Flight Information Exchange Model Data Dictionary

Air Traffic Management (ATM) has evolved rapidly in the previous decades, from using localized, uncoordinated automation systems to implementing national, highly integrated systems. To manage the volume and complexity of the future, ATM must include international integration of flight control systems. This effort requires many standardization steps, but one of the most important is the common definition of the data that constitute a flight. 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 airspace users such as ATM, airlines, airport personnel, and air safety providers. When a majority of the world's flight control systems are able to read and write flight messages in a common FIXM format, they will be able to coordinate the management of air traffic seamlessly.

This FIXM Data Dictionary (FIXM DD) provides a conceptual explanation of the flight data elements (FDEs) that are 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 documents where the FDEs can be found. The FIXM DD is complementary to the other FIXM artifacts such as the FIXM models and the FIXM schemas. Future iterations of the FIXM DD will include information that reflects FDEs that have been derived directly from the physical layer (model and schema) of FIXM development.

The FIXM DD continues to evolve with the development of FIXM. This iteration of FIXM, FIXM 1.1, catalogues FDEs that are associated with the exchange of the ICAO 2012 Flight Plan, the newly-developed Globally Unique Flight Identifier (GUFI), and the tracking of hazardous air cargo.

December 20th, 2012

Version: 1.1

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Document History

Version	Date	Entered By	Description of changes
0.90	April 13, 2012	Booz Allen Hamilton	• Produced the first draft based on the Flight Object Ontology FIXM report
0.91	April 19, 2012	Booz Allen Hamilton	• Adjudicated first round of comments from development team
0.92	June 6, 2012	Booz Allen Hamilton	• Updated Data Dictionary based on stakeholder feedback
1.0 (Draft)	June 27, 2012	Booz Allen Hamilton	• Incorporated updates from stakeholder feedback and operated minor editorial changes
1.0 (Draft)	August 8, 2012	Booz Allen Hamilton	• Incorporated updates from stakeholder feedback and operated minor editorial changes
1.0	August 17, 2012	Booz Allen Hamilton	• 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)
1.1	December 20, 2012	Booz Allen Hamilton	• Added Hazardous data elements • Added the use of 'container' elements • Incorporated minor editorial changes resulting from comments to v1.0

Contents

1 Dictionary Metadata Definitions

The dictionary-level metadata provides information about the FIXM Data Dictionary (FIXM DD) as a traceable entity. This metadata is used to identify specific versions of the Data Dictionary and help provide configuration management support.

1.1 Version

This metadata contains the version number of the document. This data can be used to provide configuration management and version control for the document. The version number consists of a major version number followed by a minor version number followed by a maintenance release number. The three numbers are separated by the period character ('.'). An example of a version number is "1.0.2".

The version number is assigned by the FIXM developer, following these rules:

1. The major version number is incremented whenever there are significant changes in the scope or content of FIXM. It is expected that major releases entail changes to the systems that use FIXM.
2. The minor version number is incremented whenever small changes to the scope or content of FIXM are operated. Minor releases are not expected to introduce significant changes to the systems using FIXM.
3. The maintenance release number is incremented whenever small changes are made to the FIXM documentation, but with no changes made to the model and schema. Most of these changes are editorial. Maintenance releases should not entail any changes to the systems using FIXM.

1.2 Date

This metadata captures the date the current version of the document was officially released. This information, together with the version number, is used to provide configuration management and version control.

1.3 Author

This metadata captures the name and affiliation of the persons or organizations who contributed to the current version of the FIXM Data Dictionary.

1.4 Description of Changes

This metadata contains brief descriptions of the changes operated since the previous version.

2 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. They are as follows:

2.1 Name

This metadata captures a unique, descriptive name for the data element. The naming convention used in this document attempts to fulfill 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.
2. The name should express – as much as possible – the type of data that 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”.

2.2 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 avoids jargon or references to systems’ behavior and is clear and succinct.

2.3 Alternate Names

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

2.4 Has Parts

This metadata lists any other (possibly more basic) data elements contained by the data element to which the metadata refers. For example, the data element aircraft might have the following parts: aircraftId, wakeTurbulenceCategory, operatingAgency, and aircraftRegistrationMark.

2.5 Is Part Of

This metadata lists any data elements which contain (or reference) the data element to which the metadata refers. For example, an altitude data element might be a part of both trajectory and aircraft.

2.6 Range of Values

This metadata indicates the range of the 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 case of an enumeration, this metadata also specifies if the data element can take only one or multiple of the enumeration values.
There are a few exceptions to how this metadata is used in the Data Dictionary:

1. In some cases, the list of all the 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 either a free-form text value or one or more values from a controlled vocabulary. In these cases, “Range of Values” captures the controlled vocabulary, and the “Notes” section mentions the dual nature of the data element’s value.

Notation

The following notation conventions are used to describe the range of values:

1. Discrete enumeration. Predefined values that 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. These are ranges of numbers that are 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. These are ranges 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, that 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 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 that further defines the range:

1. Multiplicity. The number of values that 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 "one of the following values: {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. Date / Time. Any value for date/ time stamps is acceptable, subject to business rule restrictions (e.g., flight arrival time should be greater than flight departure time.)
3. Complex data elements. Certain data elements are complex in nature (they contain other data elements as components.) In these cases, the range of values is not specified (the value of the metadata field is "N/A".)
4. Polymorphism. Certain data elements can be expressed in multiple ways (e.g., either as a free-form text or a value from a controlled vocabulary). If one of the forms of the data element has a well-defined range, it will be captured in the "Range of Values" field – with the appropriate explanation as to which form the range applies.
5. Multiple Units of Measure (UOM). Some data elements (notably altitudes) can be expressed in multiple units of measure (e.g., feet, meters). In this case, a separate range is provided for each unit of measure.

2.7 Business Rules

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

1. describe rules for grouping or associating data elements

2. define role or functionality associated with data elements
3. describe rules for using the data elements in specific contexts

For example, a business rule for Length of Time Out Delay might be "Time out delay logic is not applied to international flights."

2.8 Notes

This metadata captures any information or knowledge that does not fit in the metadata above.

2.9 References

This metadata lists specific documents which further define, explain, and/or provide additional information about the data element, its context and its role.

3 Data Types

Each of the data elements captured in this Data Dictionary is of one of the data types below:

	Data Type	Description
1.	Alpha Character	One upper-case alphabetic character in the range [A-Z]
2.	Alpha String	String of upper-case alphabetic characters in the range [A-Z]
3.	Alphanumeric Character	One character that is in the following range: {[A-Z], [0-9], -,?,:, (,), ., ,, ‘, =, /,+}
4.	Alphanumeric String	String of characters that are 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.
5.	Altitude	The altitude can be expressed in two ways: **Flight Level**. A 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. It is not necessarily the same as the aircraft's true altitude, either above mean sea level or above ground level. **Altitude**. This is the real altitude calculated by the aircraft, by measuring the air pressure and adjusting it for the local air pressure. Both Flight Level and Altitude can be expressed in meters or feet.
6.	Boolean	This data type has one of two values (usually denoted ***true*** or ***false***), intended to provide the truth value of a state represented by the data element (e.g., if the “Flight Plan Accepted” data element has the value ***true***, it signifies that the flight plan was accepted)
7.	Complex	This data type is a combination of two or more other data types and is associated with data elements that are composed of multiple parts.
8.	Date Time	Represents a specific instance of time (including the 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

	Data Type	Description
		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.
9.	Enumeration	This data type represents one or multiple choices from a finite, predefined and 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.
10.	Float	Represents single-precision, 32-bit, floating-point numbers.
11.	Integer	Represents an integer number.
12.	Location	This data type describes a geographic location. For the purposes of FIXM, the location can be defined in any of the following ways: 1. **Location Identifier**. The location is identified by a predefined 2-5 character long string. This string can be either an aerodrome code or a fix name. Aerodrome codes are published in ICAO Document 7910 and FAA Order JO 7350.8T. U.S. fix names are published in FAA Order JO 7350.8T. 2. **Latitude/Longitude**. The location is defined by a pair of latitude and longitude coordinates. 3. **Fix-radial-distance**. The location is defined by three values: a navigation aid identifier (typically a VOR), a magnetic heading, and a distance. Typically, the distance is expressed in nautical miles.
13.	Numeric Character	One numeric character in the range [0-9].
14.	Numeric String	String of numeric characters in the range [0-9].
15.	Time Interval	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.

4 Dictionary Metadata

Version	1.1
Error! Reference source not found.	12/20/2012
Error! Reference source not found.	Booz Allen Hamilton
Error! Reference source not found.	• Added Hazardous data elements • Added the use of 'container' elements • Incorporated minor editorial changes resulting from comments to v1.0

5 Data Elements

5.1 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	Alphanumeric String
Range of Values	N/A
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

5.2 Activity

Activity	
Definition	The measure of the rate of decay, or activity, of a radioactive material.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Float
Range of Values	Non-negative
Business Rules	
Notes	• For the attribute unit of measurement - Indicates the Unit of Measure 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, multiples of Becquerel, Grams or multiples of Grams. • 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)

5.3 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	
Data Type	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 that is 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

5.4 Aerodrome of Loading

Aerodrome of Loading	
Definition	The aerodrome where hazardous cargo was loaded onto the flight. The aerodrome can be expressed as an ICAO designator, the name of the aerodrome, or the location identified as one of the following: a named fix, a pair of latitude/longitude coordinates, bearing and distance from the nearest significant point, or a marker radio beacon.
Alternate Names	Loading Location Name, Loading Location Code
Has Parts	
Is Part Of	
Data Type	Location or Alphanumeric String
Range of Values	If expressed as ICAO location identifier, values comply with ICAO Doc. 7910
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 4-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

5.6 Aerodrome of Unloading

Aerodrome of Unloading	
Definition	The aerodrome where hazardous cargo was unloaded from the flight. The aerodrome can be expressed as an ICAO designator, the name of the aerodrome, or the location identified as one of the following: a named fix, a pair of latitude/longitude coordinates, bearing and distance from the nearest significant point, or a marker radio beacon.
Alternate Names	Unloading Location Code, Unloading Location Name
Has Parts	
Is Part Of	
Data Type	Location or Alphanumeric String
Range of Values	If expressed as ICAO location identifier, values comply with ICAO Doc. 7910
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 4-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

5.7 Air Waybill Number

Air Waybill Number	
Definition	The number referencing the air waybill (AWB).
Alternate Names	Document Reference Number, Air Consignment Number
Has Parts	
Is Part Of	
Data Type	Alphanumeric String
Range of Values	
Business Rules	• Limit length to 100 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

5.8 Aircraft Address

Aircraft Address	
Definition	A code that enables the exchange of text-based messages between suitably equipped ATS ground systems and aircraft cockpit displays.
Alternate Names	24-bit Address, Mode S Address
Has Parts	
Is Part Of	
Data Type	Numeric String
Range of Values	F00001 - FFFFFF (hexadecimal numbers)
Business Rules	Assigned in accordance with the provisions of ICAO Annex 10, Volume 3.
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

5.9 Aircraft Color and Markings

Aircraft Color and Markings	
Definition	The colors of the aircraft and a description of its significant markings.
Alternate Names	Significant Markings
Has Parts	
Is Part Of	
Data Type	Alphanumeric String
Range of Values	N/A
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

5.10 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	
Data Type	Enumeration
Range of Values	One of {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

5.11 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	Alphanumeric String
Range of Values	N/A
Business Rules	

Notes	• This field identifies the flight from a controller's 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

5.12 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	Alphanumeric String
Range of Values	N/A
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

5.13 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 maneuverability to specific instrument approach procedures.
Alternate Names	Aircraft Performance Data, Performance Category
Has Parts	
Is Part Of	
Data Type	Enumeration
Range of Values	One of the following letters: {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

5.14 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	Integer
Range of Values	[2 - 99]
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

5.15 Aircraft Registration Mark

Aircraft Registration Mark	
Definition	A unique, alphanumeric string that identifies a civil aircraft. This is made up 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	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 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

5.16 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	Alphanumeric String
Range of Values	Valid range of identifiers described in ICAO Doc. 8643
Business Rules	Approved aircraft type designators are defined in ICAO Doc. 8643.
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

5.17 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	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. • [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

5.18 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	
Data Type	Alphanumeric String
Range of Values	The string 'All packed in one' followed by a description of the packaging type 'x' the number of packages
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

5.19 Arrival Aerodrome

Arrival Aerodrome	
Definition	The ICAO designator or the name of the aerodrome at which the flight has arrived; the arrival location is identified as one of the following: a named fix, a pair of latitude/longitude coordinates, bearing and distance from the nearest significant point, or a marker radio beacon.
Alternate Names	Arrival Airport
Has Parts	
Is Part Of	
Data Type	Location or Alphanumeric String
Range of Values	If expressed as ICAO location identifier values comply with ICAO Doc. 7910
Business Rules	An Aerodrome location identifier is per ICAO Doc. 7910. 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 4-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

5.20 Arrival Time – Actual

Arrival Time - Actual	
Definition	For IFR flights, the time at which the aircraft arrived at a designated point, defined by reference aids, from which an instrument approach procedure commenced, or, if no navigation aid was associated with the aerodrome, the time at which the aircraft arrived at the aerodrome. For VFR flights, the time at which the aircraft arrived at the aerodrome.
Alternate Names	Time of Arrival, Actual Time of Arrival
Has Parts	
Is Part Of	
Data Type	Date Time
Range of Values	N/A
Business Rules	
Notes	• The time is given in UTC. • [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.
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

5.21 Arrival Time – Estimated

Arrival Time - Estimated	
Definition	The estimated time at which the aircraft will arrive (wheels down) at the destination aerodrome. This time is given in UTC.
Alternate Names	Estimated Time of Arrival, ETA
Has Parts	
Is Part Of	
Data Type	Date Time
Range of Values	
Business Rules	This data element is supplied only if the Time Enroute - Estimated was filed with the flight plan.
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

5.22 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	Numeric String
Range of Values	[0000 - 7777] (expressed as octal numbers - each digit is in the range [0-7])
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

5.23 Boundary Crossing Condition

Boundary Crossing Condition	
Definition	Indicator of whether an aircraft will cross an associated boundary crossing point at or above, or at or below the altitude specified by the Boundary Crossing Level - Transition.
Alternate Names	Crossing Condition
Has Parts	
Is Part Of	
Data Type	Enumeration
Range of Values	One of the following values: {A, B}
Business Rules	This data element is always associated with Boundary Crossing Level - Transition.

Notes	• The meaning of the values is the following:
	  ○ A - at or above
	  ○ B - at or below
	• [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

5.24 Boundary Crossing Level – Cleared

Boundary Crossing Level - Cleared	
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	Altitude
Range of Values	[0-130,000] if expressed in feet, [0 - 40,000] if expressed in meters
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.
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

5.25 Boundary Crossing Level – Transition

Boundary Crossing Level - Transition	
Definition	An altitude (flight level) at or above/below which (specified in Boundary Crossing Condition) an aircraft will cross the associated boundary point.
Alternate Names	Supplementary Crossing Data
Has Parts	
Is Part Of	
Data Type	Altitude
Range of Values	[0-130,000] if expressed in feet, [0 - 40,000] if expressed in meters
Business Rules	
Notes	• [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
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

5.26 Boundary Crossing Point

Boundary Crossing Point	
Definition	The point where the flight will cross an ATS facility boundary.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Location
Range of Values	If expressed as ICAO location identifier, values comply with ICAO Doc. 7910
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

5.27 Boundary Crossing Time

Boundary Crossing Time	
Definition	The estimated time at which a flight will cross the associated boundary crossing point. The time is given in UTC.
Alternate Names	Time at Boundary Point
Has Parts	
Is Part Of	
Data Type	Date Time
Range of Values	N/A
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

5.28 Change Cruise Climb

Change Cruise Climb	
Definition	The parameters of a cruise climb executed at the associated significant point. It contains the following parameters: 1. the speed to be maintained during cruise climb; 2. either the minimum and maximum levels defining the layer to be occupied during cruise climb, or the level above which cruise climb is planned.
Alternate Names	Cruise Climb
Has Parts	Speed, Initial Altitude, Final Altitude, Above Altitude
Is Part Of	
Data Type	Complex
Range of Values	Speed: [0-2,200] if expressed in knots, [0-4,000] if expressed in km/h, [0-3.8] if expressed in mach. Altitude: [0-130,000] if expressed in feet, [0-40,000] if expressed in meters.
Business Rules	• This data element is always associated with a Significant Point data element.
Notes	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 15c6.
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

5.29 Change Flight Rules

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	Enumeration
Range of Values	One of the following values: {IFR, VFR}
Business Rules	• This data element is always associated with a 'Significant Point' data element.

Notes	• [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

5.30 Change Speed and Altitude

Change Speed and Altitude	
Definition	The planned speed and altitude that the aircraft will change to upon reaching the associated Significant Point along its Route.
Alternate Names	Change of Speed, Change of Level
Has Parts	Speed, Altitude
Is Part Of	
Data Type	Complex
Range of Values	Speed: [0-2,200] if expressed in knots, [0-4,000] if expressed in km/h, [0-3.8] if expressed in mach. Altitude: [0-130,000] if expressed in feet, [0-40,000] if expressed in meters.
Business Rules	• This data element is always associated with a Significant Point data element.
Notes	• [ICAO Standard ATS Messages] Transmitted in ALR, FPL, and CPL as ICAO Field Type 15c4.
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

5.31 City Name

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

5.32 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	Enumeration or Alphanumeric String
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 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). If transmitted as Field Type 18, the letter 'Z' is used in Item 10a.
	• [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

5.33 Compatibility Group

Compatibility Group	
Definition	When shipping hazardous cargo, the reference to the group which identifies the kind of substances and articles that are deemed to be compatible. 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.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Enumeration
Range of Values	One of [A to 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 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)

5.34 Consignee Address

Consignee Address	
Definition	Specifies the consignee's mailing address.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Alphanumeric String
Range of Values	
Business Rules	• The Shipper Address 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)

5.35 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	
Data Type	Alphanumeric String
Range of Values	
Business Rules	• In case of transport of infectious substances, this element should be populated. • Limit max size to 100 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)

5.36 Consignee Name

Consignee Name	
Definition	Contains the name or legal identity of the organization or person receiving the package. Additional names may be specified in this field.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Alphanumeric String
Range of Values	
Business Rules	
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)

5.37 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	
Data Type	Complex
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

5.38 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	
Data Type	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)

5.39 Control Temperature

Control Temperature	
Definition	The maximum temperature at which the substance can be safely transported.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Numeric String
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)

5.40 Country Code

Country Code	
Definition	A code that indicates a country.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Enumeration
Range of Values	
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 2 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

5.41 Country Name

Country Name	
Definition	The name of a country.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	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

5.42 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	
Data Type	Alphanumeric String
Range of Values	The string 'CSI' followed by number expressed to one decimal place
Business Rules	• Applies to fissile material only. • Maximum size of 10 to limit the vulnerability to code insertion.
Notes	• CSI designates the degree of control of accumulation of packages containing fissile material during transportation. • 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)

5.43 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	Altitude
Range of Values	[0-130,000] if expressed in feet, [0-40,000] if expressed in meters
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

5.44 Cruising Speed

Cruising Speed	
Definition	The filed true airspeed for the first or the whole cruising portion of the flight.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Float
Range of Values	[0-2,200] if expressed in knots, [0-4,000] if expressed in km/h, [0-3.8] if expressed in Mach
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
Reference	• Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM ICAO 4444), 2007

5.45 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	
Data Type	Float
Range of Values	
Business Rules	• If there is hazardous cargo on board the flight, this element should be populated for emergency response usage. • This value is non-negative.
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)

5.46 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	
Data Type	Complex
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

5.47 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	
Data Type	Complex
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

5.48 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	
Data Type	Complex
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

5.49 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	
Data Type	Float
Range of Values	
Business Rules	• If there is hazardous cargo on board the flight, this element should be populated for emergency response usage. • This item is non-negative.
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 Becquerel, multiples of Becquerel, 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)

5.50 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	
Data Type	Complex
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

5.51 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	
Data Type	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)

5.52 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	Location or Alphanumeric String
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 that the package has not been screened or that 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

5.53 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	
Data Type	Alphanumeric String
Range of Values	
Business Rules	
Notes	• 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)

5.54 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	
Data Type	Float
Range of Values	
Business Rules	• If there is hazardous cargo on board the flight, this element should be populated for emergency response usage. • This item is non-negative.
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)

5.55 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	Enumeration or Alphanumeric String
Range of Values	One or more of the following values: {J1, J2, J3, J4, J5, J6, J7}
Business Rules	

Notes	• This data element can contain either free-form text or a combination of the following 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). If transmitted as Field Type 18, 'Z' is inserted in item 10a.
	• [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

5.56 Declaration Text: Compliance

Declaration Text: Compliance	
Definition	The warning message for not complying with the regulations.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Alphanumeric String
Range of Values	
Business Rules	• This is mandatory for Hazardous/Dangerous Goods transported by air. • Limit max size to 300 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

5.57 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	
Data Type	Alphanumeric String
Range of Values	
Business Rules	• This is mandatory for Dangerous Goods shipments. • Limit max size to 300 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

5.58 Declaration Text: Shipper

Declaration Text: Shipper	
Definition	This shipper's statement indicating that the dangerous goods have been packaged and handled according to regulations.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Alphanumeric String
Range of Values	
Business Rules	• This is mandatory for Hazardous Cargo / Dangerous Goods transported by air. • Limit max size to 300 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

5.59 Department

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

5.60 Departure Aerodrome

Departure Aerodrome	
Definition	The ICAO designator of the aerodrome from which the flight departs. The aerodrome can be expressed as an ICAO designator, the name of the aerodrome, or the location identified as one of the following: a named fix, a pair of latitude/longitude coordinates, bearing and distance from the nearest significant point, or a marker radio beacon
Alternate Names	Departure Airport
Has Parts	
Is Part Of	
Data Type	Location or Alphanumeric String
Range of Values	If expressed as ICAO location identifier, values comply with ICAO Doc. 7910
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 4-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

5.61 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	
Data Type	Complex
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

5.62 Departure Time – Actual

Departure Time - Actual	
Definition	The actual time of departure from the aerodrome, or the actual time of departure from the first point on the Route when the flight is an 'air file', i.e., the flight plan is filed once the aircraft is already airborne. This time is given in UTC.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Date Time
Range of Values	
Business Rules	
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. Also, in FPL messages derived from flight plans filed in the air, as shown by the letters AFIL in the Departure Aerodrome. 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.
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

5.63 Departure Time – Estimated

Departure Time - Estimated	
Definition	The estimated off-block time for the flight at the Departure Aerodrome, or, if the flight plan is filed in the air, the estimated time of departure from the first point on the route. The time is given in UTC.
Alternate Names	Estimated Off-Block Time
Has Parts	
Is Part Of	
Data Type	Date Time
Range of Values	
Business Rules	
Notes	• 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 2 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	• 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

5.64 Destination Aerodrome

Destination Aerodrome	
Definition	The ICAO designator or the name of the aerodrome at which the flight is scheduled to arrive, the destination location identified as one of the following: a named fix, a pair of latitude/longitude coordinates, bearing and distance from the nearest significant point, or a marker radio beacon.
Alternate Names	Destination Airport
Has Parts	
Is Part Of	
Data Type	Location or Alphanumeric String
Range of Values	If expressed as ICAO location identifier values comply with ICAO Doc. 7910
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 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 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

5.65 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 identified as one of the following: a named fix, a pair of latitude/longitude coordinates, bearing and distance from the nearest significant point, or a marker radio beacon.
Alternate Names	Destination Alternate Aerodrome, Alternate Airport
Has Parts	
Is Part Of	
Data Type	Location or Alphanumeric String
Range of Values	If expressed as ICAO location identifier values comply with ICAO Doc. 7910
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

5.66 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	
Data Type	Complex
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

5.67 Dinghy Color

Dinghy Color	
Definition	The color of the dinghies carried by the aircraft.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	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

5.68 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	Enumeration
Range of Values	One of the following 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

5.69 Dinghy Quantity

Dinghy Quantity	
Definition	The number of dinghies carried by the aircraft.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	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

5.70 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	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

5.71 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	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

5.72 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	Alphanumeric String
Range of Values	ATS unit identifier values are published in ICAO Doc. 7910
Business Rules	Reference ICAO Doc. 7910 for 4-letter location indicators.
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

5.73 Emergency Phase

Emergency Phase	
Definition	Stage of emergency that the flight is currently under (uncertainty, alert, or distress), as designated by an ATS unit.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Enumeration
Range of Values	One of the following values: {INCERFA, ALERFA, DETRESFA}
Business Rules	

Notes	• The meaning of the values is as follows:
	  ○ INCERFA - uncertainty phase
	  ○ ALERFA - alert phase
	  ○ DETRESFA - distress phase
	• [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

5.74 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	Enumeration
Range of Values	One or more of the following values: {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

5.75 Emergency Response Guidebook Number

Emergency Response Guidebook Number	
Definition	A reference to a set of instructions to handle a specific hazardous material situation.
Alternate Names	ERG #
Has Parts	
Is Part Of	
Data Type	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 Center 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

5.76 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	
Data Type	Numeric String
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)

5.77 En Route Alternate Aerodrome

En Route Alternate Aerodrome	
Definition	An ICAO designator of the aerodrome (identified as one of the following: a named fix, a pair of latitude/longitude coordinates, bearing and distance from the nearest significant point, or a marker radio beacon) to which a flight could be diverted to while en route, if needed.
Alternate Names	Enroute Alternate, Enroute Alternates
Has Parts	
Is Part Of	
Data Type	Location or Alphanumeric String
Range of Values	If expressed as ICAO location identifier, values comply with ICAO Doc. 7910
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

5.78 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	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 enroute 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

5.79 Estimated Elapsed Time

Estimated Elapsed Time	
Definition	The estimated amount of time from takeoff to arrival over the initial approach fix (for IFR flights), or over the destination aerodrome (for VFR flights), or FIR boundary.
Alternate Names	EET
Has Parts	
Is Part Of	
Data Type	Time Duration
Range of Values	N/A
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.
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

5.80 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	
Data Type	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)

5.81 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	
Data Type	Enumeration
Range of Values	One of {YES, NO}
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)

5.82 Flight Plan Accepted

Flight Plan Accepted	
Definition	An indicator of acceptance of the flight plan by the appropriate ATS authority.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	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

5.83 Flight Plan Filer

Flight Plan Filer	
Definition	The name of the unit, agency or person filing the flight plan.
Alternate Names	Filed By
Has Parts	
Is Part Of	
Data Type	Alphanumeric String
Range of Values	
Business Rules	• 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.
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

5.84 Flight Plan Identifier

Flight Plan Identifier	
Definition	The flight plan identifier is used to uniquely name a flight plan within the scope of its flight. This would be used in the case where there are multiple proposed flight plans for the flight.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Alphanumeric String
Range of Values	
Business Rules	
Notes	
Reference	

5.85 Flight Plan Originator

Flight Plan Originator	
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	Alphanumeric String
Range of Values	The range of values for the 4-letter location identifiers is published in ICAO Doc. 7910. Three letter designators are published in ICAO Doc. 8585
Business Rules	• 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.
Notes	• This data element can contain free-form text. • [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

5.86 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	Enumeration
Range of Values	One of the following values: {I, V, Y, Z}
Business Rules	• May be changed by 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

5.87 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	Enumeration
Range of Values	One of the following 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

5.88 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 takeoff
Alternate Names	Endurance
Has Parts	
Is Part Of	
Data Type	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

5.89 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, Flight ID, Flight Identifier
Has Parts	
Is Part Of	
Data Type	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. 2 to 10 characters. Examples: us, euro. 2. **Field 2**: Unique organization code. Can be any unique flight operator code, such as a tail number. 2 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. 20 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 1 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.

5.90 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 that 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	
Data Type	Alphanumeric String
Range of Values	Class: [1,9], Division: [0, 99]
Business Rules	• If there is hazardous cargo 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)

5.91 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	Complex
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

5.92 Inter-Facility Remarks

Inter-Facility 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 takeoff).
Alternate Names	Remarks
Has Parts	
Is Part Of	
Data Type	Alphanumeric String
Range of Values	N/A
Business Rules	
Notes	• This data element contains free-form text. • [ICAO Standard ATS Messages] Transmitted in ALR, FPL, CPL, and SPL as ICAO Field Type 18, preceded by 'RMK/'. • [NAS CMS] This data element corresponds to Field 11. • [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

5.93 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	Float
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

5.94 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	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

5.95 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	Alphanumeric String
Range of Values	ATS unit indicators are published in ICAO Doc. 7910
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 center. 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

5.96 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	Location, Date Time
Is Part Of	
Data Type	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

5.97 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	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

5.98 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	Enumeration
Range of Values	One or more of the following values: {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

5.99 Low Dispersible Material Indicator

Low Dispersible Material Indicator	
Definition	An indicator that 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	
Data Type	Enumeration
Range of Values	One of {'Low Dispersible Radioactive Material', [blank]}
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)

5.100 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	
Data Type	Enumeration
Range of Values	One of {'Marine Pollutant', [blank]}
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)

5.101 Navigation Capabilities

Navigation Capabilities	
Definition	The serviceable navigation equipment, available onboard the aircraft at the time of flight and for which the flight crew is qualified.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Enumeration or Alphanumeric String
Range of Values	One or more of the following values (if enumeration): {A, B, C, D, F, G, I, K, L, O, T, W, X}
Business Rules	

Notes	• This data element can contain either free-form text or a combination of the following 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), and 'Z' is used in Item 10a. 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

5.102 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	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

5.103 Onboard Hazardous Cargo Location

Onboard Hazardous Cargo Location	
Definition	The location of a hazardous cargo shipment inside the airframe.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Alphanumeric String
Range of Values	
Business Rules	• If there is hazardous cargo 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 onboard 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)

5.104 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	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

5.105 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	Enumeration
Range of Values	One of {Overpack Used, Overpack, [blank]}
Business Rules	
Notes	• This element used to be referenced from IATA's schema, but since v2.1 of the dangerous good specifications was released, no longer reference 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)

5.106 Package Height

Package Height	
Definition	The vertical component of the package's volumetric dimensions.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Float
Range of Values	
Business Rules	• This value is non-negative.
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

5.107 Package Length

Package Length	
Definition	The lateral component of the package's volumetric dimensions.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Float
Range of Values	
Business Rules	• This value is non-negative.
Notes	• The units of measure 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

5.108 Package Width

Package Width	
Definition	The depth component of the package's volumetric dimensions.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Float
Range of Values	
Business Rules	• This value is non-negative.
Notes	• The units of measure 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

5.109 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	
Data Type	Enumeration
Range of Values	One of {I, II, III}
Business Rules	• If there is hazardous cargo 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 3 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)

5.110 Packing Instruction Number

Packing Instruction Number	
Definition	A number that corresponds to packing instructions that are required by US and international regulations.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Alphanumeric String
Range of Values	
Business Rules	• Format: nnn or Ynnn
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'. • 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)

5.111 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	Enumeration
Range of Values	Up to 8 of the following values: {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

5.112 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	Alphanumeric String
Range of Values	
Business Rules	• Maximum size of 100 to limit risk of code insertion.
Notes	• 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)

5.113 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	Alpha 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

5.114 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	
Data Type	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

5.115 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	
Data Type	Complex
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

5.116 Product Name

Product Name	
Definition	The commonly used trade name associated with a hazardous material.
Alternate Names	Trade Name, Hazardous Material
Has Parts	
Is Part Of	
Data Type	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

5.117 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	
Data Type	Alphanumeric String
Range of Values	
Business Rules	• If there is hazardous cargo on board the flight, this element should be populated for emergency response usage. • In the US, Proper Shipping Name of the material or good is required by CFR 172.202 (the corresponding table is listed in 172.101).
Notes	• 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)

5.118 Q Value

Q Value	
Definition	The amount of energy released in a reaction.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	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:SpecifiedLogisticsPaackage /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)

5.119 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	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

5.120 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	
Data Type	Enumeration
Range of Values	One of {I-White, II-Yellow, III-Yellow}
Business Rules	• Limit max size to 10 to limit the vulnerability to code insertion.
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)

5.121 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	
Data Type	Complex
Range of Values	
Business Rules	• Limit size to 100 to limit the vulnerability of code insertion.
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

5.122 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	
Data Type	Complex
Range of Values	
Business Rules	• Limit max size to 100 to limit the vulnerability of code insertion.
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

5.123 Radionuclide ID

Radionuclide ID	
Definition	Identification number of each radionuclide or for mixtures of radionuclides.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Alphanumeric String
Range of Values	[0000-9999]
Business Rules	• UN/ID numbers range from UN0001-UN3600, NA numbers range from NA8000-NA9999. • Limit max size to 6 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)

5.124 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	
Data Type	Alphanumeric String
Range of Values	
Business Rules	• Limit size to 100 to limit the vulnerability of code insertion.
Notes	• 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)

5.125 Region Name

Region Name	
Definition	The name of the region within a country specific to this address.
Alternate Names	Postal Structured Address
Has Parts	
Is Part Of	
Data Type	Location or Alphanumeric String
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 9 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

5.126 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	Enumeration or Alphanumeric String
Range of Values	One or more of the following values (if enumeration): {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 text or a combination of the following 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

5.127 Reportable Quantity

Reportable Quantity	
Definition	The minimum amount of hazardous substance that is released into the environment before the Environmental Protection Agency (EPA) requires notification of the release to the National Response Center.
Alternate Names	RQ
Has Parts	
Is Part Of	
Data Type	Integer
Range of Values	Non-negative
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)

5.128 Route

Route	
Definition	The ICAO route string as depicted from the flight plan.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	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

5.129 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	Alphanumeric String
Range of Values	N/A
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

5.130 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	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

5.131 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	
Data Type	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 U.S. • 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)

5.132 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	
Data Type	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)

5.133 Shipper Address

Shipper Address	
Definition	The shipper's mailing address.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	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)

5.134 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	
Data Type	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)

5.135 Shipper Name

Shipper Name	
Definition	The Shipper's name, legal identity, and/or organization.
Alternate Names	Shipping Company, Shipper
Has Parts	
Is Part Of	
Data Type	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)

5.136 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	
Data Type	Complex
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

5.137 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	
Data Type	Complex
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

5.138 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	
Data Type	Complex
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

5.139 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	
Data Type	Complex
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

5.140 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 that is required at the end portion of the SDDG for a shipment.
Alternate Names	
Has Parts	Declaration Text: Consignor
Is Part Of	
Data Type	Complex
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

5.141 Significant Point

Significant Point	
Definition	A single point along the flight route.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Location
Range of Values	If expressed as ICAO location identifier, values comply with ICAO Doc. 7910
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

5.142 Special Form Indicator

Special Form Indicator	
Definition	A notation that the material is 'special form'.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Enumeration
Range of Values	One of {Special Form, [blank]}
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)

5.143 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	Enumeration
Range of Values	One of the following 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

5.144 Standard Capabilities Indicator

Standard Capabilities Indicator	
Definition	This element indicates that the aircraft carries the set of capabilities considered "standard" by the appropriate authority.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	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)

5.145 Street

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

5.146 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	
Data Type	Alphanumeric String
Range of Values	
Business Rules	• Limit max size to 100 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)

5.147 Supplementary Information

Supplementary 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	
Has Parts	
Is Part Of	
Data Type	Alphanumeric String
Range of Values	
Business Rules	• Limit max size to 100 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

5.148 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	Enumeration or Alphanumeric String
Range of Values	One or more of the following 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 can contain either free-form text 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

5.149 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	Alphanumeric String
Range of Values	N/A
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

5.150 Survival Equipment Type

Survival Equipment Type	
Definition	The type of equipment carried onboard 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	Enumeration
Range of Values	One or more of the following values: {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

5.151 Takeoff Alternate Aerodrome

Takeoff Alternate Aerodrome	
Definition	An alternate aerodrome (identified as one of the following: a named fix, a pair of latitude/ longitude coordinates, bearing and distance from the nearest significant point, or a marker radio beacon.) 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	Location or Alphanumeric String
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 of departure 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 that, 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 takeoff 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

5.152 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	
Data Type	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 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: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)

5.153 Time En Route – Estimated

Time En Route - Estimated	
Definition	For IFR flights, it is the estimated time required from take-off to arrive over a designated point, defined by reference to navigation aids, from which it is intended that an instrument approach procedure will be commenced, or, if no navigation aid is associated with the destination aerodrome, to arrive over the destination aerodrome. For VFR flights, the estimated time required from take-off to arrive over the destination aerodrome.
Alternate Names	Total Estimated Elapsed Time
Has Parts	
Is Part Of	
Data Type	Time Interval
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
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

5.154 Transfer Aerodromes

Transfer Aerodromes	
Definition	A list of the aerodromes through which the package has traveled en route to its final destination.
Alternate Names	
Has Parts	
Is Part Of	
Data Type	Location or Alphanumeric String
Range of Values	If expressed as ICAO location identifier, values comply with ICAO Doc. 7910
Business Rules	
Notes	• 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 4-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

5.155 Transport Index

Transport Index	
Definition	A figure representing the radiation level measured at 1 meter from the package.
Alternate Names	TI
Has Parts	
Is Part Of	
Data Type	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 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)

5.156 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 that is considered dangerous goods.
Alternate Names	UN/ID Number, UN Number, UN #
Has Parts	
Is Part Of	
Data Type	Alphanumeric String
Range of Values	[0000-9999]
Business Rules	• If there is hazardous cargo on board the flight, this element should be populated for emergency response usage. UN/ID numbers range from UN0001-UN3600 NA numbers range from NA8000-NA9999.
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)

5.157 Wake Turbulence Category

Wake Turbulence Category	
Definition	ICAO classification of the aircraft wake turbulence based on the maximum certified takeoff mass.
Alternate Names	Wake Turbulence
Has Parts	
Is Part Of	
Data Type	Enumeration
Range of Values	One of the following 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

5.158 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	
Data Type	Alphanumeric String
Range of Values	
Business Rules	• IATA specifies a maximum size of 9 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: Glossary

Term	Definition
ACP	Designator for the standard ATS message type “Acceptance,” which falls under the “Coordination” message category.
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.
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.
EST	Designator for the standard ATS message type “Estimate,” which falls under the “Coordination” message category.
FPL	Designator for the standard ATS message type “Filed flight plan,” which falls under the “Filed flight plan and associated update” message category.
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.
RCF	Designator for the standard ATS message type “Radio communication failure,” which falls under the “Emergency” message category.
RQP	Designator for the standard ATS message type “Request flight plan,” which falls under the “Supplementary” message category.
SPL	Designator for the standard ATS message type “Supplementary flight plan,” which falls under the “Supplementary” message category.
ACP	Designator for the standard ATS message type “Acceptance,” which falls under the “Coordination” message category.

Appendix B: Acronym List

Acronym	Definition
ACARS	Aircraft Communications Addressing and Reporting System
ADF	Automatic Direction Finder
ADS	Automatic Dependent Surveillance
ADS-B	Automatic Dependent Surveillance- Broadcast
ADS-C	Automatic Dependent Surveillance- Contract
AFIL	Air Filed Flight Plan
AFTN	Aeronautical Fixed Telecommunication Network
AIP	Aeronautical Information Publication
AIRM	Aeronautical Information Reference Model
AIXM	Aeronautical Information Exchange Model
ALERFA	Alert Phase
ALR	ICAO alerting message
ALTRV	Altitude Reservation
ANSP	Air Navigation Service Provider
ANSP	Air Navigation Service Provider
AOC	Airline Operations Center
APCH	Approach
AR	Arrival
ASCII	American Standard Code for Information Interchange
ASDI	Aircraft Situation Display to Industry
ASRI	Aviation Spectrum Resources
ATC	Air Traffic Control
ATFMX	Flight Approved for Exemption
ATM	Air Traffic Management
ATN	Aeronautical Telecommunication Network
ATS	Air Traffic Service
AWB	Air Waybill
CFR	Code of Federal Regulations
CIQUIME	Chemistry Information Center for Emergencies
CMS	Common Message Set
CPDLC	Controller Pilot Data Link Communications
CPL	Current Flight Plan
CSI	Criticality Safety Index
DCT	Direct
DD	Data Dictionary
DG	Dangerous Goods
DME	Distance Measuring Equipment
DOT	Department of Transportation
DUAT	Direct User Access Terminal

Acronym	Definition
EA	Enterprise Architecture
ELBA	Emergency Location Beacon-Aircraft
ELT	Emergency Locator Transmitter
EPA	Environmental Protection Agency
ERAM	En Route Automation Modernization
ERG	Emergency Response Guidebook
ETA	Estimated Time of Arrival
FAA	Federal Aviation Administration
FANS	Future Air Navigation System
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
FO	Flight Operator
FO	Flight Object
FOAS	Flight Operator Automation System
FP	Flight Plan
FSS	Flight Service Station
GBAS	Ground Based Augmentation System
GNSS	Global Navigation Satellite System
GUFI	Globally Unique Flight Identifier
HAZMAT	Hazardous Materials
HF	High Frequency
HFDL	High Frequency Data Link
Hg	Mercury
HOSP	Hospital Wing Aircraft
HOST	FAA Enroute Computer System
hPa	Hecto Pascals
IAS	Indicated Airspeed
IATA	International Air Transport Association
IAW	In Accordance With
ICAO	International Civil Aviation Organization
ICD	Interface Control Document
IFR	Instrument Flight Rules
ILS	Instrument Landing System
INCERFA	Uncertainty Phase

Acronym	Definition
INS	Inertial Navigation System
IPOP	Intermediate Point of Presence
IRS	Inertial Reference System
IRU	Inertial Reference Unit
ISO	International Organization for Standardization
kHz	Kilohertz
Km	Kilometer
Kt	Knot
LAM	Logical Acknowledgement Message
LORAN	Long Range Navigation
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
NAS	National Airspace System
NAVAID	Navigational Aid
NDB	Non-directional Beacon
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
RCF	Radio Communications Failure
RCP	Required Communication Performance
RF	Radio Frequency
RNAV	Area Navigation
RNP	Required Navigation Performance
RTF	Radio Telephone
RVSM	Reduced Vertical Separation Minima
SAR	Search and Rescue
SATCOM	Satellite Communications
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

Acronym	Definition
SSR	Secondary Surveillance Radar
STAR	Standard Terminal Arrival Route
TACAN	Tactical Air Navigation System
TACAN	Tactical Air Navigation System
TC	Transport Canada
TFMS	Traffic Flow Management System
TI	Transport Index
TSA	Transportation Safety Administration
TUFI	TFMS Unique Flight Identifier
UAT	Universal Access Transceiver
UHF	Ultra High Frequency
UML	Unified Modeling Language
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
WXXM	Weather Information Exchange Model
XML	Extensible Markup Language