, February 16, 2011 • CSC "Traffic Flow Management Modernization FDB to FTM Data Message Definitions", Feb 12, 2008 • CSC "Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version", Ver. 1.8, April 15, 2011

3.185 Next Future Reporting Position Time - Estimated

Next Future Reporting Position Time - Estimated	
Definition	Estimated time at the next future position of the aircraft transmitted in a non-radar airspace position report.
Alternate Names	
Has Parts	
Is Part Of	Aircraft Planned Reporting Position
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	
Reference	• FAA and Japan Civil Aviation Bureau "Interface Control Document for FAA-JCAB Data Exchange, Ver. 1.0, February 16, 2011 • CSC "Traffic Flow Management Modernization FDB to FTM Data Message Definitions", Feb 12, 2008 • CSC "Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version", Ver. 1.8, April 15, 2011

3.186 Number of Persons on Board

Number of Persons on Board	
Definition	The total number of persons (passengers and crew) on board the aircraft.
Alternate Names	Persons on Board, Souls on Board
Has Parts	
Is Part Of	
Data Type(s)	Integer
Range of Values	[0-999]
Business Rules	
Notes	• Currently, the data is obtained manually and is required by letters of agreement between airport authorities and the FAA. • [ICAO] Since this data is not part of the filed flight plan, it must be made available by the operator, so that it can be supplied without delay when requested by ATS units. • [ICAO Standard ATS Messages] Transmitted in ALR and SPL as ICAO Field Type 19b, preceded by 'P/'. • [AFTN] When transmitted by the AFTN, the message shall be assigned the same priority indicator as that in the request message. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::SupplementaryInformation.number_of_persons
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.187 Off Block Time - Estimated

Off Block Time - Estimated	
Definition	The estimated time at which a flight will depart from the stand.
Alternate Names	Estimated Gate Time of Departure, LGTD, Estimated Off Block Time, EOBT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	As this element represents the time for an aircraft to depart the gate, the Flight Object for an Airfile flight will not have a time populated in this element.
Notes	• In the United States, this data element represents the most reliable departure time from the gate/stand as determined by the Airspace user, considering all information available. • ICAO defines this element as the estimated time at which the aircraft will start movement associated with departure. • This data element can be used to communicate a revised departure time due to a delay. • [ICAO Standard ATS Messages] This data element is a combination of ICAO Field Type 13b (time) and 18 DOF/ (date). Currently, the ICAO FPL allows specification of the date of flight through a two digit prefix to the departure time. The time is transmitted in FPL, ARR, CHG, CNL, and DLA and RQS messages transmitted before departure and in RQP message, if known, as ICAO Field Type 13b. The date is transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18, preceded by 'DOF/'. • [NAS CMS] This data element corresponds to Field 07d when 07d is a P-time. • [SESAR Harmonization] The departure date is present in the SESAR 10.02.05 FO model as FGI::EstimatedOffBlockDate and FGI::EstimatedOffBlockTime
Reference	• CSC, Traffic Flow Management System-to-Airline Operation Centre Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012 • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • A-CDM Implementation Manual • Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM

	ICAO 4444), 2007

3.188 Off-Block Ready Time - Actual

Off-Block Ready Time - Actual	
Definition	The time when the aircraft is ready for start-up/pushback or taxi immediately after clearance delivery.
Alternate Names	Actual Ready Time, ARDT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	
Reference	• A-CDM Implementation Manual

3.189 Off-Block Ready Time - Target

Off-Block Ready Time - Target	
Definition	The time an Aircraft Operator or Ground Handler estimates an aircraft will be ready, all doors closed, boarding bridge removed, push back vehicle available and ready to start up / push back immediately upon reception of clearance from the tower.
Alternate Names	Target Off-Block Time, TOBT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	
Reference	• A-CDM Implementation Manual

3.190 Off-Block Time - Actual

Off-Block Time - Actual	
Definition	The time at which a flight departs from the stand.
Alternate Names	Actual Gate Time of Departure, OUT Time, Actual Off Block Time, AOBT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	• The field is null if no information is available.
Notes	• For A-CDM it is equivalent to Airline / Handlers ATD – Actual Time of Departure & ACARS = OUT. • In the United States, the OUT time is reported by a flight operator using CDM messages. It is used to determine that a flight is in taxi status (off block but not yet departed) which affects how flights are processed by some Traffic Management Initiatives.
Reference	• CSC, Traffic Flow Management System-to-Airline Operation Centre Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012 • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • A-CDM Implementation Manual

3.191 Off-Block Time - Controlled

Off-Block Time - Controlled	
Definition	The time at which a flight is required to depart from the stand as determined by a TMI.
Alternate Names	Controlled Gate Time of Departure, CGTD, Calculated Off Block Time, COBT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	• A constraint placed by the ANSP as part of traffic flow management.
Reference	

3.192 Off-Block Time - Initial

Off-Block Time - Initial	
Definition	The date and time at which a flight was originally planning to depart the stand.
Alternate Names	Initial Gate Time of Departure, IGTD, Initial Off Blocks Time (IOBT)
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	• In the United States, this data element is determined by TFMS when a flight is first created in TFMS, using the off-block departure time from whatever message created the flight as the initial off-block time. • The field cannot be null. • The value of this field will not be modified by subsequent flight data updates
Notes	• In the United States, there are three sources of data that cause a flight to be created: OAG schedule data, CDM message (from the airspace user), or a flight plan. The initial off-block time (a.k.a in the United States as the IGTD - Initial Gate Time of Departure) is therefore set to either the scheduled OAG departure time, the Off-Block Airline Estimated Time (a.k.a. in the United States as the LGTD - Airline Gate of Departure) from the first CDM message, or the planned departure time from the flight plan. • In U.S. CDM, it is used in TFMS for flight matching to distinguish one flight from another when the same Flight ID, origin, and destination appear for two different flights. For CDM message exchange, the Flight ID, Origin, Destination, and IGTD together form a unique flight identifier.
Reference	• CSC, Traffic Flow Management System-to-Airline Operation Centre Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012

3.193 On Board Dangerous Goods Location

On Board Dangerous Goods Location	
Definition	The location of a dangerous goods shipment inside the airframe.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• If there are dangerous goods on board the flight, this element should be populated for emergency response usage. • Maximum size of 100 characters to limit risk of code insertion.
Notes	• This data element contains free-form text. • Certain hazardous material (HAZMAT) shipments have restrictions on where they can be placed on board the airframe (CFR 49 172.101). For example, Acetone can be stored either on deck or under deck. However, this data element is envisioned to be more specific to include text such as rear cargo hold.
Reference	• 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.194 Original Destination Aerodrome

Original Destination Aerodrome	
Definition	The Original Destination Airport is the Destination Airport submitted when a Flight Plan was initially filed.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Aerodrome
Range of Values	
Business Rules	
Notes	• Subsequent amendments might change the Destination Airport for the flight (e.g., diversions), but the Original Destination Airport will not be modified.
Reference	• FAA and Japan Civil Aviation Bureau 'Interface Control Document for FAA-JCAB Data Exchange, Ver. 1.0, February 16, 2011 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.195 Originator AFTN Address

Originator AFTN Address	
Definition	The originator's eight-letter AFTN address, or other appropriate contact details, in cases where the originator of the flight plan may not be readily identified.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	The range of values for the 4-letter location identifiers is published in ICAO Doc. 7910 - Location Indicators. Three letter designators are published in ICAO Doc. 8585 - Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services.
Business Rules	• If supplementary data is not part of the Flight Object, (as may be the case as a result of data being entered via a legacy system), it can be obtained from this location.
Notes	• This data element can contain free-form text. • This data element is comprised of a four-letter ICAO location indicator, followed by three letters identifying the organization or service address, followed by one letter identifying the department or division within the organization addressed. If a specific one-letter identifier is not required, the letter X is used as the final character. • [ICAO Standard ATS Messages] Transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18, preceded by 'ORGN/'. • [SESAR Harmonization] Element is not present in the SESAR 10.02.05 FO but has been added to a list for consideration for inclusion in the SESAR model.
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • ICAO Doc. 8585, Designators for Aircraft Operating Agencies, Aeronautical Authorities and Service • ICAO Doc. 7910: Location Indicators, Edition No. 138, 2010 • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.196 Other Flight Information

Other Flight Information	
Definition	This element consists of an identification tag/indicator and the relevant value. This information is "extra" information about the flight that does not fall into some other predefined category.
Alternate Names	ICAO Item 18 adapted indicators
Has Parts	
Is Part Of	
Data Type(s)	Complex
Range of Values	
Business Rules	

Notes	• This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ○ Identification tag: Up to four character tag, formatted as an Alpha string.
	  ○ Identification value: Free form text that contains the content associated with the Identification Tag. Formatted as an Alphanumeric string.

Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • North American (NAM) Common Coordination Interface Control Document (ICD) VOLUME 1: Area Control Centre (ACC) to ACC, 1/20/12

3.197 Other Search and Rescue Information

Other Search and Rescue Information	
Definition	Other pertinent information not captured elsewhere that is needed to notify appropriate organizations regarding aircraft in need of search and rescue.
Alternate Names	Other Pertinent Information
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• This data element contains free-form text. • [ICAO Standard ATS Messages] Transmitted in ALR as ICAO Field Type 20h. When used in the ICAO FPL field 20, if the information is not available, value should be NIL or NOT KNOWN. • [SESAR Harmonization] Element is not present in the SESAR 10.02.05 FO. Element has been added to a list for consideration for inclusion in SESAR model.
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.198 Overpack Indicator

Overpack Indicator	
Definition	An indicator that individual packages are assembled into a single unit for handling.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Boolean
Range of Values	
Business Rules	
Notes	• This element used to be referenced from IATA's schema, but since v2.1 of the dangerous good specifications was released, it no longer references IATA for this element. This is because there is no longer a single element for Overpack, but rather an entire grouping describing what is in an overpack down to the subpackage level. This element will be used to signify if the specific material is contained within an overpack or not. • The statement 'Overpack Used' or 'Overpack' must be inserted for packages that are within an overpack.
Reference	• 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.199 Package Height

Package Height	
Definition	The vertical component of the package's volumetric dimensions.
Alternate Names	
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Packaging Detail, Dangerous Goods List of Overpack Detail, Dangerous Goods Package Details
Data Type(s)	Float
Range of Values	
Business Rules	
Notes	• The units of measure are an attribute (unitCode) to the Package Height. Units of Measure selected from Code List. UNECE Recommendation Number 20 - Codes for Units of Measure Used in International Trade - Annex I can be used. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:LinearSpatialDimension /ram:HeightMeasure the units of measure are expressed in the unitCode attribute. ram:LinearSpatialDimension is used within ram:SpecifiedLogisticsPackage and ram:SpecifiedOverpackPackage.
Reference	• IATA SDDG Specification v2.1 • UNECE Recommendation Number 20, Annex I

3.200 Package Length

Package Length	
Definition	The lateral component of the package's volumetric dimensions.
Alternate Names	
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Packaging Detail, Dangerous Goods List of Overpack Detail, Dangerous Goods Package Details
Data Type(s)	Float
Range of Values	
Business Rules	
Notes	• The UOM are an attribute (unitCode) to the Package Length. Units of Measure selected from Code List. UNECE Recommendation Number 20 - Codes for Units of Measure Used in International Trade - Annex I can be used. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:LinearSpatialDimension /ram:LengthMeasure. The units of measure are identified in the unitCode attribute. The ram:LinearSpatialDimension element is used by both the ram:SpecifiedLogisticsPackage and the ram:SpecifiedOverpackPackage.
Reference	• IATA SDDG Specification v2.1 • UNECE Recommendation Number 20, Annex I

3.201 Package Width

Package Width	
Definition	The depth component of the package's volumetric dimensions.
Alternate Names	
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Packaging Detail, Dangerous Goods List of Overpack Detail, Dangerous Goods Package Details
Data Type(s)	Float
Range of Values	
Business Rules	
Notes	• The UOM are an attribute (unitCode) to the Package Width. Units of Measure selected from Code List. UNECE Recommendation Number 20 - Codes for Units of Measure Used in International Trade - Annex I can be used. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:LinearSpatialDimension /ram:WidthMeasure. The units of measure are identified in the unitCode attribute. The ram:LinearSpatialDimension element is used by both the ram:SpecifiedLogisticsPackage and the ram:SpecifiedOverpackPackage.
Reference	• IATA SDDG Specification v2.1 • UNECE Recommendation Number 20, Annex I

3.202 Packing Group

Packing Group	
Definition	A code that indicates the relative degree of danger presented by various articles and substances within a Class or Division.
Alternate Names	
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Line Item Details, Dangerous Goods List of Line Item Detail, Dangerous Goods List of Line Item Details
Data Type(s)	Enumeration
Range of Values	{I, II, III}
Business Rules	• If there are dangerous goods on board the flight, this element should be populated for emergency response usage.
Notes	• Roman numerals I, II and III are used to represent high danger, medium danger, and low danger, respectively. • IATA specifies a maximum size of three characters. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:PackagingDangerLevelCode
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.203 Packing Instruction Number

Packing Instruction Number	
Definition	A number that corresponds to packing instructions required by U.S. and international regulations.
Alternate Names	
Has Parts	
Is Part Of	Dangerous Goods List of Line Item Detail
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• The packing instruction number is applicable to a UN number/Proper Shipping Name entry. • It is a three-numeric value which may be preceded by the letter 'Y'. • Format: nnn or Ynnn • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:PackingInstructionTypeCode
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.204 Performance-Based Navigation Capabilities

Performance-Based Navigation Capabilities	
Definition	A coded category denoting which Required Navigation Performance (RNP) and Area Navigation (RNAV) requirements can be met by the aircraft while operating in the context of a particular airspace when supported by the appropriate navigation infrastructure.
Alternate Names	PBN
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	One or up to 8 of the following: {A1, B1, B2, B3, B4, B5, B6, C1, C2, C3, C4, D1, D2, D3, D4, L1, O1, O2, O3, O4, S1, S2, T1, T2}
Business Rules	
Notes	• The meanings of the values are as follows: ○ A1 - RNAV 10 (RNP 10) ○ B1 - RNAV 5 All Permitted Sensors ○ B2 - RNAV 5 GNSS ○ B3 - RNAV 5 DME/DME ○ B4 - RNAV 5 VOR/DME ○ B5 - RNAV 5 INS or IRS ○ B6 - RNAV 5 LORAN-C ○ C1 - RNAV 2 All Permitted Sensors ○ C2 - RNAV 2 GNSS ○ C3 - RNAV 2 DME/DME ○ C4 - RNAV 2 DME/DME/IRU ○ D1 - RNAV 1 All Permitted Sensors ○ D2 - RNAV 1 GNSS ○ D3 - RNAV 1 DME/DME ○ D4 - RNAV 1 DME/DME/IRU ○ L1 - RNP 4 ○ O1 - Basic RNP 1 All Permitted Sensors ○ O2 - Basic RNP 1 GNSS ○ O3 - Basic RNP 1 DME/DME

	○ O4 - Basic RNP 1 DME/DME/IRU ○ S1 - RNP APCH ○ S2 - RNP APCH with Barometric Vertical Navigation ○ T1 - RNP AR APCH with RF (Authorization Required) ○ T2 - RNP AR APCH without RF (Authorization Required) • [ICAO Standard ATS Messages] Transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18, preceded by 'PBN/'. The letter 'R' is included in ICAO Field Type 10a, transmitted in ALR, FPL, and CPL, to indicate that performance based navigation levels are specified in Item 18. • [SESAR Harmonization] Element is not present in the SESAR 10.02.05 FO. Element has been added to a list for consideration for inclusion in the SESAR model.
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.205 Physical and Chemical Form

Physical and Chemical Form	
Definition	A description of the physical and chemical form when the dangerous goods are radioactive.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• Maximum size of 100 characters to limit risk of code insertion.
Notes	• This element contains free-form text. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:RadioactiveMaterial /ram:ApplicableRadioactiveIsotope /ram:PhysicalChemicalFormNote
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.206 Pilot In Command

Pilot In Command	
Definition	The name of the pilot in command of the aircraft.
Alternate Names	PIC
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• This data element contains free-form text. • [ICAO] Since this data is not part of the filed flight plan, it must be made available by the operator, so that it can be supplied without delay when requested by ATS units. • [FAA] This information is part of the supplementary flight plan data and shall be kept readily available by the operator at the departure aerodrome or another agreed location, so that, on request by ATS units, it can be supplied without delay. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::SupplementaryInformation.pilot_name • [ICAO Standard ATS Messages] Transmitted in ALR and SPL as ICAO Field Type 19i, preceded by 'C/'. • [AFTN] When transmitted by the AFTN, the message shall be assigned the same priority indicator as that in the request message.
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.207 Point Out - Originating Sector

Point Out - Originating Sector	
Definition	Identifies the ATC sector originating the point out.
Alternate Names	
Has Parts	
Is Part Of	Point Out - Originating Unit
Data Type(s)	Sector
Range of Values	
Business Rules	• In the case of units without defined sectors, such as military units, identifies the appropriate working position.
Notes	
Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.208 Point Out - Originating Unit

Point Out - Originating Unit	
Definition	Identifies the ATC unit originating the point out.
Alternate Names	
Has Parts	Point Out - Originating Sector
Is Part Of	
Data Type(s)	Container, Unit
Range of Values	
Business Rules	• The usage of point out is to physically point to the target on the receiving controller's display.

Notes	• Contains the four to six character code from ICAO 7910 - Location Indicators that identifies the unit, if one is available. The first four characters identify the unit, and the last two optional characters identify the sub-unit. If a code is not available, it contains the unit name.
	• This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ○ Unit Identifier: Enumeration
	  ○ Sub-Unit Identifier: Alphanumeric String

Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 • ICAO 7910, Location Indicators, latest published edition.

3.209 Point Out - Receiving Sector

Point Out - Receiving Sector	
Definition	Identifies the ATC sector receiving the point out.
Alternate Names	
Has Parts	
Is Part Of	Point Out - Receiving Unit
Data Type(s)	Sector
Range of Values	
Business Rules	• In the case of units without defined sectors, such as military units, identifies the appropriate working position.
Notes	
Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.210 Point Out - Receiving Unit

Point Out - Receiving Unit	
Definition	Identifies the ATC unit receiving the point out.
Alternate Names	
Has Parts	Point Out - Receiving Sector
Is Part Of	
Data Type(s)	Container, Unit
Range of Values	
Business Rules	• The usage of point out is to physically point to the target on the receiving controller's display.

Notes	• Contains the four to six character code from ICAO 7910 - Location Indicators that identifies the unit, if one is available. The first four characters identify the unit, and the last two optional characters identify the sub-unit. If a code is not available, it contains the unit name.
	• This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ○ Unit Identifier: Enumeration
	  ○ Sub-Unit Identifier: Alphanumeric String

Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 • ICAO 7910, Location Indicators, latest published edition.

3.211 Post Office Box

Post Office Box	
Definition	The Post Office (PO) Box number portion of a structured postal address.
Alternate Names	Postal Structured Address
Has Parts	
Is Part Of	Postal Structured Address
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• IATA specifies a maximum size of 100 characters. IATA data model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:PostalTradeAddress /ram:PostOfficeBox
Reference	• IATA SDDG Specification v2.1

3.212 Postal Structured Address

Postal Structured Address	
Definition	The XML Grouping Element that contains the parts of a Postal Address that is broken into its component parts (Structured).
Alternate Names	
Has Parts	Department, ZIP or Postal Code, Post Office Box, City Name, Region Name, Country Name, Street, Country Code
Is Part Of	Consignee Name and Address, Other Party Name and Address, Shipper Name and Address
Data Type(s)	Container
Range of Values	
Business Rules	• The Address of Shipper (Consignor), Consignee, and Other Party should be in a structured format for compatibility with IATA.
Notes	• IATA model namespace = xmlns:ram='iata:datamodel:3' XML Element = ram:PostalStructuredAddress
Reference	• IATA SDDG Specification v2.1

3.213 Predicted Airways

Predicted Airways	
Definition	Current prediction of the airways along the trajectory of a flight.
Alternate Names	
Has Parts	
Is Part Of	Route Impact List
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• In the United States, the TFMS Aircraft Situation Display to Industry (ASDI) feed provides the list of airways as shown in the example below: ○ <nxce:airway sequenceNumber="1">ACO2</nxce:airway> ○ <nxce:airway sequenceNumber="2">SBV4</nxce:airway>
Reference	• CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.214 Predicted Sectors

Predicted Sectors	
Definition	Current prediction of the sectors along the trajectory of a flight.
Alternate Names	
Has Parts	
Is Part Of	Route Impact List
Data Type(s)	Complex
Range of Values	
Business Rules	
Notes	• Complex data type consists of a series of Sector data types • In the United States, the TFMS ASDI feed provides the list of sectors as shown in the example below: ○ <nxce:sector sequenceNumber="1">ZOBDTW</nxce:sector> ○ <nxce:sector sequenceNumber="2">ZOB21</nxce:sector> ○ <nxce:sector sequenceNumber="3">ZOB75</nxce:sector> ○ <nxce:sector sequenceNumber="4">ZOB48</nxce:sector> ○ <nxce:sector sequenceNumber="5">ZDC22</nxce:sector> ○ <nxce:sector sequenceNumber="6">ZDCRDU</nxce:sector> • The List of Sectors includes also the terminal control area sectors.
Reference	• CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.215 Predicted Units

Predicted Units	
Definition	Current prediction of the en route Air Traffic Control units (centres) along the trajectory of a flight.
Alternate Names	Predicted Centres
Has Parts	
Is Part Of	Route Impact List
Data Type(s)	Complex
Range of Values	
Business Rules	

Notes	• Complex data type consists of a series of Unit data types.
	• In the United States, the TFMS ASDI feed provides the list of centres as shown in the example below:
	  ○ <nxce:center sequenceNumber="1">ZOB</nxce:center>
	  ○ <nxce:center sequenceNumber="2">ZDC</nxce:center>

Reference	• CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.216 Previous SSR Mode and Beacon Code

Previous SSR Mode and Beacon Code	
Definition	The Secondary surveillance radar (SSR) mode and code the flight was transponding before the current SSR Mode and Code.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Beacon Code & Mode
Range of Values	
Business Rules	

Notes	• This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ○ SSR Mode: Enumeration
	  ○ Beacon Code: Numeric string

Reference	• EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010

3.217 Product Name

Product Name	
Definition	The commonly used trade name associated with a dangerous good.
Alternate Names	Trade Name, Hazardous Material
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• This data element contains free form text. • The Product Name (also known as the Trade Name) is important for obtaining material handling instructions from the Material Safety Data Sheet (MSDS), required by the U.S. Occupational Safety and Health Administration (OSHA) for each hazardous product. • The Product Name is the key to the MSDS, which provides guidance for emergency responders who may not be familiar with the Proper Shipping Name.
Reference	• Interview with Emergency Response Stakeholder

3.218 Proper Shipping Name

Proper Shipping Name	
Definition	The name used to describe a particular article or substance in all shipping documents and notifications and, where appropriate, on packaging, as shown in the UN Model Regulations Dangerous Goods List.
Alternate Names	Hazardous Material
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Line Item Details, Dangerous Goods List of Line Item Detail, Dangerous Goods List of Line Item Details
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• If there are dangerous goods on board the flight, this element should be populated for emergency response usage. • In the United States, Proper Shipping Name of the material or good is required by CFR 172.202 (the corresponding table is listed in 172.101).
Notes	• This element contains free-form text. • Each article or substance offered for transportation must be declared by its Proper Shipping Name. • IATA specifies a maximum size of 65 characters. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:ProperShippingName
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.219 Publisher Name

Publisher Name	
Definition	The name of the entity acting as the publisher of the information about a flight.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• The publisher could be the same as the Controlling Unit or a third party.
Reference	• IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.220 Q Value

Q Value	
Definition	The amount of energy released in a reaction.
Alternate Names	
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Packaging Detail, Dangerous Goods Package Details
Data Type(s)	Float
Range of Values	[0.0-1.0]
Business Rules	• Limit length to 100 characters to reduce the risk of code insertion. • Field is mandatory, if All Packed In One is set. • The Q-value must be calculated, when shippers pack different dangerous goods in the same outer packaging for air shipment.
Notes	• IATA does not specify a size limitation. • Most instances of 'All packed in one' will require the addition of the Q values to be <= 1. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:RelatedCommercialTradeTransaction /ram:SpecifiedLogisticsPackage /ram:QValueNumeric
Reference	• IATA SDDG Specification v2.1 • IATA Dangerous Goods Regulations, January 2011 • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.221 Radio Failure Remarks

Radio Failure Remarks	
Definition	Pertinent information needed to notify appropriate organizations regarding loss of radio communication capabilities.
Alternate Names	Any Necessary Remarks
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• This data element contains free-form text. • [ICAO Standard ATS Messages] Transmitted in RCF as ICAO Field Type 21f. If the information is not available, value should be NIL or NOT KNOWN. • [SESAR Harmonization] Element is not present in the SESAR 10.02.05 FO. Element has been added to a list for consideration for inclusion in the SESAR model.
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.222 Radioactive Material Category

Radioactive Material Category	
Definition	A category used for radioactive materials in a package, overpack or freight container, based on their maximum radiation level.
Alternate Names	Category
Has Parts	
Is Part Of	Radioactive Materials
Data Type(s)	Enumeration
Range of Values	{I-White, II-Yellow, III-Yellow}
Business Rules	
Notes	• I-White: Surface radiation <0.5 millirem/hr, 1 meter radiation: N/A • II-Yellow: Surface radiation <50 millirem/hr, 1 meter radiation: <1 millirem/hr • III-Yellow: Surface radiation >50 millirem/hr, 1 meter radiation >1 millirem/hr • IATA does not specify a size. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:RadioactiveMaterial /ram:TypeCode
Reference	• IATA SDDG Specification v2.1 • IATA Dangerous Goods Regulations, January 2011 • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.223 Radioactive Materials

Radioactive Materials	
Definition	The XML grouping element for goods that contain radioactive materials.
Alternate Names	
Has Parts	Radioactive Material Category, Transport Index, Fissile Excepted Indicator, Criticality Safety Index, Radionuclide
Is Part Of	Dangerous Goods List of Overpack Detail
Data Type(s)	Container
Range of Values	
Business Rules	
Notes	• The parts of this element should be filled out, if there are radioactive materials on board the flight. • IATA does not specify a size. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:RadioactiveMaterial This complex XML element is a grouping element that contains the XML elements with radioactive material information.
Reference	• IATA SDDG Specification v2.1

3.224 Radionuclide

Radionuclide	
Definition	The XML sub-grouping element for Radioactive Materials.
Alternate Names	
Has Parts	Radionuclide Name, Activity, Low Dispersible Material Indicator, Special Form Indicator, Physical and Chemical Form, Radionuclide ID
Is Part Of	Radioactive Materials
Data Type(s)	Container
Range of Values	
Business Rules	
Notes	• The parts of this element should be filled out, if there are radioactive materials on board the flight. • IATA does not specify a size. • IATA Model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:RadioactiveMaterial /ram:ApplicableRadioactiveIsotope
Reference	• IATA SDDG Specification v2.1

3.225 Radionuclide ID

Radionuclide ID	
Definition	Identification number of each radionuclide or for mixtures of radionuclides.
Alternate Names	
Has Parts	
Is Part Of	Radionuclide
Data Type(s)	Alphanumeric String
Range of Values	"UN" or "NA" followed by [0000-9999]
Business Rules	• UN/ID numbers range from UN0001-UN3600; NA numbers range from NA8000-NA9999. • Limit max size to six characters to limit the vulnerability of code insertion.
Notes	• IATA does not specify a size. • IATA model Namespace = xlms:ram='iata:datamodel:3' XML element name = ram:RadioactiveMaterial /ram:ApplicableRadioactiveIsotope /ram:ID
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.226 Radionuclide Name

Radionuclide Name	
Definition	The name or symbol of each radionuclide or for mixtures of radionuclides, an appropriate general description, or a list of the most restrictive nuclides.
Alternate Names	Radionuclide, Isotope Name
Has Parts	
Is Part Of	Radioactive Materials, Radionuclide
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• Limit size to 100 to limit the vulnerability of code insertion.
Notes	• This element contains free-form text. • IATA does not specify a size. • IATA data model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:RadioactiveMaterial /ram:ApplicableRadioactiveIsotope /ram:Name
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.227 Reason for Non-Standard Coordination

Reason for Non-Standard Coordination	
Definition	In case of non-standard coordination, the reason for non-standard coordination is indicated.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	{Late activation, Lateral deviation, Late revision, Non-standard TFL, Non-standard Equipment, Non-standard SSR code, Transition point}
Business Rules	
Notes	
Reference	• EUROCAE- ED-133 - Flight Object Interoperability Specification • EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010

3.228 Reassigned Beacon Code Unit

Reassigned Beacon Code Unit	
Definition	Identifies the downroute unit that assigned the next beacon code, in the case the beacon code was already in use by another flight at the downroute unit.
Alternate Names	
Has Parts	
Is Part Of	Reassigned SSR Mode and Beacon Code
Data Type(s)	Unit
Range of Values	
Business Rules	

Notes	• Represented using the ICAO four to six character designator defined in ICAO 7910 - Location Indicators. The first four characters identify the unit, and the last two optional characters identify the sub-unit.
	• This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ○ Unit Identifier: Enumeration
	  ○ Sub-Unit Identifier: Alphanumeric String

Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • ICAO 7910, Location Indicators, latest published edition.

3.229 Reassigned SSR Mode and Beacon Code

Reassigned SSR Mode and Beacon Code	
Definition	The Secondary Surveillance Radar (SSR) mode and beacon code assigned to the flight in the downroute facility, if the flight's current beacon code is already in use by another flight in that facility. The next beacon code differs from the flight's current beacon code.
Alternate Names	
Has Parts	Reassigned Beacon Code Unit
Is Part Of	
Data Type(s)	Beacon Code & Mode, Container
Range of Values	
Business Rules	
Notes	
Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009

3.230 Receiving Unit Frequency

Receiving Unit Frequency	
Definition	The frequency of the receiving unit.
Alternate Names	
Has Parts	
Is Part Of	CPDLC Connection Status
Data Type(s)	Frequency
Range of Values	
Business Rules	• Transmitted by the receiving unit, during Coordination, to advise the transferring ATSU of any changes to a previously notified or default frequency.
Notes	• If the CPDLC connection has been established with the aircraft, transmitted by the receiving ATSU to advise of any changes to a previously notified or default frequency. Does not contain units, spaces or leading zeros. • Format is up to seven characters in length, containing integers or a decimal value in the allowed range. • For the HF frequency, the range is 2850 to 28000, and the units are kHz. • For the VHF frequency, the range is 117.975 to 137.000, and the units are MHz. • For the UHF frequency, the range is 225.000 to 399.975, and the units are MHz.
Reference	• Asia/Pacific Regional Interface Control Document (ICD) For ATS Interfacility Data Communications (AIDC), version 3, September 2007 • The North Atlantic Common Coordination Interface Control Document, Version 1.2.8 December 2010

3.231 Region Name

Region Name	
Definition	The name of the region within a country specific to this address.
Alternate Names	State
Has Parts	
Is Part Of	Postal Structured Address
Data Type(s)	Location
Range of Values	
Business Rules	• The code related to the name can be identified in the UNECE Recommendation Number 16 - LOCODE - Code for Trade and Transport Locations. • IATA specifies a maximum size of nine characters.
Notes	• This field is used to hold the state in U.S. addresses. • IATA data model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:PostalStructuredAddress /ram:RegionName
Reference	• IATA SDDG Specification v2.1

3.232 Release Conditions

Release Conditions	
Definition	When the flight is released from the agreed transfer conditions, contains the Release conditions specified by the transferring ATSUs. The Release conditions indicate the type of manoeuvres the flight is released to perform.
Alternate Names	
Has Parts	
Is Part Of	Coordination Status
Data Type(s)	Enumeration
Range of Values	{C, D, T, F}
Business Rules	

Notes	• The receiving ATSU may propose the flight be released from the Coordination conditions. If accepted by the transferring ATSU, the transferring ATSU may specify Release Conditions. The flight may be released from the coordination conditions in response to a request from the accepting ATSU, or unsolicited after the flight has been initially coordinated. The flight is considered to be initially coordinated, once the coordination conditions have been accepted by the accepting ATSU.
	• Contains one of the following:
	  ○ C, if the flight is released for climb;
	  ○ D, if the flight is released for descent;
	  ○ T, if the flight is released for turns;
	  ○ F, if the flight is fully released for all actions.

Reference	• EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010

3.233 Remaining Communication Capabilities

Remaining Communication Capabilities	
Definition	The remaining communication capability of the aircraft following radio failure.
Alternate Names	Remaining COM Capability
Has Parts	
Is Part Of	
Data Type(s)	Complex
Range of Values	If enumeration, one or more of the following: {N, S, E1, E2, E3, H, M1, M2, M3, P1, P2, P3, P4, P5, P6, P7, P8, P9, U, V, Y}
Business Rules	
Notes	• This data element can contain either free-form alphanumeric text or a combination of one or more of the following enumerated ICAO codes for communication capabilities: ○ N - No serviceable communication equipment for the route flown ○ S - Standard equipment for the route flown (VHF RTF) ○ E1 - FMC WPR ACAR ○ E2 - D-FIS ACARS ○ E3 - PDC ACARS ○ H - HF RTF ○ M1 - ATC RTF SATCOM (INMARSAT) ○ M2 - ATC RTF (MTSAT) ○ M3 - ATC RTF (Iridium) ○ P1-P9 - reserved for RCP ○ U - UHF RTF ○ V - VHF RTF ○ Y - ATS VHF w/ 8.33 kHz channel spacing capability • [ICAO Standard ATS Messages] Transmitted in RCF as ICAO Field Type 21e. When the information is not available, the value should be NIL or NOT KNOWN. • [SESAR Harmonization] Element is not present in the SESAR 10.02.05 FO. Element has been added to a list for consideration for inclusion in the SESAR model.
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444)

	• Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.234 Reportable Quantity

Reportable Quantity	
Definition	The minimum amount of hazardous substance released into the environment before the Environmental Protection Agency (EPA) requires notification of the release to the National Response Centre.
Alternate Names	RQ
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Line Item Details, Dangerous Goods List of Line Item Detail, Dangerous Goods List of Line Item Details
Data Type(s)	Integer
Range of Values	
Business Rules	• This element is required for flights to and from the United States.
Notes	• IATA does not specify a size. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:ReportableQuantity
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • 49 CFR 172.101, Appendix A, Table 1 and Table 2, Hazardous Materials Table • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.235 Reported Altitude

Reported Altitude	
Definition	The latest valid Mode C altitude received from an aircraft, or the latest reported altitude received from a pilot.
Alternate Names	
Has Parts	
Is Part Of	Current Position
Data Type(s)	Altitude
Range of Values	
Business Rules	
Notes	
Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • North American (NAM) Common Coordination Interface Control Document (ICD) VOLUME 1: Area Control Centre (ACC) to ACC, 1/20/12 • IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 • FAA and Japan Civil Aviation Bureau 'Interface Control Document for FAA-JCAB Data Exchange, Ver. 1.0, February 16, 2011 • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.236 Requested Direct Route

Requested Direct Route	
Definition	The points between which the accepting controller is requesting a direct routing from the transferring controller.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Complex
Range of Values	

Business Rules	• The transferring unit may:
	  ○ Grant the request: In this case the clearance is populated in the Cleared Direct To element. The clearance may also result in an updated Boundary Crossing Point and Time.
	  ○ Reject the request: In this case, the Coordination conditions remain unchanged, and the clearance is not populated in the Cleared Direct To element.

Notes	• The route contains two points, each of which can be defined as either a known reference point or a range and bearing from a reference point.
	  ○ This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ▪ Location from which a direct routing is requested: Location
	  ▪ Location to which a direct routing is requested: Location
	• Adheres to ICAO field type 15 format, excluding the initial speed/level group.

Reference	• EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010

3.237 Requested Route

Requested Route	
Definition	The route string requested by the accepting controller from the transferring controller.
Alternate Names	
Has Parts	Route
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	

Business Rules	• The transferring unit may:
	  ○ Grant the request: In this case, the route is updated with the requested route.
	  ○ The new route is likely to result in an updated Boundary Crossing Point and Time.
	  ○ Reject the request: In this case, the route and Coordination conditions remain unchanged.

Notes	• Adheres to the format of the ICAO 4444 Route field.
Reference	• EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010

3.238 Route

Route	
Definition	The ICAO route string as depicted from the flight plan.
Alternate Names	
Has Parts	
Is Part Of	Requested Route
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• [NAS] In the NAS FPL, field 15 captures the route as well as the cruising speed and level. The optional [SID] and [STAR] are expressed by the Airway data element. • [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 15c. • [NAS CMS] This data element is extended in the NAS extension. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::ICAORoute
Reference	• FAA ICAO Flight Planning Interface Reference Guide version 1.3, May 2008 • Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.239 Route - Revised Destination

Route - Revised Destination	
Definition	The route from the current location to the revised destination aerodrome.
Alternate Names	Revised Route
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18, preceded by 'RIF/'. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::OtherInformation.reclearance_in_flight. The revised route is subject to re-clearance in flight.
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.240 Route Impact List

Route Impact List	
Definition	Current traffic flow management prediction of en route Air Traffic Control units (centres), sectors and airspace elements along the trajectory of a flight.
Alternate Names	
Has Parts	Predicted Airways, Predicted Units, Predicted Sectors
Is Part Of	
Data Type(s)	Container
Range of Values	
Business Rules	
Notes	
Reference	• CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.241 Route-Change Air Traffic Type

Route-Change Air Traffic Type	
Definition	The type of flight value associated with the point. It is associated with the first point on the route and any subsequent point where the type of flight value changes.
Alternate Names	Air Traffic Type Change
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	{OAT, GAT}
Business Rules	
Notes	• This element can be associated with a point in a route or a point in an expanded route.
Reference	• IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.242 Route-Change Cruise Climb

Route-Change Cruise Climb	
Definition	The parameters of a cruise climb executed at the associated significant point.
Alternate Names	Cruise Climb
Has Parts	
Is Part Of	
Data Type(s)	Complex
Range of Values	
Business Rules	

Notes	• This element can be associated with a point in a route or a point in an expanded route.
	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 15c6.
	• It contains the following parameters:
	  ○ the speed to be maintained during cruise climb;
	  ○ either the minimum and maximum levels defining the layer to be occupied during cruise climb, or the level above which cruise climb is planned.
	• This data element is always associated with a Significant Point data element.
	• This complex data type is comprised of:
	  ○ Speed
	  ○ Altitude

Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.243 Route-Change Flight Rules

Route-Change Flight Rules	
Definition	The planned flight rules the aircraft will change to upon reaching the associated Significant Point along its Route.
Alternate Names	Indicator
Has Parts	
Is Part Of	
Data Type(s)	Flight Rules
Range of Values	
Business Rules	• This data element is always associated with a 'Significant Point' data element.

Notes	• This element can be associated with a point in a route or a point in an expanded route.
	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 15c5.
	• The significance of the values is the following
	  ○ 'VFR' if a change to VFR is to be made at the associated Change Point
	  ○ 'IFR' if a change to IFR is to be made at the associated Change Point

Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.244 Route-Change Speed and Altitude

Route-Change Speed and Altitude	
Definition	The planned speed and altitude the aircraft will change to either prior to, or after reaching, the associated Significant Point along its Route.
Alternate Names	Change of Speed, Change of Level
Has Parts	
Is Part Of	
Data Type(s)	Complex
Range of Values	Condition {AT_OR_BEFORE_POINT, AT_OR_AFTER_POINT}
Business Rules	• This data element is always associated with a Significant Point data element.

Notes	• This element can be associated with a point in a route or a point in an expanded route.
	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 15c4.
	• This complex data type is comprised of:
	  ○ Speed
	  ○ Altitude
	  ○ Condition: Enumeration
	• The Condition is relative to the associated point:
	  ○ AT_OR_BEFORE_POINT - The change is required to be completed by the point.
	  ○ AT_OR_AFTER_POINT - The change is required subsequent to the point.
	• A combination of these two conventions will describe a clearance with a defined starting and completion point.

Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007 • Asia/Pacific Regional Interface Control Document (ICD) For ATS Interfacility Data Communications (AIDC), version 3, September 2007 • The North Atlantic Common Coordination Interface Control Document, Version 1.2.8 December 2010

3.245 Route-Change Speed and Altitude at Time

Route-Change Speed and Altitude at Time	
Definition	The planned speed and altitude the aircraft will change to relative to the associated time.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Complex
Range of Values	Condition {A, B, L}
Business Rules	• This data element is always associated with a Significant Point data element.

Notes	• This element can be associated with a point in a route or a point in an expanded route.
	• There can be multiple speed/level/time restrictions required between route points.
	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 15c4.
	• This complex data type is comprised of:
	  ○ Speed
	  ○ Altitude
	  ○ Time
	  ○ Condition: Enumeration
	• The Condition is relative to the associated time:
	  ○ A - UNTIL - Maintain speed/alt until the specified time.
	  ○ B - AT or BEFORE - The change is required at or before the specified time.
	  ○ L - AT or LATER - The change is required at or later than the specified time.

Reference	• Asia/Pacific Regional Interface Control Document (ICD) For ATS Interfacility Data Communications (AIDC), version 3, September 2007 • The North Atlantic Common Coordination Interface Control Document, Version 1.2.8 December 2010

3.246 Route-Fix Time - Required

Route-Fix Time - Required	
Definition	Contains the time at fix and the time at fix constraint condition, which together describe when the aircraft should arrive at a particular fix.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Complex
Range of Values	Fix Constraint Condition: {A, B, L}
Business Rules	

Notes	• This element can be associated with a point in a route or a point in an expanded route.
	• Values for the time at fix constraint condition come from a Controlled List containing a one letter indicator: A, B or L.
	  ○ AT: 'A', e.g. 1230A;
	  ○ AT OR BEFORE: 'B', e.g., 1230B; or
	  ○ AT OR LATER: 'L', e.g., 1230L.
	• Used in the route field to constrain when the aircraft should arrive at a fix. For example, 49N050W/1230L signifies the aircraft should arrive at 49 N 50 W at or later than 1230 pm.
	• This data element is composed of the following pieces of information. The data type is listed after the colon.
	  ○ Time at Fix: Date Time
	  ○ Fix Constraint Condition: Enumeration

Reference	• 1) Asia/Pacific Regional Interface Control Document (ICD) For ATS Interfacility Data Communications (AIDC), version 3, September 2007 • 2) The North Atlantic Common Coordination Interface Control Document, Version 1.2.8 December 2010

3.247 Runway Arrival Time - Actual

Runway Arrival Time - Actual	
Definition	The actual time at which the aircraft lands on a runway.
Alternate Names	Time of Arrival, Actual Time of Arrival, Actual Landing Time (ALDT), Actual Runway Time of Arrival (ARTA), Arrival Time - Actual
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	• [ICAO Standard ATS Messages] Transmitted in ARR as ICAO Field Type 17b. • [SESAR Harmonization] Element is not present in the SESAR 10.02.05 FO. Element has been added to a list for consideration for inclusion in the SESAR model. • For A-CDM, this data element is equivalent to ATC ATA-Actual Time of Arrival = landing, ACARS = ON. • In the United States, this data element is from surveillance and/or provided by airspace users via CDM messages,
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007 • A-CDM Implementation Manual • CSC, Traffic Flow Management System-to-Airline Operation Centre Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012 • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008

3.248 Runway Arrival Time - Controlled

Runway Arrival Time - Controlled	
Definition	The time at which a flight is required to touch down at the runway, as a result of a tactical slot allocation or a Traffic Management Initiative.
Alternate Names	Controlled Time of Arrival, CTA, Calculated Landing Time, CLDT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	• In the United States, the Controlled Time of Arrival (CTA) is present for a flight, when a flight is subject to a TMI. If a flight is not subject to a TMI, this field is null.
Notes	• In U.S. CDM, for a GDP, the CTA represents the time the flight should arrive at the controlled airport.
Reference	• CSC, Traffic Flow Management System-to-Airline Operation Centre Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012 • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011

3.249 Runway Arrival Time - Estimated

Runway Arrival Time - Estimated	
Definition	The most reliable estimated time when an aircraft will touch down on the runway.
Alternate Names	Estimated Time of Arrival, ETA, Estimated Landing Time, ELDT, Arrival Time - Estimated
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	• This data element is set, considering all information available at the regional level.
Notes	• [NAS CMS] This data element corresponds to Field 28a. It can also be appended to the route field after the last fix. • [SESAR Harmonization] - Element not present in SESAR 10.02.05 FO. Element has been added to a list for consideration for inclusion in SESAR model.
Reference	• National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2008 • A-CDM Implementation Manual

3.250 Runway Arrival Time - Target

Runway Arrival Time - Target	
Definition	The time when the aircraft is planned to touch down at the runway.
Alternate Names	Target Landing Time, TLDT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	• It is not a constraint but a progressively refined planning time used to coordinate between arrival and departure management processes. Each target landing time (TLDT) on one runway is separated from other TLDT or target take off time (TTOT) to represent vortex and/or standard instrument departure (SID) separation between aircraft. • This data element takes into account the runway sequence and constraints.
Reference	• A-CDM Implementation Manual

3.251 Runway Departure Time - Actual

Runway Departure Time - Actual	
Definition	The actual time at which a flight takes off from the runway.
Alternate Names	Actual Take-Off Time (ATOT), Actual Runway Time of Departure (ARTD), Actual Runway Departure Time, OFF Time
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	• The field is null until the flight takes off.
Notes	• [ICAO Standard ATS Messages] This data element is a combination of ICAO Field Type 13b (time) and 18 DOF/ (date). The time is transmitted in ALR, DEP, and SPL messages. The date is transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18, preceded by 'DOF/'. • [NAS CMS] This data element corresponds to Field 07d when 07d is a D-time. • [SESAR Harmonization] - Element present in SESAR 10.02.05 FO model as Departure::TakeOff.takeOffTime. Note that this particular SESAR element has several prefixes which alter the meaning of the element. • For A-CDM, this data element is equivalent to ATC ATD–Actual Time of Departure, ACARS = OFF. • In the United States, this data element is from surveillance and/or provided by airspace users via CDM messages.
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007 • CSC, Traffic Flow Management System-to-Airline Operation Centre Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012 • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • A-CDM Implementation Manual

3.252 Runway Departure Time - Controlled

Runway Departure Time - Controlled	
Definition	The time at which a flight is required to take off from the runway as a result of a tactical slot allocation or a Traffic Management Initiative.
Alternate Names	Controlled Time of Departure, CTD, Expect Departure Clearance Time, EDCT, Calculated Take Off Time, CTOT, Approved Take Off Time
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	• In the United States, the Controlled Time of Departure (CTD) is present for a flight when a flight is subject to a TMI. If a flight is not controlled, the CTD is null.
Notes	• In U.S. CDM, this time represents the Expect Departure Clearance Time (EDCT) in a Ground Delay Program (GDP) or Airspace Flow Program (AFP). A flight is generally considered to be compliant with its EDCT if it takes off within plus or minus five minutes of the EDCT. • In On-Line Data Interchange (OLDI), the approved take off time is the time at which the flight should take off at the aerodrome as approved by the next ATC unit. In the OLDI CRP message, this information is included in the departure clearance data from an ACC to an aerodrome/approach control unit.
Reference	• CSC, Traffic Flow Management System-to-Airline Operation Centre Network (TFMS-to-AOCNET) Interface Control Document (ICD) for the Traffic Flow Management-Modernization (TFM-M) Program, Final, Release 9, November 19, 2012 • CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011 • EUROCONTROL Specification for On-Line Data Interchange (OLDI) Edition 4.2, EUROCONTROL - SPEC-0106, December 16, 2010 • A-CDM Implementation Manual

3.253 Runway Departure Time - Estimated

Runway Departure Time - Estimated	
Definition	The most reliable estimated take off time.
Alternate Names	Estimated Take Off Time, ETOT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	• This data element is set, considering all information available at regional level. • For A-CDM, it takes into account the EOBT plus EXOT.
Notes	
Reference	• A-CDM Implementation Manual

3.254 Runway Departure Time - Target

Runway Departure Time - Target	
Definition	The time when the aircraft is planned to take off from the runway.
Alternate Names	Target Take Off Time, TTOT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	• Each target take off time (TTOT) on one runway is separated from other TTOT or target landing time (TLDT) to represent vortex and/or standard instrument departure (SID) separation between aircraft. • This data element takes into account the runway sequence, off-block ready, start-up approval and estimated taxi-out times.
Reference	• A-CDM Implementation Manual

3.255 Selective Calling Code

Selective Calling Code	
Definition	A code that consists of two 2-letter pairs and acts as a paging system for an ATS unit to establish voice communications with the pilot of an aircraft.
Alternate Names	SELCAL Code
Has Parts	
Is Part Of	
Data Type(s)	Alpha String
Range of Values	[A-S] excluding {I, N, O}
Business Rules	SELCAL codes use letters [A-S] excluding I, N, and O. Duplicate letters, in the same pair, are not allowed. The succeeding letter, in the same pair, must be higher than the preceding one. Aviation Spectrum Resources (ASRI) is the registrar and issuer of SELCAL codes worldwide. Used during HF communications, when aircraft are overflying large unpopulated areas such as oceans and deserts.
Notes	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18, preceded by 'SEL/'. • [SESAR harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::OtherInformation.selcal_code. This code is permanently assigned to individual aircraft. Selective calling is mostly used by Oceanic Enroute Facilities.
Reference	• Aviation Spectrum Resources, Inc. Selective Calling (SELCAL) Users Guide • Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.256 Shipment Authorizations

Shipment Authorizations	
Definition	Additional information related to an approval, permission, or other specific detail regarding the shipment of dangerous goods.
Alternate Names	Authorizations
Has Parts	
Is Part Of	Dangerous Goods List of Line Item Detail
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• Should be used for Special Permit numbers (required by 49 CFR 172.203a) and Special Provision numbers in the United States. • Limit length to 100 characters to reduce the risk of code insertion.
Notes	• This data element contains free-form text. • State variation codes, or special provision codes, can be entered into this field. • IATA does not specify a size limitation. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML Element = ram:ApplicableTransportDangerousGoods /ram:AuthorizationInformation
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • 49 CFR 172.203a • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.257 Shipment Type

Shipment Type	
Definition	An indicator used for dangerous cargo of whether the package is radioactive or not.
Alternate Names	Shipment DG Type
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Header
Data Type(s)	Enumeration
Range of Values	{Radioactive, Non-Radioactive}
Business Rules	
Notes	• IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:HazardTypeCode
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.258 Shipper Address

Shipper Address	
Definition	The shipper's mailing address.
Alternate Names	
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Header, Shipper Name and Address
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• The Shipper Address is mandatory when used in the IATA SDDG message.
Notes	• This data element contains free-form text. • The address consists of PO Box, Street, City, Region or State, ZIP or Postal Code, Country Code, and Country Name. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML Element = rsm:ShipppersDeclarationForDangerousGoods /rsm:MasterConsignment /ram:IncludedHouseConsignment /ram:ConsignorParty /ram:PostalStructuredAddress
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.259 Shipper Emergency Phone Number

Shipper Emergency Phone Number	
Definition	Phone number of the shipper or someone who is not on board the aircraft and who can be reached in an emergency involving the dangerous good.
Alternate Names	Phone Number
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Header
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• IATA specifies a maximum size of 25 characters.
Notes	• Includes country code (if necessary), area code, and phone number. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:EmergencyTradeContact /ram:DirectTelephoneCommunication /ram:CompleteNumber
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.260 Shipper Name

Shipper Name	
Definition	The Shipper's name, legal identity, and/or organization.
Alternate Names	Shipping Company, Shipper
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Header, Shipper Name and Address
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• IATA specifies a maximum size of 35 characters.
Notes	• This data element contains free-form text. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:IncludedHouseConsignment /ram:ConsignorTradeParty /ram:Name
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.261 Shipper Name and Address

Shipper Name and Address	
Definition	The XML Grouping Element that unites the Shipper (Consignor) Name with the Postal Structure Address (detailed breakout of address components).
Alternate Names	
Has Parts	Postal Structured Address, Shipper Name
Is Part Of	Shipper's Declaration For Dangerous Goods Header
Data Type(s)	Container
Range of Values	
Business Rules	• An IATA SDDG must have this information.
Notes	• IATA data model xmlns:ram='iata:datamodel:3' XML Element = 'ram:ConsignorParty'
Reference	• IATA SDDG Specification v2.1

3.262 Shipper's Declaration For Dangerous Goods Header

Shipper's Declaration For Dangerous Goods Header	
Definition	The part of the IATA Shipper's Declaration For Dangerous Goods that contains the basic header information on who is sending and receiving this shipment.
Alternate Names	
Has Parts	Destination Country, Declaration Text: Compliance, Aircraft Dangerous Goods Limitation, Air Waybill Number, Departure Country, Shipper Emergency Phone Number, Shipment Type, Consignee Name and Address, Shipper Name and Address, Declaration Text: Shipper
Is Part Of	IATA Shipper's Declaration For Dangerous Goods
Data Type(s)	Container
Range of Values	
Business Rules	• If the parent Grouping element (IATA Shipper's Declaration For Dangerous Goods) is present, this Grouping Element is required.
Notes	• IATA model Namespace = xmlns:rsm='iata:shippersdeclarationfordangerousgoods:1' XML Element = rsm:MasterConsignment
Reference	• IATA SDDG Specification v2.1

3.263 Shipper's Declaration For Dangerous Goods Line Item Details

Shipper's Declaration For Dangerous Goods Line Item Details	
Definition	The part of the IATA Shipper's Declaration For Dangerous Goods contains the line items details for this shipment.
Alternate Names	
Has Parts	Dangerous Goods List of Line Item Detail, Dangerous Goods List of Overpack Detail
Is Part Of	IATA Shipper's Declaration For Dangerous Goods
Data Type(s)	Container
Range of Values	
Business Rules	• If the parent Grouping element (IATA Shipper's Declaration For Dangerous Goods) is present, this Grouping Element is required.
Notes	• IATA model Namespace = xmlns:rsm='iata:shippersdeclarationfordangerousgoods:1' XML Element = rsm:MasterConsignment
Reference	• IATA SDDG Specification v2.1

3.264 Shipper's Declaration For Dangerous Goods Packaging Detail

Shipper's Declaration For Dangerous Goods Packaging Detail	
Definition	The part of the IATA Shipper's Declaration For Dangerous Goods that contains the packaging details for this shipment.
Alternate Names	
Has Parts	Dangerous Goods List of Package Detail
Is Part Of	IATA Shipper's Declaration For Dangerous Goods
Data Type(s)	Container
Range of Values	
Business Rules	• If the parent Grouping element (IATA Shipper's Declaration For Dangerous Goods) is present, this Grouping Element is required if multiple packages are combined.
Notes	• IATA model Namespace = xmlns:rsm='iata:shippersdeclarationfordangerousgoods:1' XML Element = rsm:MasterConsignment /ram:IncludedHouseConsignment
Reference	• IATA SDDG Specification v2.1

3.265 Shipper's Declaration For Dangerous Goods Summary

Shipper's Declaration For Dangerous Goods Summary	
Definition	The section of the IATA Shipper's Declaration For Dangerous Goods required at the end portion of the SDDG for a shipment.
Alternate Names	
Has Parts	Declaration Text: Consignor
Is Part Of	IATA Shipper's Declaration For Dangerous Goods
Data Type(s)	Container
Range of Values	
Business Rules	• If the parent Grouping element (IATA Shipper's Declaration For Dangerous Goods) is present, this Grouping Element is required. This is the final compliance declaration of the document.
Notes	• IATA model Namespace = xmlns:rsm='iata:shippersdeclarationfordangerousgoods:1' XML Element = rsm:MasterConsignment /ram:IncludedHouseConsignment
Reference	• IATA SDDG Specification v2.1

3.266 Significant Point

Significant Point	
Definition	A single point along the flight route.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Location
Range of Values	If expressed as ICAO location identifier, values comply with ICAO Doc. 7910 - Location Indicators.
Business Rules	• This data element is associated with 'Change Speed and Altitude', 'Change Flight Rules', or 'Change Cruise Climb', only if any of these values are expected to change at the location defined by the significant point.
Notes	• A Significant Point may or may not be associated with a change in the flight's speed or altitude or flight rules. • [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 15c3.
Reference	• Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.267 Special Form Indicator

Special Form Indicator	
Definition	A notation that the material is 'special form' and cannot produce radioactive contamination.
Alternate Names	
Has Parts	
Is Part Of	Radioactive Materials, Radionuclide
Data Type(s)	Boolean
Range of Values	
Business Rules	
Notes	• Special Form is used to describe radioactive material which is in a sealed integral form and so cannot, for all practical purposes, produce radioactive contamination. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:RadioactiveMaterial /ram:ApplicableRadioactiveIsotope /ram:SpecialFormNote
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.268 Special Handling Reason

Special Handling Reason	
Definition	A property of the flight that requires ATS units to give it special consideration.
Alternate Names	Reason for Special Handling
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	{ALTRV, ATFMX, FFR, FLTCK, HAZMAT, HEAD, HOSP, HUM, MARSA, MEDEVAC, NONRVSM, SAR, STATE}
Business Rules	

Notes	• The meaning of the values is as follows:
	  ○ ALTRV - Operated IAW altitude reservation
	  ○ ATFMX - Approved for exemption from ATFM measures by ATS authority
	  ○ FFR - Fire fighting
	  ○ FLTCK - Flight check for calibration of NAVAIDs
	  ○ HAZMAT - Carrying hazardous material
	  ○ HEAD - Head of State status
	  ○ HOSP - Medical flight declared by medical authorities
	  ○ HUM - On humanitarian mission
	  ○ MARSA - Military entity assumes responsibility for separation of military aircraft
	  ○ MEDEVAC - Life critical medical emergency evacuation
	  ○ NONRVSM - Non-RVSM capable flight intending to operate in RVSM airspace
	  ○ SAR - Engaged in search and rescue mission
	  ○ STATE - Engaged in military, customs or police services
	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18, preceded by 'STS/'.
	• [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::OtherInformation.reason_for_special_handling

Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM

	ICAO 4444), 2007

3.269 Speed - Actual

Speed - Actual	
Definition	The actual speed of the aircraft, collected via various methods.
Alternate Names	
Has Parts	Speed - Calculated, Speed - Surveillance, Speed - Pilot Reported
Is Part Of	
Data Type(s)	Container
Range of Values	
Business Rules	
Notes	• For applications that require the actual speed of the aircraft, there are three choices, the most accurate of which is the "Speed-Surveillance". If this information is not available or the timestamp associated with it is old, then one of the other two speeds can be used - "Speed-Calculated" or "Speed-Pilot Reported".
Reference	

3.270 Speed - Calculated

Speed - Calculated	
Definition	The estimated horizontal speed of the aircraft relative to a fixed point on the ground.
Alternate Names	
Has Parts	
Is Part Of	Speed - Actual
Data Type(s)	Speed
Range of Values	
Business Rules	
Notes	• This is for flights not being tracked by surveillance. • The calculated speed is computed based on the location of the reporting points and the specified times at those points. • The type of measurement is "Ground Speed". • This element is influenced by the current wind speed and direction.
Reference	• CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011 • National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • North American (NAM) Common Coordination Interface Control Document (ICD) VOLUME 1: Area Control Centre (ACC) to ACC, 1/20/12 IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 FAA and Japan Civil Aviation Bureau 'Interface Control Document for FAA-JCAB Data Exchange, Ver. 1.0, February 16, 2011

3.271 Speed - Pilot Reported

Speed - Pilot Reported	
Definition	The speed of the aircraft relative to the air mass in which it is flying. This is the speed reported by the pilot.
Alternate Names	
Has Parts	
Is Part Of	Speed - Actual
Data Type(s)	Speed
Range of Values	
Business Rules	
Notes	• The true air speed (TAS) is calculated from the calibrated air speed (CAS) using Outside Air Temperature (OAT) and Pressure-altitude. The CAS is derived from the Indicated Air Speed (IAS) using aircraft-specific correction tables.
Reference	• FAA and Japan Civil Aviation Bureau 'Interface Control Document for FAA-JCAB Data Exchange, Ver. 1.0, February 16, 2011

3.272 Speed - Surveillance

Speed - Surveillance	
Definition	The measured horizontal speed of the aircraft relative to a fixed point on the ground, for flights being tracked by surveillance or satellite.
Alternate Names	
Has Parts	
Is Part Of	Speed - Actual
Data Type(s)	Speed
Range of Values	
Business Rules	
Notes	• This is the speed reported by ground based radar tracking or the Global Positioning System (GPS), which is only available when there is sufficient surveillance or GPS coverage of the flight. • The type of measurement is "Ground Speed". • This element is influenced by the current wind speed and direction.
Reference	• CSC 'Traffic Flow Management Modernization FDB to FTM Data Message Definitions', Feb 12, 2008 • CSC 'Aircraft Situation Display to Industry: Functional Description and Interface Control Document for the XML Version', Ver. 1.8, April 15, 2011 • National Airspace System (NAS)-IR-82422412-01, En Route Automation Modernization (ERAM)/Air Traffic Management (ATM) Intermediate Point of Presence (IPOP) Interface Control Document, Rev A, September 30, 2009 • North American (NAM) Common Coordination Interface Control Document (ICD) VOLUME 1: Area Control Centre (ACC) to ACC, 1/20/12 IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 • FAA and Japan Civil Aviation Bureau 'Interface Control Document for FAA-JCAB Data Exchange, Ver. 1.0, February 16, 2011

3.273 Standard Capabilities Indicator

Standard Capabilities Indicator	
Definition	This element indicates the aircraft carries the set of capabilities considered "standard" by the appropriate authority.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Boolean
Range of Values	
Business Rules	
Notes	• [ICAO] One of the values of Item 10a is the "S" for standard. • Item 10a contains "S" if standard COM/NAV/approach aid equipment for the route to be flown is carried and serviceable. • If the letter S is used, standard equipment is considered to be VHF RTF, VOR and ILS, unless another combination is prescribed by the appropriate ATS authority.
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444)

3.274 Standard Instrument Arrival Designator

Standard Instrument Arrival Designator	
Definition	The textual designator of the Standard Instrument Arrival (STAR).
Alternate Names	STAR, Standard Terminal Arrival Route
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• The name of a published route that contains fix and leg elements that need to connect with the end of the en route route elements and connect between that and the assigned landing runway at the airport. • It would be expected the route elements of the identified STAR would be added to the en route elements to complete the aircrafts overall expected routing to the landing runway.
Notes	• A STAR is a designated instrument flight rule (IFR) arrival route linking a significant point, normally on an ATS route, with a point from which a published instrument approach procedure can be commenced. • The elements of this part of the route are not expected to be filed as part of the flight plan submission, but may be assigned at a later time and used to complete the route information between the en route elements and the airport runway. • This element is identified & modelled in AIXM. • For example, - FUL3A - a Standard Arrival beginning at designated point FUL.
Reference	• AIXM • A-CDM Implementation Manual • ICAO

3.275 Standard Instrument Departure Designator

Standard Instrument Departure Designator	
Definition	This is the name of a published procedure extending from the departure runway to the start of the en route part of the aircraft's route.
Alternate Names	SID
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• The elements of this part of the route are not expected to be filed as part of the flight plan submission, but may be assigned at a later time and are used to complete the airport departure route information between the airport runway and the en route part of the route. • It is believed this item is included/modelled in AIXM. • It represents the expected/allocated departure route to be followed by the aircraft immediately following take-off from the departure airport. • The name of a published route that contains fix and leg elements that connect the assigned take-off runway to the aircraft's starting point on the en route part of its route. It would be expected these SID route elements would be added to the start of the en route elements (and any later STAR additions) to complete the overall expected route of the aircraft.
Reference	• A-CDM Implementation Manual

3.276 Start Up Approval Time - Actual

Start Up Approval Time - Actual	
Definition	The time when the aircraft receives the start up approval.
Alternate Names	Actual Start Up Approval Time, ASAT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	
Reference	• A-CDM Implementation Manual

3.277 Start Up Approval Time - Target

Start Up Approval Time - Target	
Definition	The time when the aircraft is expected to receive start up/pushback approval.
Alternate Names	Target Start Up Approval Time, TSAT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	• The actual start up approval (ASAT) can be given in advance of target start up approval time (TSAT). • This data element takes into account the runway sequence and constraints and the off-block ready and runway controlled times.
Reference	• A-CDM Implementation Manual

3.278 Start Up Request Time - Actual

Start Up Request Time - Actual	
Definition	The time when the aircraft requests start up clearance.
Alternate Names	Actual Start Up Request Time, ASRT
Has Parts	
Is Part Of	
Data Type(s)	Date Time
Range of Values	
Business Rules	
Notes	
Reference	• A-CDM Implementation Manual

3.279 Street

Street	
Definition	The building number and Street Name portion of the Address.
Alternate Names	Postal Structured Address
Has Parts	
Is Part Of	Postal Structured Address
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• IATA specifies a maximum size of 35 characters.
Notes	• This element contains free-form text. • IATA data model Namespace = xmlns:ram='iata:datamodel:3' and XML element name = ram:PostalStructuredAddress /ram:Street
Reference	• IATA SDDG Specification v2.1

3.280 Subsidiary Hazard Class and Division

Subsidiary Hazard Class and Division	
Definition	An identifier of any subsidiary hazard class(es)/division(s) in addition to the primary hazard class and division.
Alternate Names	Subsidiary Hazard Class / Division
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Line Item Details, Dangerous Goods List of Line Item Detail, Dangerous Goods List of Line Item Details
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• Limit max size to 100 characters to limit the vulnerability of code insertion. • There may be 0, 1, or 2 subsidiary risk classes or divisions. If there is more than one, each should be separated by a comma. The subsidiary risk must be shown in parentheses.
Notes	• IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:AdditionalHazardClassificationID
Reference	• IATA SDDG Specification v2.1, 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.281 Supplementary Shipping Information

Supplementary Shipping Information	
Definition	Additional information that may be added to the proper shipping name to more fully describe the goods or to identify a particular condition.
Alternate Names	Supplementary Information
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Line Item Details, Dangerous Goods List of Line Item Detail, Dangerous Goods List of Line Item Details
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• Limit max size to 100 characters to limit the vulnerability of code insertion.
Notes	• This element contains free form text. • IATA does not specify a size. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:SupplementaryInformation
Reference	• IATA SDDG Specification v2.1

3.282 Surveillance Capabilities

Surveillance Capabilities	
Definition	The serviceable Secondary Surveillance Radar (SSR) and/or Automatic Dependent Surveillance (ADS) equipment available on the aircraft at the time of flight that may be used to identify and/or locate the aircraft.
Alternate Names	Surveillance Equipment
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	{A, B1, B2, C, D1, G1, E, H, I, L, P, S, U1, U2, V1, V2, X}
Business Rules	• Either one or more of the descriptors 'I', 'P', 'X', 'A', 'C' (of which 'I', 'P' and 'X' are mutually exclusive, i.e. only one may be present) or one or more of the descriptors 'A', 'C', 'E', 'H', 'L', or 'S'. • Optionally one or more of the descriptors 'B1', 'B2', 'D1', 'G1', 'U1', 'U2', 'V1', 'V2' without repetition.
Notes	• This data element contains one or a combination of the following ICAO codes for surveillance capabilities: ○ A - Transponder-Mode A (4 digits-4,096 codes) ○ B1 - ADS-B with dedicated 1090 MHz ADS-B out capability ○ B2 - ADS-B with dedicated 1090 MHz ADS-B out and in capability ○ C - Transponder-Mode A (4 digits-4,096 codes) and Mode C ○ D1 - ADS-C with FANS 1/A capabilities ○ G1 - ADS-C with ATN capabilities ○ E - Transponder Mode S including aircraft identification, pressure-altitude, and extended squitter capability (ADS-B) ○ H - Transponder Mode S including aircraft identification, pressure-altitude, and enhanced surveillance capability ○ I - Transponder Mode S including aircraft identification, but no pressure-altitude capability ○ L - Transponder Mode S including aircraft identification, pressure-altitude, extended squitter, and enhanced surveillance capability ○ P - Transponder Mode S including pressure-altitude, but no aircraft identification capability ○ S - Transponder-Mode S, including both pressure-altitude and aircraft identification transmission

	○ U1 - ADS-B out capability using UAT ○ U2 ADS-B out and in capability using UAT ○ V1 - ADS-B out capability using VDL mode 4 ○ V2 - ADS-B in and out capability using VDL mode 4 ○ X - Transponder Mode S with neither aircraft identification nor pressure-altitude capability • [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 10b. Additional surveillance capabilities that cannot be listed here are transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18, preceded by 'SUR/'. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::SurveillanceEquipment
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.283 Survival Equipment Remarks

Survival Equipment Remarks	
Definition	A description of survival equipment carried on the aircraft and any other useful remarks regarding survival equipment.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	
Notes	• This data element contains free-form text. • [ICAO Standard ATS Messages] Transmitted in ALR and SPL as ICAO Field Type 19h, preceded by 'N/'. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::SupplementaryInformation.Other_SurvivalEquipment
Reference	• Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.284 Survival Equipment Type

Survival Equipment Type	
Definition	The type of equipment carried on board the aircraft that can be used by the crew and passengers to assist survival in harsh environments in case of emergency.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	one or more of the following: {P, D, M, J}
Business Rules	

Notes	• The meaning of the values is as follows:
	  ○ P - polar survival equipment
	  ○ D - desert survival equipment
	  ○ M - maritime survival equipment
	  ○ J - jungle survival equipment
	• [ICAO] Since this data is not part of the filed flight plan, it must be made available by the operator, so that it can be supplied without delay when requested by ATS units.
	• [FAA] This information is part of the supplementary flight plan data and shall be kept readily available by the operator at the departure aerodrome or another agreed location, so that, on request by ATS units, it can be supplied without delay. When transmitted by the AFTN, the message shall be assigned the same priority indicator as that in the request message. Supplementary information is stored with the flight planning service (wherever the flight plan is entered, e.g. FSS, DUATS, AOC, etc.).
	• [ICAO Standard ATS Messages] Transmitted in ALR and SPL as ICAO Field Type 19d, preceded by 'S/'.
	• [AFTN] When transmitted by the AFTN, the message shall be assigned the same priority indicator as that in the request message.
	• [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::SupplementaryInformation.survival_equipment

Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.285 Take Off Alternate Aerodrome

Take Off Alternate Aerodrome	
Definition	An alternate aerodrome at which an aircraft can land, should it become necessary shortly after take off, and it is not possible to land at the departure aerodrome.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Aerodrome
Range of Values	If expressed as ICAO location identifier, values comply with ICAO Doc. 7910
Business Rules	A take off alternate airport shall be selected and specified in the operational flight plan, if the weather conditions at the airport of departure are at or below the applicable airport operating minima, or it would not be possible to return to the departure airport for other reasons. The take off alternate must be within a specified distance of the departure airport. For an airport to be selected as a take off alternate, the available information shall indicate, at the estimated time of use, the conditions will be at or above the airport operating minima for that operation.
Notes	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18, preceded by 'TALT/'. • When expressed as a free-form alphanumeric text, it contains the actual name of the alternate take off aerodrome (e.g., 'Piedmont Triad International Airport'). • [SESAR Harmonization] Element is not present in the SESAR 10.02.05 FO. Element has been added to a list for consideration for inclusion in the SESAR model.
Reference	• ICAO Doc. 7910: Location Indicators, Edition No. 138, 2010 • Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.286 Technical Name

Technical Name	
Definition	The additional chemical name(s) required for some proper shipping names for dangerous goods.
Alternate Names	
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Line Item Details, Dangerous Goods List of Line Item Detail, Dangerous Goods List of Line Item Details
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• When added to the proper shipping name, the technical name must be shown in parentheses immediately following the proper shipping name. • Limit max size to 100 characters to limit the vulnerability of code insertion.
Notes	• This element contains free-form text. • IATA does not specify a size. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:TechnicalName
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.287 Time En Route - Estimated

Time En Route - Estimated	
Definition	The total estimated time en route, from the departure time (runway) to the arrival at the destination (runway). For an airfile flight, this is the total estimated time en route, from the route start point to the arrival at the destination (runway).
Alternate Names	Total Estimated Elapsed Time
Has Parts	
Is Part Of	
Data Type(s)	Time Duration
Range of Values	
Business Rules	
Notes	• [ICAO Standard ATS Messages] Transmitted in all Standard ATS Messages except RCF and LAM as ICAO Field Type 16b. • [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::FlightPlan.eet • This is the en route estimate made at filing time by the airspace user, considering wind and speed.
Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

3.288 Transfer Aerodromes

Transfer Aerodromes	
Definition	A list of the aerodromes through which the package has travelled en route to its final destination.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Complex
Range of Values	If expressed as ICAO location identifier, values comply with ICAO Doc. 7910 - Location Indicators.
Business Rules	
Notes	• This complex data type is comprised of one or more Aerodrome types. • This element may need input from multiple sources depending on how many times the package is transferred between carriers on a single trip. • [FAA] Not all four-letter identifiers in the United States have been published in ICAO Doc. 7910. Therefore, location identifiers may be per national Aeronautical Information Publications (AIP). • When expressed as a free-form alphanumeric string, it contains the actual name of the departure aerodrome (e.g., Flagstaff Pulliam Airport).
Reference	• ICAO Doc 7910: Location Indicators, Edition No. 138, 2010

3.289 Transport Index

Transport Index	
Definition	A figure representing the radiation level measured at one meter from the package.
Alternate Names	TI
Has Parts	
Is Part Of	Radioactive Materials
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• The TI is used in calculating how far away from passengers and crew the packages must be stowed. • This element applies only to categories of radioactive materials that are II-Yellow and III-Yellow. • Limit max size to 10 characters to limit the vulnerability of code insertion.
Notes	• IATA does not specify a size. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:RadioactiveMaterial /ram:TransportIndexNumeric
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.290 Unit Boundary

Unit Boundary	
Definition	Identifies the unit whose boundary the flight is expected to traverse, based on the planned route of flight and altitude.
Alternate Names	
Has Parts	Unit Boundary Indicator, Boundary Crossing Point/Coordinated, CPDLC Connection Status
Is Part Of	Unit Boundary List
Data Type(s)	Alphanumeric String, Container
Range of Values	
Business Rules	
Notes	Contains the unit identifier, represented using the ICAO four to six character designator. The first four characters identify the unit, and the last two optional characters identify the sub-unit.
Reference	IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 ICAO 7910, Location Indicators, latest published edition.

3.291 Unit Boundary Indicator

Unit Boundary Indicator	
Definition	An indicator of the status of the boundary crossing in the Unit Boundary List as a past crossing, the current or next crossing, or a future crossing.
Alternate Names	
Has Parts	
Is Part Of	Unit Boundary
Data Type(s)	Enumeration
Range of Values	{Past, Current, Future}
Business Rules	• Only one unit in the list may have the Unit Boundary Indicator set to 'Current' at one time. • Only one unit in the list may have the Unit Boundary Indicator set to 'Past' at one time, because historical entries older than the most recent are dropped.
Notes	
Reference	• IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.292 Unit Boundary List

Unit Boundary List	
Definition	The ordered list of units the flight is expected to traverse, based on the planned route of flight and altitude.
Alternate Names	
Has Parts	Unit Boundary
Is Part Of	
Data Type(s)	Container
Range of Values	
Business Rules	In the Unit Boundary List, there will be at most one entry retained for historical boundary crossings, at most one current boundary crossing, and zero to many entries for future boundary crossings. Only the most recent historical entry is maintained in the list at a given time. If a unit is traversed multiple times, it appears in the list multiple times, unless the crossings are historical and have already been removed from the list.
Notes	
Reference	IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01

3.293 United Nations Number

United Nations Number	
Definition	A four-digit identification number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods to identify a substance or a particular group of substances considered dangerous goods.
Alternate Names	UN/ID Number, UN Number, UN #
Has Parts	
Is Part Of	Shipper's Declaration For Dangerous Goods Line Item Details, Dangerous Goods List of Line Item Detail, Dangerous Goods List of Line Item Details
Data Type(s)	Alphanumeric String
Range of Values	"UN" followed by [0000-9999]
Business Rules	• If there are dangerous goods on board the flight, this element should be populated for emergency response usage. • UN numbers range from UN0001-UN3600.
Notes	• The UN numbers range from UN0001 to about UN3500 and are assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods as an international standard. • IATA model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:ApplicableTransportDangerousGoods /ram:UNDGIdentificationCode
Reference	• IATA SDDG Specification v2.1 • 49 CFR 172/173/175 • IATA Dangerous Goods Regulations, January 2011 • Shipper's Declaration for Dangerous Goods • Technical Instructions For The Safe Transport of Dangerous Goods by Air (Doc 9284)

3.294 Upstream Unit

Upstream Unit	
Definition	The unit the flight will enter prior to this unit, based on the planned route of flight, altitude, and accepted constraints.
Alternate Names	
Has Parts	
Is Part Of	
Data Type(s)	Unit
Range of Values	
Business Rules	
Notes	• Represented using the ICAO four to six character designator. The first four characters identify the unit, and the last two optional characters identify the sub-unit.
Reference	• IOP ATC System Requirements - Final Release for Phase 1, Deliverable ID 10.02.05.D26, Version 00.01.01 • ICAO 7910, Location Indicators, latest published edition.

3.295 Wake Turbulence Category

Wake Turbulence Category	
Definition	ICAO classification of the aircraft wake turbulence, based on the maximum certified take off mass.
Alternate Names	Wake Turbulence
Has Parts	
Is Part Of	
Data Type(s)	Enumeration
Range of Values	{L, M, H, J}
Business Rules	

Notes	• The meaning of the values is as follows:
	  ○ H (Heavy) - Aircraft types of 136,000 kg (300,000 lbs.) or more
	  ○ M (Medium) - Aircraft types less than 136,000 kg (300,000 lbs.) and more than 7,000 kg (15,500 lbs.)
	  ○ L (Light) - Aircraft types of 7,000 kg (15,500 lbs.) or less
	  ○ J (Super Heavy) - For Airbus A380-800 with a maximum take off mass in the order of 560,000 kg
	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 9c.
	• [SESAR Harmonization] Element is present in the SESAR 10.02.05 FO model as FGI::FlightPlan.wtc

Reference	• Amendment No. 1 to the Procedures For Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444) • Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007 • Aircraft Type Designators - Doc. 8643

3.296 ZIP or Postal Code

ZIP or Postal Code	
Definition	The ZIP/Postal Code corresponding to the street address.
Alternate Names	Postal Structured Address
Has Parts	
Is Part Of	Postal Structured Address
Data Type(s)	Alphanumeric String
Range of Values	
Business Rules	• IATA specifies a maximum size of nine characters.
Notes	• IATA data model Namespace = xmlns:ram='iata:datamodel:3' XML element name = ram:PostalTradeAddress /ram:PostcodeCode
Reference	• IATA SDDG Specification v2.1

Appendix A: Acronym List

Acronym	Definitions
A-CDM	Airport Collaborative Decision Making
AAFT	Actual Arrival Fix Time
AAL	American Airlines
ACARS	Aircraft Communications Addressing and Reporting System
ACC	Area Control Centre
ACGT	Actual Commencement of Ground Handling Time
ACID	Aircraft Identification
ACP	Acceptance Message
ADEP	Aerodrome of Departure
ADES	Aerodrome of Destination
ADF	Automatic Direction Finder
ADL	Aggregate Demand List
ADS	Automatic Dependent Surveillance
ADS-B	Automatic Dependent Surveillance- Broadcast
ADS-C	Automatic Dependent Surveillance- Contract
AEGT	Actual End of Ground Handling Time
AEZT	Actual End of De-Icing Time
AFIL	Air Filed Flight Plan
AFIX	Arrival Fix
AFP	Airspace Flow Program
AFTN	Aeronautical Fixed Telecommunication Network
AIBT	Actual In Block Time
AIDC	ATS Interfacility Data Communications
AIP	Aeronautical Information Publication
AIXM	Aeronautical Information Exchange Model
ALDT	Actual Landing Time
ALERFA	Alert Phase
ALR	ICAO Alerting Message

ALR	Alert
ALTRV	Altitude Reservation
ANSP	Air Navigation Service Provider
AOBT	Actual Off Block Time
AOC	Airline Operations Centre
AOCNET	Airline Operations Centre Network
AOI	Area of Interest
AOR	Area of Responsibility
APCH	Approach
AR	Arrival
ARDT	Actual Ready Time
ARTA	Actual Runway Time of Arrival
ARTCC	Air Route Traffic Control Centre
ARTD	Actual Runway Time of Departure
ARWY	Arrival Runway
ASAT	Actual Start Up Approval Time
ASCII	American Standard Code for Information Interchange
ASDI	Aircraft Situation Display to Industry
ASRI	Aviation Spectrum Resources
ASRT	Actual Start Up Request Time
ATA	Actual Time of Arrival
ATC	Air Traffic Control
ATD	Actual Time of Departure
ATFMX	Flight Approved for Exemption
ATI	Air Transport Industry
ATM	Air Traffic Management
ATN	Aeronautical Telecommunication Network
ATOT	Actual Take Off Time
ATS	Air Traffic Service
ATSU	Air Traffic Service Unit
AWB	Air Waybill
C	Centre

CAS	Calibrated Air Speed
CDM	Collaborative Decision Making
CDN	Coordination Message
CFR	Code of Federal Regulations
CGTA	Calculated Gate Time of Arrival
CGTD	Calculated Gate Time of Departure
CHG	Modification Message
CIBT	Calculated In Block Time
CIQUIME	Chemistry Information Centre for Emergencies
CLDT	Calculated Landing Time
CMS	Common Message Set
CNL	Flight Plan Cancellation Message
COBT	Calculated Off Block Time
CPDLC	Controller Pilot Data Link Communications
CPL	Current Flight Plan
CRP	Coordinated Research Program
CSC	Computer Sciences Corporation
CSI	Criticality Safety Index
CTA	Controlled Time of Arrival
CTD	Control Time of Departure
CTOP	Collaborative Trajectory Operations Program
CTOT	Calculated Take Off Time
DCL	Departure Clearance
DCT	Direct
DD	Data Dictionary
DEP	Departure Message
DETRESFA	Distress Phase
DFIX	Departure Fix
DG	Dangerous Goods
DLA	Delay Message
DME	Distance Measuring Equipment
DOF	Date of Flight

DOT	Department of Transportation
DRWY	Departure Runway
DUATS	Direct User Access Terminal Service
DVREC	Diversion Recovery
DVRSN	Diversion
EAFT	Estimated Arrival Fix Time
EAT	Expected Approach Time
EDCT	Expect Departure Clearance Time
EDFT	Estimated Departure Fix Time
EEZT	Estimated End of De-Icing time
EGTA	Estimated Gate Time of Arrival
EIBT	Estimated In Block Time
ELDT	Estimated Landing Time
ELGTA	Earliest Gate Time of Arrival
ELGTD	Earliest Gate Time of Departure
ELIBT	Earliest In Block Time
ELOBT	Earliest Off Block Time
ELT	Emergency Locator Transmitter
EPA	Environmental Protection Agency
ERAM	En Route Automation Modernization
ERG	Emergency Response Guidebook
ERTA	Earliest Runway Time of Arrival
ERTD	Earliest Runway Time of Departure
ERZT	Estimated Ready for De-Icing Time
EST	Estimate Message
ETA	Estimated Time of Arrival
ETD	Estimated Time of Departure
ETO	Estimated Time Over
ETOT	Estimated Take Off Time
EXOT	Estimated Taxi-Out Time
FAA	Federal Aviation Administration
FANS	Future Air Navigation System

FCA	Flow Constrained Area
FCO	Facilities Notification Contact
FDB	Flight Plan Data Bank
FDE	Flight Data Element
FFR	Fire Fighting Aircraft
FIR	Flight Information Region
FIS	Flight Information Service
FIXM	Flight Information Exchange Model
FL	Flight Level
FLTCK	Flight Check Aircraft
FMC	Flight Management Computer
FMD	Flight Management Computer (Selected)
FMH	Facilities Notification Message Header
FML	Flight Management Computer (Left)
FO	Flight Operator
FO	Flight Object
FP	Flight Plan
FPL	Flight Plan Message
FPO	Facilities Notification Current Position
FSS	Flight Service Station
FTM	Flight Table Manager
FUL	Fullerton, California
GAT	General Air Traffic
GBAS	Ground Based Augmentation System
GDP	Ground Delay Program
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
GUFI	Globally Unique Flight Identifier
HAZMAT	Hazardous Materials or Carrying Hazardous Materials
HEAD	Head of State Status
HF	High Frequency
HFDL	High Frequency Data Link

Hg	Mercury
HOSP	Hospital Wing Aircraft
HOST	FAA En Route Computer System
hPa	Hecto Pascals
HUM	Humanitarian Mission
IAF	Initial Approach Fix
IAS	Indicated Airspeed
IATA	International Air Transport Association
IAW	In Accordance With
ICAO	International Civil Aviation Organization
ICD	Interface Control Document
ID	Identification
IFR	Instrument Flight Rules
IGTA	Initial Gate Time of Arrival
IGTD	Initial Gate Time of Departure
ILS	Instrument Landing System
INCERFA	Uncertainty Phase
INS	Inertial Navigation System
IOP	Interoperability
IPOP	Intermediate Point of Presence
IRS	Inertial Reference System
IRU	Inertial Reference Unit
ISO	International Organization for Standardization
JCAB	Japan Civil Aviation Bureau
JTR	Jet Airways
kHz	Kilohertz
KLM	Royal Dutch Airlines
Km	Kilometre
Kt	Knot
L	Left
LAM	Logical Acknowledgement Message
LGTD	Airline Gate of Departure

LORAN	Long Range Navigation
LPV	Localizer Performance with Vertical Guidance
MARSA	Military Assumes Responsibility for Separation of Aircraft
MEDEVAC	Emergency Medical Evacuation Aircraft
MHz	Megahertz
MLS	Microwave Landing System
MNPS	Minimum Navigation Performance Specification
MSDS	Materials Safety Data Sheet
MTSAT	Multifunction Transport Satellite
NAM	North American
NAN	Next Authority Notified
NAS	National Airspace System
NAVAID	Navigational Aid
NDB	Non-Directional Beacon
NGA	Nigeria Airways
OAG	Official Airline Guide
OAT	Operational Air Traffic
OAT	Outside Air Temperature
OLDI	On-Line Data Interchange
OSHA	Occupational Safety and Health Administration
PANS	Procedures for Air Navigation Services
PBN	Performance Based Navigation
PDC	Pre-Departure Clearance
PHMSA	Pipeline and Hazardous Materials Safety Administration
PIC	Pilot-in-Command
POV	Point of View
R	Right
RCF	Radio Communications Failure
RCP	Required Communication Performance
RF	Radio Frequency
RNAV	Area Navigation
RNP	Required Navigation Performance

RQP	Request Flight Plan Message
RQS	Request Message
RTF	Radio Telephone
RVSM	Reduced Vertical Separation Minima
SAR	Search and Rescue
SATCOM	Satellite Communications
SC	Slot Create
SCT	Secretariat of Communications and Transport
SDDG	Shipper's Declaration for Dangerous Goods
SELCAL	Selective Calling Radio System
SESAR	Single European Sky ATM Research
SID	Standard Instrument Departure
SMGCS	Surface Movement Guidance & Control System
SMI	Standard Message Identifier
SOBT	Scheduled Off Block Time
SSR	Secondary Surveillance Radar
STAR	Standard Terminal Arrival Route
STATE	Engaged in Military, Customs or Police Services
TACAN	Tactical Air Navigation System
TAS	True Airspeed
TC	Transport Canada
TFL	Transfer Level
TFM	Traffic Flow Management
TFM-DE	Traffic Flow Management Data Exchange
TFM-M	Traffic Flow Management - Modernization
TFMS	Traffic Flow Management System
TI	Transport Index
TLDT	Target Landing Time
TMI	Traffic Management Initiative
TOBT	Target Off Block Time
TSA	Transportation Security Administration
TSAT	Target Start Up Approval Time

TTG	Time to Gain
TTL	Time to Lose
TTOT	Target Take Off Time
UAT	Universal Access Transceiver
UHF	Ultra High Frequency
UN	United Nations
UNECE	United Nations Economic Commission for Europe
UOM	Unit of Measure
US	United States
UTC	Universal Coordinated Time
VDL	VHF Digital Link
VFR	Visual Flight Rules
VHF	Very High Frequency
VOR	VHF Omnidirectional Radio Range
WPR	Waypoint Position Reporting
XML	Extensible Markup Language

Appendix B: Glossary

Term	Description of Changes
ACP	Designator for the standard ATS message type “Acceptance,” which falls under the “Coordination” message category.
Actual	When an event happened, or a calculated duration after a begin/end pair has become actual.
ALR	Designator for the standard ATS message type “Alerting,” which falls under the “Emergency” message category.
ARR	Designator for the standard ATS message type “Arrival,” which falls under the “Filed flight plan and associated update” message category.
CDN	Designator for the standard ATS message type “Coordination,” which falls under the “Coordination” message category.
CHG	Designator for the standard ATS message type “Modification,” which falls under the “Filed flight plan and associated update” message category.
CNL	Designator for the standard ATS message type “Cancellation,” which falls under the “Filed flight plan and associated update” message category.
Controlled	A time calculated and issued by the appropriate central management unit, as a result of tactical slot allocation. May be referred to as “calculated” or “constrained.”
CPL	Designator for the standard ATS message type “Current flight plan,” which falls under the “Coordination” message category.
DEP	Designator for the standard ATS message type “Departure,” which falls under the “Filed flight plan and associated update” message category.
DLA	Designator for the standard ATS message type “Delay,” which falls under the “Filed flight plan and associated update” message category.
Earliest	The earliest possible time at which events can occur. Usually provided by the flight operator.
EST	Designator for the standard ATS message type “Estimate,” which falls under the “Coordination” message category.
Estimated	A predicted time, based on considering the Flight Operator’s intentions along with all other sources. May be referred to as “desired” or “expected.”
Filed	Filed by a flight operator in a flight plan.
FPL	Designator for the standard ATS message type “Filed flight plan,” which falls under the “Filed flight plan and associated update” message category.
Initial	The original value of a proposed time, prior to any later amendments.
INMARSAT	In the context of this document, INMARSAT is used to specify that data is transiting via the INMARSAT satellite network.

Iridium	In the context of this document, Iridium is used to specify that data is transiting via the Iridium satellite network.
LAM	Designator for the standard ATS message type “Logical acknowledgement,” which falls under the “Coordination” message category.
MTSAT	In the context of this document, MTSAT (Multifunctional Transport Satellites) is used to specify that data is transiting via the MTSAT satellite network.
Proposed	A time that is being negotiated for coordination purposes between two ATC entities.
RCF	Designator for the standard ATS message type “Radio communication failure,” which falls under the “Emergency” message category.
Required	Necessary, essential.
RQP	Designator for the standard ATS message type “Request flight plan,” which falls under the “Supplementary” message category.
Scheduled	A time provided by a Flight Operator, or directly derived from such a time. In some cases, external factors such as the availability of slots are considered.
SPL	Designator for the standard ATS message type “Supplementary flight plan,” which falls under the “Supplementary” message category.
Target	A time agreed upon between two or more interested parties (such as between a Flight Operator and Air/Ground Services Providers), or directly derived from such a time.